DRUG EVALUATION AND CLASSIFICATION TRAINING PROGRAM

THE DRUG RECOGNITION EXPERT SCHOOL

1999 EDITION

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THE DRE SCHOOL - SCHEDULE

WEDNESDAY	THURSDAY	FRIDAY
0800-0850 SESSION I: Introduction & Overview	0800-0850 SESSION V: Continued	0800-0850 SESSION IX: Central Nervous System Depressants
0850-0900 BREAK	0850-0900 BREAK	0850-0900 BREAK
0900-1000 SESSION I: Continued	0900-1005 SESSION VI: Physiology & Drugs (Overview)	0900-1000 SESSION IX: Continued
1000-1010 BREAK	1005-1015 BREAK	1000-1010 BREAK
1010-1030 Pre-Test	1015-1110 SESSION VI: Continued	1010-1100 SESSION X: Central Nervous System Stimulants
1030-1120 SESSION II: Drugs In Society & In Motor Vehicle Operation	1110-1120 BREAK	1100-1110 BREAK
1120-1130 BREAK	1120-1200 SESSION VII: Examination of Vital Signs	1110-1200 SESSION X: Continued
1130-1230 SESSION III: Development & Effectiveness of the Program	1200-1300 LUNCH	1200-1300 LUNCH
1230-1330 LUNCH	1300-1400 SESSION VII: Continued	1300-1400 SESSION XI: Eye Examinations
1330-1440 SESSION IV: Overview of Drug Recognition Expert Procedures	1400-1410 BREAK	1400-1415 BREAK
1440-1450 BREAK	1410-1430 SESSION VII: Continued	1415-1700 SESSION XII: Alcohol Workshop
1450-1550 SESSION IV: Continued	1430-1515 SESSION VIII: Demonstrations of the Evaluation Sequence	
1550-1600 BREAK	1515-1530 BREAK	
1600-1630 SESSION IV: Continued	1530-1605 SESSION VIII: Continued	
1630-1730 SESSION V: Eye Examinations	1605-1635 QUIZ NUMBER ONE	

THE DRE SCHOOL - SCHEDULE

MONDAY	TUESDAY	WEDNESDAY	THURSDAY
0800-0830 SESSION XIII: Physician's Desk Reference	0800-0820 QUIZ NUMBER TWO	0800-0915 SESSION XXIV: Drug Combinations	0800-1000 FINAL EXAM
0830-0915 SESSION XIV: Hallucinogens	0820-0850 SESSION XVII: Continued	0915-0930 SESSION XXIV: Continued	1000-1015 BREAK
0915-0930 BREAK	0850-0900 BREAK	1005-1050 SESSION XXV: Practice Test Interpretation	1015-1200 SESSION XXIX: Classifying a Suspect-Role Play
0930-1030 SESSION XIV: Continued	0900-0945 SESSION XVIII: Practice Test Interpretation	1050-1100 BREAK	1200-1300 LUNCH
1030-1045 BREAK	0945-1020 SESSION XIX: Inhalants	1100-1200 SESSION XXVI: Preparing the Narrative Report	1300-1600 ADMINISTRATION OF THE TEST VALIDATION
1045-1130 SESSION XV: Practice Test Interpretation	1020-1030 BREAK	1200-1300 LUNCH	1600-1630 SESSION XXX: Transition to Certification Training
1130-1200 SESSION XVI: Phencyclidine (PCP)	1030-1130 SESSION XIX: Continued	1300-1430 SESSION XXVII: Practice Test Interpretation	1630-1700 Course Critique; Closing Remarks; Presentation of Certificates
1200-1300 LUNCH	1130-1145 BREAK	1430-1445 BREAK	
1300-1410 SESSION XVI: Continued	1145-1300 SESSION XX: Practice Vital Signs Examinations	1445-1530 SESSION XXVIII: Case Preparation and Testimony	
1410-1420 BREAK	1300-1400 LUNCH	1530-1545 BREAK	
1420-1515 SESSION XVII: Narcotic Analgesics	1400-1530 SESSION XXI: Cannabis	1545-1630 SESSION XXVIII: Continued	
1515-1530 BREAK	1530-1540 BREAK	1630-1700 QUIZ NUMBER FOUR	
1530-1630 SESSION XVII: Continued	1540-1640 SESSION XXII: Overview of Signs and Symptoms	1700-1800 BREAK	
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1730-1800 BREAK	1650-1730 SESSION XXIII: Resume Preparation & Maintenance		
1800-2030 OPTIONAL REVIEW SESSION #1	1730-1800 QUIZ NUMBER THREE		

SESSION I

INTRODUCTION AND OVERVIEW

SESSION I INTRODUCTION AND OVERVIEW

Upon successfully completing this session, the participants will be able to:

- State the goals and objectives of the course.
- Outline the major course content.
- Outline the schedule of major course activities.
- Outline the contents and arrangements of the student manual.

During this session, the participant will demonstrate his or her current knowledge of basic concepts and terminology relevant to the Drug Evaluation and Classification Process.

NOTE: Throughout this Manual, the term "DRE" is used to designate an individual who is specially trained to conduct examinations of suspected drug-impaired drivers. In some participating agencies, the term stands for "drug recognition expert"; in others, it means "drug recognition examiners"; and in others "drug recognition evaluator". In addition, some agencies use the terms "DRT" (for drug recognition technician) or "DRS" (drug recognition specialists). All of these are acceptable and synonymous. But for this training program, the standard term is DRE.

A. Introduction to The Second Stage of Training: The DRE School

The Drug Evaluation and Classification training program focuses on a set of examination procedures. These examinations include:

- o a breath test to determine blood alcohol concentration (BAC);
- o preliminary assessments of the subject's speech, breath, appearance, demeanor, behavior, etc;
- o examinations of the subject's eyes (for nystagmus, tracking ability, ability to converge, pupil size and pupil reaction to light);
- o psychophysical evaluations of the subject, based on divided attention tests;
- o examinations of the subject's vital signs (e.g., blood pressure, pulse rate and temperature);
- o inspections of the subject's arms, neck, nasal area, oral cavity, etc. for signs of drug ingestion.

Based on these examinations, and on other articulable evidence that may emerge during contact with the subject, a trained drug recognition expert (DRE) can reach reasonably accurate conclusions concerning the category or categories of drugs, or medical conditions, causing the impairment observed in the subject. Based on these informed conclusions, the DRE can request the collection and analysis of an appropriate chemical sample (blood or urine) to obtain corroborative, scientific evidence of the subject's drug use.

The DRE School provides detailed explanations of the examination procedures; careful demonstrations of these procedures, both "live" and via video tape; and, ample opportunities for the students to practice administering the examinations. By the completion of this course of instruction, students should be fully proficient in checking vital signs, conducting careful evaluations of eyes, administering divided attention tests and, in general, carrying out the procedural steps of the DRE's job.

However, there is one essential learning experience that this classroom training cannot provide. It cannot afford students an opportunity to practice examining subjects who are under the influence of drugs other than alcohol. For this reason, this classroom training only constitutes Phase II in the process of developing DRE skills. Phase III of the training (which commences upon the successful completion of this course) involves hands-on practice in an actual enforcement context, i.e., examining persons who are under arrest on suspicion of drug impairment.

Although this DRE School will not conclude with the student's immediate certification as a DRE, successful completion of this classroom training is nevertheless highly important. No one can advance to Certification Training until they demonstrate a mastery of basic knowledge of drug categories and their effects on the human mind and body, and of the basic skills in administering and interpreting the examinations involved in the Drug Evaluation and Classification process. All students must pass the knowledge exam with a score of 80% or greater.

Mastering the necessary knowledge and skills is not difficult, if students apply themselves diligently to study and practice. There is no reason why a student who possesses solid skills in detecting and investigating persons under the influence of alcohol cannot achieve proficiency as a DRE.

B. Goals and Objectives of the Training

The ultimate goal of the Drug Evaluation and Classification Program, and of this course of instruction, is to "help prevent crashes and avoid deaths and injuries by improving enforcement of drug-impaired driving violations".

No one knows precisely how many people operate motor vehicles while under the influence of drugs, or how many crashes, deaths and injuries these people cause. But even the most conservative estimates suggest that America's drug-impaired drivers kill thousands of people each year, and seriously injure tens of thousands of others. In one study by the University of Tennessee (1988), 40% of crash-involved drivers treated at the University's Trauma Center had drugs other than alcohol in their urine. A similar study in Maryland (1986) showed that 32% of crash-injured drivers had evidence of marijuana in their blood. As law enforcement agencies improve their abilities to detect and convict these violators, fewer crashes should occur.

It should be noted that traffic crash reduction is not the only benefit that should result from an effective Drug Evaluation and Classification program. Improved investigative skills should increase society's effectiveness in combating the drug threat in general, and result in significant economic and human savings.

The goals of this classroom training, from the viewpoint of the law enforcement agencies participating in it, are three-fold:

1. To help police officers acquire the knowledge and skills needed to distinguish individuals under the influence of alcohol only from individuals who are under the influence of other drugs, or of combinations of alcohol and other drugs, or who are suffering from an injury or illness.

2. To enable police officers to identify the broad category or categories of drugs inducing the observable signs of impairment manifested by an individual.

3. To qualify police officers to progress to Certification Training.

The objectives of this course, from the viewpoint of the individual students who enroll in it, are as follows:

- to be able to describe the involvement of drugs in impaired driving incidents.
- to be able to name the seven broad categories of drugs, and recognize their effects on human beings.
- to be able to describe, and administer properly, the psychophysical and physiologic examinations included in the Drug Evaluation and Classification process.
- to be able to document the results of Drug Recognition Expert examinations.
- to interpret the results of these examinations accurately.
- to be able to prepare a narrative Drug Influence Report based on these examinations.
- to be able to testify properly in typical drug evaluation cases.
- to develop and maintain up-to-date, relevant resumes to document their qualifications as DREs.

Throughout this classroom training, and especially at its conclusion, students will be tested to assess their ability to do these things.

C. Overview of Content And Schedule

During this classroom training some the major content topics will be:

- the incidence of drugs in society and in vehicle operation,
- the development and effectiveness of the DRE Program,
- the DRE procedures,

- o eye examinations,
- o physiology and drugs,
- o vital signs examination,
- o Physicians Desk Reference,
- o interviewing suspects,
- o resume, case preparation and testimony,
- o interpreting and documenting the results of the examination.

Since hands-on practice is the principal learning activity, time will be spent on conducting the eye examinations, psychophysical tests, interpreting the examination results, administering vital signs examinations, practicing the DEC procedures and simulating the drug-impaired examinations.

D. Overview of Student Manual

The student manual is be used as a reference and is a summary of material presented. It is required that you to attend every session of the DRE School in order to proceed to the certification training phase.

THE DRE SCHOOL
PRE-TEST

NAME _____ AGENCY _____

SCHOOL LOCATION _____ DATE _____

Circle the letter(s) corresponding to the correct answer(s) for each question. **Note: Some questions have more than one correct answer.**

1. The Autonomic Nervous Sub-system has **sympathetic** nerves and ____ nerves.

   A. Parasympathetic
   B. Hypersympathetic
   C. Hyposympathetic
   D. Metasympathetic
   E. Transsympathetic

2. The technical term for **constricted pupils** is _____.

   A. Mydriasis large pupils
   B. Mithosis
   C. Ptosis
   D. Ptarsis
   E. Miosis small pupils

3. Suppose you examine a suspect that you <u>know</u> is under the combined influence of PCP and Cocaine, and you observe that he or she exhibits horizontal gaze nystagmus. This is an example of _____.

   A. A Synergistic Effect
   B. An Additive Effect
   C. An Antagonistic Effect
   D. The Null Effect
   E. An Overlapping Effect

4. Which of the following ordinarily <u>will</u> enhance horizontal gaze nystagmus? (Circle **all** that usually produce HGN)

   A. Methamphetamine
   B. Valium
   C. Peyote
   D. Cannabis
   E. Cocaine

5. **Ritalin** is an example of _____.

   A. A CNS Stimulant
   B. A Narcotic Analgesic
   C. An Hallucinogen
   D. A CNS Depressant
   E. An analog of Phencyclidine

6. Which of the following usually <u>will be true</u> in a subject who is under the influence of LSD? (Circle **all** that usually would be true)

   A. Blood pressure will be lowered
   B. Eyes will not be able to converge
   C. Horizontal gaze nystagmus will be present
   D. Pulse rate will be slowed
   E. Pupils will be dilated

7. Unless it is physically impossible to do so, a DRE will always use the _____ pulse point to measure a suspect's pulse rate.

   A. Right Brachial
   B. Right Carotid
   C. Right Radial
   D. Left Radial
   E. Left Brachial

8. Which of the following is <u>not</u> classified as an Hallucinogen? (Circle **all** that are not Hallucinogens)

   A. MDMA
   B. DOM
   C. MDA
   D. STP
   E. MPPP

9. Amphetamines produce the same effects as Cocaine with the exception of _____.

   A. Pupil dilation
   B. Pulse rate elevation
   C. Anesthesia
   D. Blood pressure elevation
   E. <u>No exception</u>: both Cocaine and Amphetamines produce all four effects listed above

10. The gap between two nerve cells is called the _____.

A. Axon
B. Dendrite
C. Neuron
D. Synapse
E. Vesicle

11. How many distinct, validated clues have been established for the Romberg test?

A. Eight
B. Six
C. Four
D. Three
E. No validated clues have been established for that test.

12. How many distinct, validated clues have been established for the Walk and Turn test?

A. Eight
B. Six
C. Four
D. Three
E. No validated clues have been established for that test.

13. The normal range of pupil size is _____.

A. 2.5mm to 6.0mm
B. 3.0mm to 6.0mm
C. 3.0mm to 6.5mm
D. 3.5mm to 6.5mm
E. We do not attempt to specify "normal ranges" in the DRE program.

14. The drug _____ is an example of a synthetic Narcotic Analgesic. (Circle **all** that are synthetic Narcotic Analgesics)

A. Dilaudid
B. Percodan
C. Demerol
D. Codeine
E. Hycodan

15. The drug _____ is an example of an anti-anxiety tranquilizer. (Circle **all** that are anti-anxiety tranquilizers)

A. Xanax
B. Thorazine
C. Elavil
D. Amobarbital
E. Chloral Hydrate

16. In a blood pressure measurement, the **lower** number is called the _____ pressure.

A. Pulmonary
B. Atrial
C. Diastolic
D. Arterial
E. Systolic

17. The term **"dissociative anesthetic"** best applies to _____.

A. Heroin
B. Thorazine
C. PCP
D. Methadone
E. Cocaine

18. Which of the following usually <u>will not</u> cause the pupils to dilate? (Circle **all** that usually <u>don't</u> cause dilation).

A. MDMA
B. Methaqualone
C. Biphetamine
D. Peyote
E. PCP

19. Suppose you examine a suspect that you <u>know</u> is under the combined influence of PCP and Marijuana, and you find that his or her pulse rate is 102. This is an example of _____.

A. A Synergistic Effect
B. An Overlapping Effect
C. The Null Effect
D. An Antagonistic Effect
E. An Additive Effect

20. Which sub-category of Narcotic Analgesics usually causes elevated body temperature?

A. The Synthetics
B. The Alkaloids
C. The Opium Derivatives
D. **All** Narcotic Analgesics cause elevated body temperature
E. **No** Narcotic Analgesics cause elevated body temperature

21. The normal range of pulse rate is_____.

A. 60 to 90
B. 60 to 100
C. 70 to 90
D. 70 to 100
E. We do not attempt to specify **"normal ranges"** in the DRE program

22. The technical term for an abnormally rapid pulse rate is _____.

A. Myocardia
B. Hypercardia
C. Tachycardia
D. Hypocardia
E. Bradycardia ↓ pulse Rate

23. A University of Tennessee study, in 1988, showed that _____ percent of drivers injured in crashes had drugs other than Alcohol in their urine.

A. 50%
B. 40%
C. 30%
D. 20%
E. Slightly less than 15%

24. "Crank" is a street name for _____.

A. Heroin
B. Cocaine
C. PCP
D. Methamphetamine
E. Methaqualone

25. Which of the following is not a validated clue for the One Leg Stand test? (Circle **all** that are **not** validated clues)

A. Hopping
B. Raising the Arms
C. Putting the Foot Down
(D) Failing to Count Out Loud
E. Swaying

DRUG EVALUATION AND CLASSIFICATION PROGRAM

GLOSSARY OF TERMS

ADDITIVE EFFECT

One mechanism of polydrug interaction. For a particular indicator of impairment, two drugs produce an additive effect if they both affect the indicator in the same way. For example, cocaine elevates pulse rate and PCP also elevates pulse rate. The combination of cocaine and PCP produces an additive effect on pulse rate.

AFFERENT NERVES

See: "Sensory Nerves."

ALKALOID

A chemical that is found in, and can be physically extracted from, some substance. For example, morphine is a natural alkaloid of opium. It does not require a chemical reaction to produce morphine from opium.

ANALGESIC

A drug that relieves or allays pain.

ANALOG (of a drug)

An analog of a drug is a chemical that is very similar to the drug, both in terms of molecular structure and in terms of psychoactive effects. For example, the drug Ketamine is an analog of PCP.

ANESTHETIC

A drug that produces a general or local insensibility to pain and other sensation.

ANTAGONISTIC EFFECT

One mechanism of polydrug interaction. For a particular indicator of impairment, two drugs produce an antagonistic effect if they affect the indicator in opposite ways. For example, heroin constricts pupils while cocaine dilates pupils. The combination of heroin and cocaine produces an antagonistic effect on pupil size. Depending on how much of each drug was taken, and on when they were taken, the suspect's pupils could be constricted, or dilated, or within the normal range of size.

ARRHYTHMIA

An abnormal heart rhythm.

ARTERY

The strong, elastic blood vessels that carry blood from the heart to the body tissues.

ATAXIA

A blocked ability to coordinate movements. A staggering walk and poor balance may be caused by damage to the brain or spinal cord. This can be the result of trauma, birth defect, infection, tumor, or drug use.

AUTONOMIC NERVE

A motor nerve that carries messages to the muscles and organs that we do not consciously control. There are two kinds of autonomic nerves, the sympathetic nerves and parasympathetic nerves.

AXON

The part of a neuron (nerve cell) that sends out a neurotransmitter.

BLOOD PRESSURE

The force exerted by blood on the walls of the arteries. Blood pressure changes continuously, as the heart cycles between contraction and expansion.

BRADYCARDIA

Abnormally slow heart rate; pulse rate below the normal range.

BRUXISM

Grinding the teeth. This behavior is often seen in persons who are under the influence of cocaine or other CNS stimulants.

CANNABIS

1. One of the seven drug categories. Cannabis includes marijuana, hashish, hash oil, and marinol.

2. Several species of plants from which marijuana and related products are made (e.g., Cannabis Sativa and Cannabis Indicia).

CARBOXY THC

A metabolite of THC (tetrahydrocannabinol).

CHEYNE

Stokes Respiration - Abnormal pattern of breathing. Marked by breathlessness and deep, fast breathing.

CNS (Central Nervous System)

A system within the body consisting of the brain, the brain stem, and the spinal cord.

CNS DEPRESSANTS

One of the seven drug categories. CNS depressants include alcohol, barbiturates, anti-anxiety tranquilizers, and numerous other drugs.

CNS STIMULANTS

One of the seven drug categories. CNS stimulants include cocaine, the amphetamines, ritalin, preludin, and numerous other drugs.

CONJUNCTIVITIS

An inflammation of the mucous membrane that lines the inner surface of the eyelids caused by infection, allergy, or outside factors. May be bacterial or viral. Persons suffering from conjunctivitis may show symptoms in one eye only. This condition is commonly referred to as "pink eye", a condition that could be mistaken for the bloodshot eyes produced by alcohol or Cannabis.

CONVERGENCE

The "crossing" of the eyes that occurs when a person is able to focus on a stimulus as it is pushed slowly toward the bridge of his or her nose. (See, also, "Lack of Convergence".)

CRACK

A hard chunk form of cocaine that produces a very intense, but relatively short duration "high". (Rock is a different process.)

CYCLIC BEHAVIOR

A manifestation of impairment due to certain drugs, in which the suspect alternates between periods (or cycles) of intense agitation and relative calm. Cyclic behavior, for example, sometimes will be observed in persons under the influence of PCP.

DENDRITE

The part of a neuron (nerve cell) that receives a neurotransmitter.

DIACETYL MORPHINE

The chemical name for Heroin.

DIASTOLIC

The lowest value of blood pressure. The blood pressure reaches its diastolic value when the heart is fully expanded, or relaxed (Diastole).

DIPLOPIA

Double vision.

DISSOCIATIVE ANESTHETIC

A drug that inhibits pain by cutting off (or "disassociating") the brain's perception of the pain. PCP is usually described as a dissociative anesthetic.

DIVIDED ATTENTION

Concentrating on more than one thing at a time. The four psychophysical tests used by DREs require the suspect to divide attention.

DRUG

Any substance, which when taken into the human body, can impair the ability of the person to operate a vehicle safely.

DYSPNEA

Shortness of breath.

DYSMETRIA

An abnormal condition that prevents the affected person from properly estimating distances linked to muscular movements.

DYSPHORIA

A disorder of mood. Feelings of depression and anguish.

EFFERENT NERVES

See: "Motor Nerves".

ENDOCRINE SYSTEM

The network of glands that do not have ducts and other structures. They secrete hormones into the blood stream to affect a number of functions in the body.

EXPERT WITNESS

A person skilled in some art, trade, science or profession, having knowledge of matters not within knowledge of persons of average education, learning and experience, may assist a jury in arriving at a verdict by expressing an opinion on a state of facts shown by the evidence and based upon his or her special knowledge. (NOTE: Only the court can determine whether a witness is qualified to testify as an expert.)

FLASHBACK

A vivid recollection of a portion of an hallucinogenic experience. Essentially, it is a very intense daydream. There are three types: (1) emotional -- feelings of panic, fear, etc.; (2) somatic -- altered body sensations, tremors, dizziness, etc.; and (3) perceptual -- distortions of vision, hearing, smell, etc.

GARRULITY

Chatter, rambling or pointless speech. Talkative.

HALLUCINATION

A sensory experience of something that does not exist outside the mind, e.g., seeing, hearing, smelling, or feeling something that isn't really there. Also, having a distorted sensory perception, so that things appear differently than they are.

HALLUCINOGENS

One of the seven drug categories. Hallucinogens include LSD, MDMA, peyote, psilocybin, and numerous other drugs.

HASHISH

A form of cannabis produced by boiling, compressing and drying the leaves of the female marijuana plant. Hashish has a higher concentration of THC (tetrahydrocannabinol) than does the marijuana from which it is produced.

HASH OIL

A liquid extracted from hashish, and containing a relatively high concentration of THC.

HEROIN

A powerful and widely-abused narcotic analgesic that is chemically derived from morphine. The chemical, or generic name of heroin is "diacetyl morphine".

HIPPUS

A rhythmic pulsating of the pupils of the eyes, as they dilate and constrict within fixed limits.

HOMEOSTASIS

The dynamic balance, or steady state, involving levels of salts, water, sugars, and other materials in the body's fluids.

HORIZONTAL GAZE NYSTAGMUS

Involuntary jerking of the eyes occurring as the eyes gaze to the side.

HORMONES

Chemicals produced by the body's endocrine system that are carried through the blood stream to the target organ. They exert great influence on the growth and development of the individual, and that aid in the regulation of numerous body processes.

HYDROXY THC
A metabolite of THC (tetrahydrocannabinol).

HYPERFLEXIA
Exaggerated or over extended motions.

HYPERGLYCEMIA
Excess sugar in the blood.

HYPERTENSION
Abnormally high blood pressure. Do not confuse this with hypotension.

HYPOGLYCEMIA
An abnormal decrease of blood sugar levels.

HYPOTENSION
Abnormally low blood pressure. Do not confuse this with hypertension.

HYPOTHERMIA
Decreased body temperature.

ICE
A crystalline form of methamphetamine that produces a very intense and fairly long-lasting "high".

INHALANTS
One of the seven drug categories. The inhalants include volatile solvents (such as glue and gasoline), aerosols (such as hair spray and insecticides) and anesthetic gases (such as nitrous oxide).

INSUFFLATION
See "snorting".

INTEGUMENTARY SYSTEM
The skin and accessory structures, hair and nails. Functions include protection, maintenance of body temperature, excretion of waste, and sensory perceptions.

INTRAOCULAR
"Within the eyeball".

KOROTKOFF SOUNDS
A series of distinct sounds produced by blood passing through an artery, as the external pressure on the artery drops from the systolic value to the diastolic value.

LACK OF CONVERGENCE

The inability of a person's eyes to converge, or "cross" as the person attempts to focus on a stimulus as it is pushed slowly toward the bridge of his or her nose.

MARIJUANA

Common term for the Cannabis Sativa plant. Usually refers to the dried leaves of the plant. This is the most common form of the cannabis category.

MARINOL

A drug containing a synthetic form of THC (tetrahydrocannabinol). Marinol belongs to the cannabis category of drugs, but marinol is not produced from any species of cannabis plant.

METABOLISM

The sum of all chemical processes that take place in the body as they relate to the movements of nutrients in the blood after digestion, resulting in growth, energy, release of wastes, and other body functions. The process by which the body, using oxygen, enzymes and other internal chemicals, breaks down ingested substances such as food and drugs so they may be consumed and eliminated. Metabolism takes place in two phases. The first step is the constructive phase (anabolism) where smaller molecules are converted to larger molecules. The second steps is the destructive phase (catabolism) where large molecules are broken down into smaller molecules.

METABOLITE

A chemical product, formed by the reaction of a drug with oxygen and/or other substances in the body.

MIOSIS

Abnormally constricted pupils.

MOTOR NERVES

Nerves that carry messages away from the brain, to be body's muscles, tissues, and organs. Motor nerves are also known as efferent nerves.

MYDRIASIS

Abnormally dilated pupils.

NARCOTIC ANALGESICS

One of the seven drug categories. Narcotic analgesics include opium, the natural alkaloids of opium (such as morphine, codeine, and thebaine), the derivatives of opium (such as heroin, dilaudid, metopon, percodan and hycodan), and the synthetic narcotics (such as demerol and numorphan).

NERVE

A cord-like fiber that carries messages either to or from the brain. For drug evaluation and classification purposes, a nerve can be pictured as a series of "wire-like" segments, with small spaces or gaps between the segments.

NEURON

A nerve cell. The basic functional unit of a nerve. It contains a nucleus within a cell body with one or more axons and dendrites.

NEUROTRANSMITTER

Chemicals that pass from the axon of one nerve cell to the dendrite of the next cell, and that carry messages across the gap between the two nerve cells.

NULL EFFECT

One mechanism of polydrug interaction. For a particular indicator of impairment, two drugs produce a null effect if neither of them affects that indicator. For example, PCP does not affect pupil size, and alcohol does not affect pupil size. The combination of PCP and alcohol produces a null effect on pupil size.

NYSTAGMUS

An involuntary jerking of the eyes.

"ON THE NOD"

A state of deep relaxation, induced by impairment due to heroin or other narcotic analgesic. The suspect's eyelids droop, and chin rests on the chest. Suspect may appear to be asleep, but can be easily aroused and will respond to questions.

OVERLAPPING EFFECT

One mechanism of polydrug interaction. For a particular indicator of impairment, two drugs produce an overlapping effect if one of them affects the indicator but the other doesn't. For example, cocaine dilates pupils while alcohol doesn't affect pupil size. The combination of cocaine and alcohol produces an overlapping effect on pupil size: the combination will cause the pupils to dilate.

PALLOR

An abnormal paleness or lack of color in the skin.

PARANOIA

Mental disorder characterized delusions and the projection of personal conflicts, that are ascribed to the supposed hostility of others.

PARAPHERNALIA

Drug paraphernalia are the various kinds of tools and other equipment used to store, transport or ingest a drug. Hypodermic needles, small pipes, bent spoons, etc., are examples of drug paraphernalia. The singular form of the word is "paraphernalium". For example, one hypodermic needle would be called a "drug paraphernalium".

PARASYMPATHETIC NERVE

An autonomic nerve that commands the body to relax and to carry out tranquil activities. The brain uses parasympathetic nerves to send "at ease" commands to the muscles, tissues, and organs.

PARASYMPATHOMIMETIC DRUGS

Drugs that mimic neurotransmitter associated with the parasympathetic nerves. These drugs artificially cause the transmission of messages that produce lower blood pressure, drowsiness, etc.

PDR (Physician's Desk Reference)

A basic reference source for drug recognition technicians. The PDR provides detailed information on the physical appearance and psychoactive effects of all licitly-manufactured drugs.

PHENCYCLIDINE

A contraction of PHENYL CYCLOHEXYL PIPERIDINE, or PCP. Phencyclidine is the name of one of the seven drug categories, and is also the name of the major drug in that category.

PHENYL CYCLOHEXYL PIPERIDINE (PCP)

1. One of the seven drug categories, often called "phencyclidine".
2. A specific drug belonging to the phencyclidine category.

PHYSIOLOGY

The study of living organisms and the changes that occur during activity.

PILOERECTION

Literally, "hair standing up", or goose bumps. This condition of the skin is often observed in persons who are under the influence of LSD.

PSYCHEDELIC

A mental state characterized by a profound sense of intensified or altered sensory perception sometimes accompanied by hallucinations.

PSYCHOPHYSICAL TESTS

Methods of investigating the mental (psycho-) and physical characteristics of a person suspected of alcohol or drug impairment. Most psychophysical tests employ the concept of divided attention to assess a suspect's impairment.

PSYCHOTOGENETIC

Literally, "creating psychosis" or "giving birth to insanity". A drug is considered to be psychotogenetic if persons who are under the influence of the drug become insane, and remain so after the drug wears off.

PSYCHOTOMIMETIC

Literally, "mimicking psychosis" or "impersonating insanity". A drug is considered to be psychotomimetic if persons who are under the influence of the drug look and act insane while they are under the influence.

PTOSIS

Droopy eyelids.

PULSE

The expansion and relaxation of the walls of an artery, caused by the surging flow of blood.

PULSE RATE

The number of expansions of an artery per minute.

REBOUND DILATION

A phenomenon that reportedly is sometimes observed when direct light is shined into the eye. The pupil may be seen to pulsate in size, growing steadily larger on the expansion fluctuations.

RESTING NYSTAGMUS

A special case of horizontal gaze Nystagmus, in which the eyeball can be observed jerking side-to-side while the eye is looking straight ahead.

RESUME

A written summary of a person's education, training, experience, noteworthy achievements and other relevant information about a particular topic. (Pronounced 'rez-ew-may".)

SCLERA

A dense white fibrous membrane that, with the cornea, forms the external covering of the eyeball (i.e., the white part of the eye).

SENSORY NERVES

Nerves that carry messages to the brain, from the various parts of the body, including notably the sense organs(eyes, ears, etc.). Sensory nerves are also known as afferent nerves.

SINSEMILLA

The unpollenated female cannabis plant, having a relatively high concentration of THC.

SFST

Standardized Field Sobriety Testing. There are three SFSTs, namely Horizontal Gaze Nystagmus (HGN), Walk and Turn, and One Leg Stand. Based on a series of controlled laboratory studies, scientifically validated clues of alcohol impairment have been identified for each of these three tests. They are the only Standardized Field Sobriety Tests for which validated clues have been identified.

SNORTING

One method of ingesting certain drugs. Snorting requires that the drug be in powdered form. The user rapidly draws the drug up into the nostril, usually via a paper or glass tube. Snorting is also known as insufflation.

SPHYGMOMANOMETER

A medical device used to measure blood pressure. It consists of an arm or leg cuff with an air bag attached to a tube and a bulb for pumping air into the bag, and a gauge for showing the amount of air pressure being pressed against the artery.

STETHOSCOPE

A medical instrument used, for drug evaluation and classification purposes, to listen to the sounds produced by blood passing through an artery.

SYMPATHETIC NERVE

An autonomic nerve that commands the body to react in response to excitement, stress, fear, etc. The brain uses sympathetic nerves to send "wake up calls" and "fire alarms" to the muscles, tissues and organs.

SYMPATHOMIMETIC DRUGS

Drugs that mimic the neurotransmitter associated with the sympathetic nerves. These drugs artificially cause the transmission of messages that produce elevated blood pressure, dilated pupils, etc.

SYNAPSE (or Synaptic Gap)

The gap or space between two neurons (nerve cells).

SYNESTHESIA

A sensory perception disorder, in which an input via one sense is perceived by the brain as an input via another sense. An example of this would be a person "hearing" a phone ring and "seeing" the sound as a flash of light. Synesthesia sometimes occurs with persons under the influence of hallucinogens.

SYSTOLIC

The highest value of blood pressure. The blood pressure reaches its systolic value when the heart is fully contracted (systole), and blood is sent surging into the arteries.

TACHYCARDIA

Abnormally rapid heart rate; pulse rate above the normal range.

TACHYPNEA

Abnormally rapid rate of breathing.

THC (Tetrahydrocannabinol)

The principal psychoactive ingredient in drugs belonging to the cannabis category.

TOLERANCE

An adjustment of the drug user's body and brain to the repeated presence of the drug. As tolerance develops, the user will experience diminishing psychoactive effects from the same dose of the drug. As a result, the user typically will steadily increase the dose he or she takes, in an effort to achieve the same psychoactive effect.

TRACKS

Scar tissue usually produced by repeated injection of drugs, via hypodermic needle, along a segment of a vein.

VERTICAL NYSTAGMUS

An up-and-down jerking of the eyeball that occurs as the eyes gaze upward in the vertical plane.

VOIR DIRE

A french expression literally meaning "to see, to say". Loosely, this would be rendered in English as "To seek the truth", or "to call it as you see it". In a law or court context, one application of voir dire is to question a witness to assess his or her qualifications to be considered an expert in some matter pending before the court.

VOLUNTARY NERVE

A motor nerve that carries messages to a muscle that we consciously control.

WITHDRAWAL

This occurs in someone who is physically addicted to a drug when he or she is deprived of the drug. If the craving is sufficiently intense, the person may become extremely agitated, and even physically ill. Withdrawal from heroin is reported to be an especially unpleasant experience.

SESSION II

DRUGS IN SOCIETY AND IN VEHICLE OPERATION

SESSION II DRUGS IN SOCIETY AND IN VEHICLE OPERATION

Upon successfully completing this session, the participants will be able to:

- Define the term "drug" in the context of this course.
- Name the seven major categories of drugs that are relevant to the Drug Evaluation and Classification Process.
- State in approximate, quantitative terms the incidence of drug use among various segments of the American public.
- State in approximate, quantitative terms the incidence of drug involvement in motor vehicle crashes and other driving incidents.
- Correctly answer the "topics for study" questions at the end of this Section.

A. Definition And Categories of Drugs

The word "drug" means many things to many people. The word is used in a number of different ways, by different people, to convey some very different ideas.

For purposes of this training, a simple, enforcement-oriented definition is needed:

A drug is any substance, which, when taken into the human body, can impair the ability of the person to operate a vehicle safely.

This definition is adapted from the California Vehicle Code, Section 312, and reflects the traffic safety orientation of this training program.

It is worth noting that this simple, enforcement-oriented definition excludes many substances that physicians and others would consider "drugs". For example, nicotine (cigarettes) and acetyl salicylic acid (aspirin) would not be considered "drugs" for purposes of this training. Similarly, this definition includes as "drugs" many substances that physicians wouldn't ordinarily think of when they hear the word. Model airplane glue, for example, is a "drug" for purposes of this training.

Under this simple definition, there are seven broad categories of drugs.

Central Nervous System Depressants

Examples
Alcohol
Barbiturates
Anti-Anxiety Tranquilizers
Muscle Relaxers

Central Nervous System Stimulants

Examples
Cocaine
Amphetamines
Methamphetamines
Ritalin

Hallucinogens

Examples
LSD
Psilocybin
Peyote

Phencyclidine (PCP)

This category consists of the drug, PCP, and its various analogs.

Narcotic Analgesics

Examples
Heroin
Codeine
Demerol

Inhalants

Examples
Glue
Gasoline
Aerosols

Cannabis

This category includes the various forms and products of Cannabis plants (e.g., marijuana, hashish, etc.)

Each category produces a different set of effects on the human mind and body. Each category exhibits different signs of drug influence, signs which come to light in the Drug Evaluation and Classification examinations. Each category also includes drugs that are widely abused.

B. Incidence And Characteristics of Drug Use in America

Estimates of the number of American drug users vary widely and are difficult to pinpoint with any accuracy. It is known that one drug, alcohol is at least occasionally used by at least a majority of adults in this country. Despite the fact that almost all of the alcohol consumed in this country is legally manufactured -- and taxed -- under fairly close governmental scrutiny, experts disagree as to how many people abuse alcohol, how much they consume, how frequently, etc. Knowledge of consumption patterns of other drugs is even less exact, since these drugs often are produced and sold illegally.

Nevertheless, virtually all experts agree that millions of Americans use drugs other than alcohol. The National Institute on Drug Abuse estimated that in 1996, more than 13 million Americans regularly used illicit drugs. The Substance Abuse and Mental Health Administration estimated, in a 1996 report, that someone in America tries Marijuana for the first time every 14 seconds and also reported first time Cocaine use occurred every 59 seconds. This same report estimated that 18 million Americans regularly use Marijuana. In an article published in February, 1989, the Washington Post indicated that several million Americans appear to use amphetamines; that same article reported an alarming increase in the use of

Methamphetamine, or "Crank" in recent months. Federally sponsored surveys during the late 1970's and early 1980's put the estimated number of Hallucinogen users at one million; however, due to the recent upsurge in popularity of LSD, especially among high school students, this figure has nearly doubled. The number of Narcotic addicts is estimated to be nearly 250,000.

Certain prescription drugs evidently are widely used. As reported in the Washington Post (Tuesday, February 17, 1987) there were sixty-one million prescriptions for Valium, Librium and similar central nervous system depressants written in the United States during 1985.

One fact that is abundantly clear is that many drug users don't stick with only one substance, but instead routinely ingest more than one drug category at a time. This behavior is called "polydrug" use (the prefix "poly" derives from the Greek word for "many"). Some very commonly abused combinations of drugs include:

- Alcohol and virtually any other drug (for example, out of 173 drivers arrested by LAPD on suspicion of being under the influence of drugs, 81 -- or 47% -- had consumed alcohol and some other drug).

- Marijuana and PCP (A very common way of ingesting PCP is to sprinkle it on a marijuana cigarette and smoke it. The user then automatically ingests both PCP and Cannabis.)

- Cocaine and Heroin (This combination has its own "street name": it is commonly called a "speedball".)

- Heroin and Amphetamine (This combination sometimes is called a "poor man's speedball".)

- Heroin and PCP (Sometimes called a "fireball".)

- "Crack" Cocaine and PCP (Sometimes called "space base".)

- "Crack" cocaine and marijuana (Sometimes called "primo".)

- "Crack" and Methamphetamine (Sometimes called "croak".)

The practice of polydrug use is so common that a drug recognition technician should expect to encounter many suspects who are under the influence of more than one category of drugs. Indeed, at some times and places, polydrug use may be more common than single drug use.

Drug use remains particularly common among teenagers and young adults. In its 1996 survey, the National Institute on Drug Abuse (NIDA) found that 42% of high school seniors reported using illegal drugs during their senior year and 22% of high school seniors used Marijuana at least once a month. The USA Today reported (on September 17, 1987) that 70% of high school coaches believe that drug use among their athletes is a serious problem. In 1987, NIDA reported that about 30% of college seniors have tried cocaine.

C. Incidence of Drug Impaired Driving

Accurate data on the frequency with which people drive while under the influence of drugs are very hard to come by. First of all, many impaired drivers are never detected. Secondly, since many drug users also drink alcohol, when they are stopped for impaired driving they may be arrested (and tabulated in statistics) as alcohol impaired drivers only. Thirdly, when they are involved in crashes, they may not be tested for drugs other than alcohol.

Nevertheless, some limited studies have been conducted that suggest that drug impaired driving is a problem of significant proportions.

(1) A North Carolina study of 600 drivers killed in single-vehicle crashes during 1978-81 showed that 14% had drugs other than alcohol in them at the time of the crash. These drugs included marijuana; barbiturates and methaqualone (central nervous system depressants); cocaine and amphetamines (central nervous system stimulants); PCP; and, opiates (narcotic analgesics). It is especially noteworthy that most of the fatally injured, drug using drivers in this study also had consumed alcohol. In fact, 10% of all of these fatally injured drivers had blood alcohol concentrations of 0.10% or higher and also had drugs other than alcohol in them.

(2) A study was conducted in California of young (15-34 years old) male drivers killed in crashes during 1982 and 1983. This study covered 440 such drivers. More than half (51%) were found to have some drug or drugs other than alcohol in them. The most prevalent drug other than alcohol was cannabis, which was found in 37% of these young dead drivers. Nearly one-third of these 440 dead drivers (30%) had alcohol and cannabis in them.

(3) In what is probably the most comprehensive study of this kind conducted to date, the University of Tennessee Medical Center analyzed the urine samples of crash-injured drivers for a broad spectrum of drugs, and found that forty percent had evidence of drugs other than alcohol.

(4) A 1997 NIDA future study of drug use among high school seniors disclosed drug use trends as shown in the table below:

Drug	Ever used	Past year	Past month
Marijuana	49.6%	38.5%	23.7%
Cocaine	8.7	5.5	2.3
Crack	3.9	2.4	0.9
Stimulants	16.5	10.2	4.8
LSD	13.6	8.4	3.1
PCP	3.9	2.3	0.7
Heroin	2.1	1.2	0.5

1997 - OSBI Study
52% of PRE Agents Used
2 other categories other than EtOH

Topics for Study

1. What does the term "drug" mean, as it is used in this course?

2. What are the seven categories of drugs? To which category does alcohol belong? To which category does cocaine belong?

3. What does "polydrug use" mean?

4. What is a "speedball"? What is "Space Base"?

5. What percentage of crash injured drivers had drugs in their urine, in the University of Tennessee study?

6. According to NIDA, what proportion of high school seniors smoke marijuana during their senior year?

SESSION III

DEVELOPMENT AND EFFECTIVENESS OF THE DRUG EVALUATION AND CLASSIFICATION PROCESS

SESSION III DEVELOPMENT AND EFFECTIVENESS OF THE DRUG EVALUATION AND CLASSIFICATION PROCESS

Upon successfully completing this session, the participants will be able to:

- State the origin and evolution of the drug evaluation and classification program.
- Describe research and demonstration project results that validate the effectiveness of the program.
- State the impact of legal precedents established by case law.
- Correctly answer the "topics for study" questions at the end of this Section.

A. Origin and Evolution of the Program

The Drug Evaluation and Classification Program was developed by personnel of the Los Angeles Police Department. The initial impetus for the program stemmed from the frequent encounters, by experienced traffic enforcement officers, with drivers who were clearly impaired but whose blood alcohol concentrations were very low or zero. The logical suspicion was that these drivers were under the influence of drugs other than alcohol. But obtaining convincing evidence to back up that suspicion was not easy. Occasionally, officers succeeded in having physicians examine their low-BrAC suspects, sometimes resulting in a medical diagnosis of drug influence. But medical personnel typically receive little or no training in the recognition of specific signs of drug impairment, particularly at street level doses; therefore, they often were unable or reluctant to offer a judgment about a suspect's condition. As a result, many drivers who almost certainly were under the influence were not prosecuted or convicted.

Two sergeants were instrumental in organizing a program to help police officers develop the skills needed to perform their own assessments of drug-impaired drivers. One was Dick Studdard, a traffic officer, the other was Len Leeds, a narcotics officer. They undertook independent research by consulting with physicians, enrolling in relevant courses, studying text books and technical articles, etc. And, they secured management level support within LAPD to continue and to accelerate the research and development effort. With the assistance of many others, Sergeants Studdard and Leeds ultimately succeeded in developing a drug recognition program based on a three-step process:

STEP ONE
Verify that the suspect is impaired, and verify that the suspect's blood alcohol concentration is not consistent with the degree of impairment that is evident.

STEP TWO
Determine whether the impairment is drug related or medically related (i.e., injury or illness). Diabetic,

STEP THREE
Use proven diagnostic procedures to determine the category (or combination of categories) of drugs that is the likely cause of the impairment.

In 1979, the Drug Recognition program received the official recognition of the LAPD.

Persons unfamiliar with drugs sometimes wonder why it is necessary to use an elaborate set of diagnostic procedures to point toward the likely category of drugs. At first glance, it might seem that the easily observable inconsistency between the suspect's impairment and his or her BrAC would be sufficient. In other words, if the suspect is obviously impaired, and if the alcohol level in the suspect's blood is not enough to account for that impairment, why not simply obtain a blood sample and analyze it for drugs? For several reasons, this simplistic approach would not work.

- The request for a blood or urine sample should be based on (at least) the strongest articulable evidence of drugs that is available. The mere inconsistency between BrAC and observable impairment might not be deemed (by courts, or by motor vehicle licensing agencies) as sufficient to justify the subsequent chemical test. For example, it could be argued that the suspect is ill or injured, or is simply very susceptible to the effects of even low doses of alcohol. It is preferable if the officer who initiates the chemical test for drugs can articulate a credible basis for believing that those drugs are present.

- The suspect may simply refuse to submit to the test. Although that action might put the suspect's driver's license in jeopardy of suspension or revocation, it also will deny the prosecution access to the scientific evidence of drug involvement. Conviction or acquittal in such a case may hinge on the officer's ability to submit detailed and convincing testimony concerning the signs pointing toward a specific category or categories of drugs.

- Chemical tests of blood or urine usually disclose only whether or not a particular drug was recently used. The chemical test cannot be relied upon to determine whether the drug was psychoactive in the suspect at that time (i.e., whether the suspect was "under the influence" of the drug, within the meaning of the law). The DRE is needed to establish the fact that the drug was indeed causing impairment.

- Analysis of blood (or urine) samples for "drugs" can be very expensive, and may require a large volume. Practical constraints require that the officer requesting the chemical analysis be able to point the laboratory technician toward the type of drugs most likely to be found in the sample.

- There is always the possibility that a person suspected of drug impairment is actually suffering from an illness or injury requiring medical attention. If the suspect's sample is simply drawn for subsequent analysis, and they are not examined by someone qualified to recognize the presence -- or absence -- of symptoms of drug impairment, the medical problem may not be discovered until it is too late. Drug recognition experts take justifiable pride in the numerous instances where they have secured prompt medical care for persons initially suspected of drug abuse.

B. Evidence of Program Effectiveness

Proof of the effectiveness of the drug evaluation and classification program began to be accumulated from the very outset of the program: LAPD personnel demonstrated that they could conduct examinations that led directly to the conviction of drug impaired drivers and other drug law violators. And they demonstrated that they could train others to conduct these examinations successfully.

Scientific evidence that the examinations provide accurate indicators of drug categories began to be accumulated in the early 1980's. The National Highway Traffic Safety Administration sponsored a controlled, laboratory evaluation of the LAPD drug recognition procedures. The evaluation was conducted by researchers from Johns Hopkins University, assisted by senior drug recognition experts from LAPD. The researchers recruited volunteers who agreed to consume a variety of drugs, and other substances, under the researchers' supervision. During each experimental session, each volunteer swallowed a "pill" and smoked a "cigarette". Subsequently, each volunteer was examined, independently, by four LAPD DREs.

The "pills" given to volunteers contained <u>one</u> of the following:

- a placebo (i.e., no drug at all)
- secobarbital (a Central Nervous System Depressant)
- valium (i.e., diazepam -- another Central Nervous System Depressant)
- desoxyn (i.e., methamphetamine sulfate -- a Central Nervous System Stimulant)

The "cigarette" contained marijuana <u>or</u> a placebo (i.e., no drug) marijuana that either actually contained THC or from which the THC had been removed (i.e., a placebo).

No <u>combinations</u> of drug categories were administered to any volunteer on any session. That is, if a volunteer received a marijuana cigarette, then that volunteer received a placebo pill. If the volunteer received a "loaded" pill (i.e., with a drug), then his or her cigarette was a placebo. <u>Some</u> volunteers, on some sessions, received no drug at all: i.e., both the "pill" and the "cigarette" were placebos.

Two different dose levels of marijuana, diazepam and methamphetamine sulfate were used. That is, some of the marijuana cigarettes were "weak", some were "strong". Similarly, some of the diazepam and methamphetamine sulfate pills were "weak", some "strong". All of the secobarbital pills were "strong". Note, however, that even the "strong" dose levels were a good deal weaker than the drugs typically abused by impaired drivers encountered by police officers.

A most important condition of this laboratory experiment is that neither the volunteers nor the LAPD officers knew what drugs the volunteers had received. Also, the DRE's were not allowed to "compare notes" concerning their examinations of the suspects. Each DRE conducted his or her examinations in a separate room, and each had to reach an independent judgment as to what category (if any) of drug was present.

The DREs' performance in the laboratory experiment was excellent. They correctly classified 95% of the placebo only subjects as "not impaired". Conversely, they correctly classified 98.7% of the subjects who received "strong" drug doses as "impaired". And, they correctly identified the category of drugs for 91.7% of those "strong" dose subjects.

The DREs were less successful in identifying the volunteers who received "weak" drug doses. For example, they classified as "impaired" only about one-third of the subjects who received "weak" marijuana cigarettes, and only about one-sixth of those who received "weak" methamphetamine sulfate pills. However, it is unlikely that those "weak" dose subjects would have been stopped by officers, if they actually had been driving.

NHTSA followed up the laboratory experiment by sponsoring a Field Validation Study, in Los Angeles. Arrangements were made to have an independent laboratory analyze blood samples drawn from persons actually arrested on suspicion of drug impaired driving. Any suspect who was involved in a crash was excluded from the study, since injuries could have confounded the drug examination. Similarly, any suspect who refused to submit to the blood test was excluded, since there would have been no way to substantiate or refute the DRE's conclusions.

Ultimately, 173 suspected drug impaired drivers were included in the Field Validation Study. Each was examined by an LAPD DRE, and subsequently provided a blood sample for analysis by the independent laboratory.

A number of important facts emerged from this field validation study:

1. When a trained drug recognition expert concludes that a suspect is under the influence of drugs, chances are very good indeed that the suspect actually has drugs in his or her body. Only one of the 173 suspects was found to have no alcohol or other drug. Only ten others were found to have alcohol only. Thus, 93.6% of the suspects were confirmed to have drugs other than alcohol in their bodies. Of the 173 subjects, 125 or 72% had ingested 2 or more drugs, other than alcohol.

2. Polydrug use is very common. Only 21% of the suspects had consumed one drug other than alcohol. The study found 47% had two drugs in their system other than alcohol. And 25% had three or more drugs other than alcohol in their system. Among the more common combinations were the following:

    - Alcohol and PCP (23 suspects)
    - Alcohol and Cannabis (19 subjects)
    - Alcohol and PCP and Cannabis (18 subjects)
    - Cannabis and PCP (20 subjects)

3. The independent blood analyses confirmed the DREs' opinions in most cases. Overall, for more than nine out of ten suspects (92.5%), the blood test confirmed the presence of at least one drug category "predicted" by the DREs.

4. Confirmation rates varied among the categories, as follows:

Category	Percent Confirmed by Blood
PCP	92%
Narcotic Analgesics	85%
Cannabis	78%
Depressants (other than alcohol)	50%
Stimulants	33%

5. The relatively low confirmation rates for Depressants and Stimulants may have been due to limitations in the laboratory rather than because of misjudgments by the DREs. For example, the laboratory analyzed the blood only for the subcategories of Depressants known as the Barbiturates and the Benzodiazepines; there are many Depressant drugs that do not belong to those two groupings. In addition, the blood samples were not frozen prior to their shipment to the laboratory. Unfortunately, cocaine continues to metabolize in unfrozen blood samples. Therefore, it is possible that, in some samples obtained from Stimulant abusers, the cocaine simply disappeared before the samples were analyzed.

Since the initiation of the Drug Evaluation and Classification Program in Phoenix late in 1987, the Arizona Department of Public Safety's Central Regional Crime Laboratory has maintained records of the toxicologic analyses corresponding to DREs' opinions. Based on 526 cases reported by December, 1990 an overall laboratory confirmation rate of 86.5% had been achieved.

Numerous other states have conducted comparisons of laboratory analysis and DRE opinions, with the correlation rates generally exceeding 80%.

The overall conclusion of both the Laboratory and Field Studies is that the Drug Evaluation and Classification Program is a worthwhile tool for enforcement of drug-impaired driving. The tool is not 100% accurate, especially in a climate of polydrug use. However, it will furnish reliable evidence of the link between a particular suspect and a particular category of drugs in much more than a majority of cases.

C. Case Law Review

The Drug Recognition Expert Program is receiving increasingly favorable attention in court. Courts in various states have ruled favorably on the DEC program. Some judges have held that the DRE examination procedures meet the Frye standard for admissibility of "new" scientific evidence, while others have ruled that the Frye standard need not apply. The Frye standard is set by the U.S. Supreme Court to govern the admissibility of "new" scientific evidence. In effect, these courts took judicial notice of the Drug Recognition Expert Program, so that it is no longer necessary -- within the jurisdictions of those specific courts -- to introduce expert scientific testimony to secure the admissibility of the results of a drug influence examination.

Some of the courts which have rendered decisions are (1) the Municipal Court of the City of Tucson, County of Pima, State of Arizona (acting in "State of Arizona vs. Dayton Johnson and Samuel Rodriguez, et al.", numbers 90056865 and 90035883). The court ruled that the Frye standard was met. This decision was appealed to the Arizona Supreme court which ruled that the Frye standard did not apply to the DEC Program. (2) the Municipal Court of Minneapolis, State of Minnesota (acting in State of Minnesota, City of Minneapolis vs. Larry Michael Klawitter, 518 N.W. 2nd 577), ruled that outside of nystagmus, the DEC Program is not subject to the Frye standard. (3) the County Court of Boulder, State of Colorado (State of Colorado vs. Daniel Hernandez, 92M181) also ruled that the proceedures utilized by DRE's are not new or novel and that the Frye standard did not apply. These decisions illustrate the acceptance the DEC Program is gaining in many courts across the nation.

One key element of the drug influence examination -- namely, horizontal gaze nystagmus -- has been found to meet the Frye standard by several State Supreme Courts. The first case that led to State-wide judicial notice of HGN is commonly known as "State vs. Blake" (718 P.2d 171; Arizona, 1986). See also "State vs, Superior Court of County of Cochise, 149 Ariz 269, 718 P.2d 171, 60 ALR 4th, 1103). In this landmark ruling, the Arizona Supreme Court also set standards governing the training of officers who would be qualified to testify about HGN. The court also explicitly ruled that HGN cannot be used to establish BrACquantitatively in the absence of a chemical test.

To Summarize:

The prevailing trend in court is to accept HGN as evidence of impairment, provided the proper scientific foundation is laid. However, courts consistently reject any attempt to derive a quantitative estimate of BrACfrom nystagmus. Keep in mind that neither nystagmus nor any other elements of the drug recognition examination are intended to substitute for chemical testing. It is true that there is an approximate, statistical relationship between BrACand angle of onset, but this approximate relationship is not sufficiently reliable to permit BrAC"prediction" in any individual case.

Arizona First to Accept HGN

State v. Blake

"Frye" Decisions Regarding Admissibility of Drug Recognition Expert Testimony

"Frye" refers to a United States Federal Court opinion dealing with the admissibility of scientific evidence. The court established that new or novel scientific evidence, or the novel application of scientific principles, must be shown to have met with general acceptance in the relevant scientific community before it can be admitted.

1990
State of Arizona v. Dayton Johnson and Samuel Rodriguez, et al. Defendants
Nos 90056865 & 90035883 (Unpublished Opinion).

The Municipal Court of the City of Tucson, County of Pima, State of Arizona

"Virtually all the witnesses agreed that the scientific procedures utilized by trained drug recognition experts are reliable and are generally accepted in the scientific community. The methodology in place, used by trained law enforcement personnel in the field, has been shown to produce reasonably reliable and uniform results that will contribute materially to the ascertainment of the truth."

On May 7, 1992, the Arizona Supreme Court heard oral arguments in a special proceeding regarding this case. The Justices uniformly rejected the application of "Frye" to the DRE procedures. The Chief Justice observed that the component examination procedures had been established for fifty years.

The prosecutors in this case were Tom Rankin (Tucson) and Cliff Vanell (Phoenix). Expert witnesses for the prosecution included: Sgt. Richard Studdard, LAPD, Marcelline Burns, Ph.D., Sgt. Thomas Page, LAPD, Zenon Zuk, M.D., and Eugene Adler, toxicologist.

1991
The people of the State of New York v. Mary Quinn, Defendant, Docket No. 3130122, District Court, Suffolk County, October 24, 1991, 580 N.Y.S. 2d 818, Misc.2d 139 (N.Y.D.C. 1991).

"The Court found the People's evidence to be persuasive. The protocol is relatively simple. Jurors should have no trouble understanding the testimony of the DRE witness."

"Further, nothing contained in the protocol is a new invention. It is rather a compilation of tried and true procedures utilized by medical science and the law enforcement community in similar contexts for many years."

"The Court believes that the protocol's underlying principles are not so hypertechnical nor the skills required so specialized as to require professional medical training."

"The Court holds that the people have successfully established that both the HGN test and the DRE protocol meet the standards enunciated by "Frye" and "Middleton."

The prosecutors in this case were Joe Lombardo and Richard Frankel (Suffolk County). Expert witnesses for the prosecution included: Richard Studdard, retired LAPD Sergeant, Marcelline Burns, Ph.D., Sergeant Thomas Page, LAPD, Technical Sgt. Douglas Paquette, New York State Police, Zenon Zuk, M.D., David Peed, O.D., and Edward Briglia, Ph.D.

1992
County Court, Boulder, Colorado
Case No. 92M181 (Unpublished Opinion)
People of the State of Colorado v. Daniel Hernandez

"The DRE methods are accepted within the scientific community because they have found to be reliable."

"The Court finds that the expert does have sufficient specialized knowledge to assist the jurors in better deciding whether the defendant drove his car when under the influence of a specific drug. The DRE testimony can be used at trial provided a sufficient foundation is laid." Overall, this court ruled that the procedures used by DRE's are not new or novel scientific techniques that must meet the "Frye" standard.

The prosecutor in this case was David Archeluta (Boulder County). Expert witnesses for the prosecution include: Sergeant Thomas Page, LAPD, Zenon Zuk, M.D., Marcelline Burns, Ph.D., Rick Abbott, M.D., and Laurel Farrell (chemist).

1993
State of Minnesota in Supreme Court, C6-93-2092, filed June 30, 1994. (Unpublished Opinion)
State of Minnesota, City of Minneapolis vs. Larry Michael Klawitter, 518 N.W.2d 577 (1994)

"Given proper foundation and subject to other qualifications, opinion testimony by experienced police officers trained in use of so-called drug recognition protocol is generally admissible in evidence in a trial of a defendant for driving while under the influence of a controlled substance."

The Court determined that the gaze nystagmus test satisfies the requirements of "Frye".

"We agree with the trial court that the officer should be allowed to give an opinion based on the officer's training and experience and his or her observations following the 12-step drug recognition protocol, as long as (a) there is sufficient foundation for the specific opinion expressed, (b) the state does not attempt to exaggerate the officer's credentials by referring to the officer as a "Drug Recognition Expert" or to unfairly suggest that the officer's opinion is entitled to greater weight than it deserves, and..." "We add only that it should be obvious that the mere fact that such opinion testimony by itself will be sufficient to support a guilty verdict."

The court also determined that, outside of nystagmus, the components of a DRE examination are not scientifically new and are not subject to the "Frye" test.

The trial court stated, "...there is nothing scientifically new, novel, or controversial about any component of the DRE protocol itself. The symptomatology matrix used by DRE's to reach their conclusions is not new and is generally accepted in the medical community as an accurate compilation of signs and symptoms or impairment by the various drug categories."

The prosecutor in this case was Karen Herland (City of Minneapolis). Expert witnesses for the prosecution included: Sergeant Thomas Page, LAPD, Dr. Marcelline Burns (psychologist), Dr. David Peed (optometrist), Dr. Zenon Zuk (medical doctor), Eugene Adler (criminalist), Dr. S.J. Jejurikar (Minnesota Bureau of Criminal Apprehension), and Robert Meyer (toxicologist).

1994
11th Judicial Circuit in and for Dade County, Florida
Case No. 256998,9-I (Unpublished Opinion)
State of Florida v. Frederick Williams
Judge Maxine Cohen Lando
Original filed January 19, 1995

"Given proper foundation and subject to other qualifications, opinion testimony by an experienced police officer trained in the use of the drug recognition protocol is generally admissible in evidence in a trial of a defendant charged with driving under the influence of a controlled or chemical substance. Furthermore, Horizontal Gaze Nystagmus (HGN) test results are generally admissible to establish (1) that the defendant was impaired; and/or (2) that the defendant was over the legal limit; and/or (3) the defendant's specific breath or blood alcohol level at the time he performed the test."

This court found that the "Frye" standard is inapplicable to the DRE Protocol because neither the protocol nor any of its subsets (including HGN, VGN, and Lack of Convergence) are "scientific".

Further, these tests are neither new nor novel. The Court also state that "Frye" is inapplicable to HGN, VGN, and LOC because none of them are new or novel. "None of these tests or the theories and procedures they encompass, are new, novel, or emerging scientific techniques. The medical and psychological professions have acknowledged the tests' underlying theories and procedures for decades."

The Court concluded:

"Drug recognition training is not designed to qualify police officers as scientists, but to train them as observers. The training is intended to refine and enhance the skill of acute observation...and to focus that power...in a particular situation."

This court followed the Klawitter (Minnesota) decision, that it requires the state to "lay a proper predicate before referring to a DRE as anything other than a DRE or Drug Recognition Evaluator or Examiner."

"The real issue is not the admissibility of the evidence, but the weight it should receive. That is a matter for the jury to decide."

The prosecutor in this case was Steve Talpins (Dade County). Expert witnesses for the prosecution in this case included: Marcelline Burns, Ph.D., Zenon Zuk, M.D., Robert Dobie, M.D., Sergeant Thomas Page, LAPD, and others.

STATE AND FEDERAL APPELLATE COURT CASES ON HORIZONTAL GAZE NYSTAGMUS

(November 12, 1996)

This paper summarizes the opinions of State and Federal courts that have considered the admissibility of the results of the Horizontal Gaze Nystagmus (HGN) test at a DWI trial. Most of the cases summarized are appellate court decisions. Ref: 60 ALR4th 1129.

Alabama. The court held that the admission of HGN test results at a DWI trial was "not harmless error" if a proper foundation for the test's results had not been made by the State. However, the court further stated that this holding did not necessarily mean that it would approve the admissibility of HGN results even if there was a "proper foundation". 574 So.2d at 859 The court felt that it had "not been presented with sufficient evidence concerning the test's reliability or acceptance by the scientific community to address that question." See *Ex parte State of Alabama,* 574 So.2d 859 (Ala. 1990)** and *Malone v. City of Silverhill,* 575 So.2d 106 (Ala. 1990)**. A law enforcement officer's testimony concerning his training in the use of the HGN test was not sufficient evidence of the scientific reliability of such test to warrant the admissibility of its results into evidence at a DWI trial. *Brunson v. State,* 580 So.2d 62 (Ala.Cr.App. 1991) (cert. den. by the Alabama Supreme Court), *Johnson v. State,* 591 So.2d 580 (Ala.Cr.App. 1991), and *Desselle v. State,* 596 So.2d 602 (Ala.Cr.App. 1991)

Alaska. The court of appeals held that the results of an HGN test could be used alone to determine if there is probable cause to make a DWI arrest where there was other evidence of intoxication (e.g., bloodshot eyes) even if the defendant passed four (4) other field sobriety tests. However, the court made it clear that HGN test results were not to be admitted into evidence at a DWI trial to "corroborate" a chemical test for intoxication. *State v. Grier,* 791 P.2d 627 (AlaskaApp. 1990)

Arizona. HGN test results may be admitted as evidence of driving under the influence. The court felt that HGN satisfied the *Frye** test. However, the court held that HGN test results cannot be used to prove a specific alcohol concentration. Statutory law requires that an alcohol concentration be determined by a chemical analysis of a defendant's blood, breath, or urine. The court also held that the HGN test results could be used to determine probable cause of DWI for arrest purposes. *State v. Superior Court,* 718 P.2d 171 (Ariz. 1986)**. In cases where there is no chemical test to determine an alcohol concentration for intoxication purposes, HGN test results can be admitted the same as other field sobriety tests to show a "neurological dysfunction, one cause of which could be alcohol ingestion." 799 P.2d 860 However, HGN test results cannot be used to establish an alcohol concentration.

The court, in a footnote, discusses the factual differences in this case and the *Ricke* case below decided by the court of appeals. *State ex. rel. Hamilton v. City Court of City of Mesa,* 799 P.2d 855 (Ariz. 1990)**. Also, if the defendant is not careful when cross examining the officer who administered the HGN test, they could "open the door" to the possible introduction of evidence by the State that relates HGN results to an alcohol concentration. *State v. Cook,* 834 P.2d 1267 (Ariz.App.Div. 2 1993) In an illegal per se case decided by the court of appeals, the court held that HGN test results could be admitted into evidence to corroborate chemical test evidence that a person was operating a motor vehicle with an alcohol concentration at or above 0.10. The State supreme court appears to have approved this holding in the *Mesa* case; see footnote 2 in 799 P.2d at 858. *State ex rel. McDougall v. Ricke,* 778 P.2d 1358 (Ariz. App. 1989) Note: An appellate court has held that it was error to admit the results of an HGN test in situations where the defendant was wearing hard contact lenses during the test. However, such error was considered harmless given other aspects of the case. *State v. Stevens,* 1994 Ariz.App. LEXIS 184, __P.2d__ (Ariz.App. 1994)

Arkansas. The results of an HGN test may be admitted for the purpose of proving intoxication. The court, however, has apparently indirectly held that HGN results cannot be used to establish a specific alcohol concentration. *Whitson v. State,* 863 S.W.2d 794 (Ark. 1993)** For a prior case by the Arkansas Court Appeals that reached similar conclusions, see *Middleton v. State,* 780 S.W.2d 581 (Ark. App. 1989)

California. The Court of Appeals ruled that the HGN test was generally accepted by the relevant scientific community and could be used by officers, in conjunction with other tests and observations, in reaching an opinion whether a defendant was intoxicated. The court ruled that the relevant scientific community is comprised of behavioral psychologists, highway safety experts, criminalists, and medical doctors concerned with the recognition of alcohol intoxication. *People v. Joehnk,* 35 Cal.App.4th 1488 (1995)

Georgia. The court considered the HGN a type of field sobriety test and allowed the results of such test to be introduced into evidence as would other such tests. *Manley v. State,* 424 S.E.2d 818 (Ga.App. 1992) In an earlier decision, the court felt that there may have been error in the admission of the results of an HGN tests at a DWI trial. The court reached this opinion based on the fact that the State introduced no proof that this test was accepted within the scientific community. However, the introduction of HGN results was considered "harmless error" do to the fact that there was other sufficient evidence upon which the court could have based a DWI conviction. *Foster v. State,* 420 S.E.2d 78 (Ga.App. 1992) For a similar case, see *Ross v. State,* 386 S.E.2d 721 (Ga. App. 1989).

Idaho. HGN test results are admissible into evidence at a DWI trial. However, such results cannot be used to determine an alcohol concentration. *State v. Garrett,* 811 P.2d 488 (Idaho 1991), and *State v. Gleason,* 844 P.2d 691 (Idaho 1992)

Illinois. The appellate courts in this State have reached contrary positions on whether HGN test results should be admitted into evidence at a DWI trial. Because the State did not provide a proper foundation to establish the scientific reliability of the HGN test, the results of such test could not be admitted into evidence. *People v. Vega,* 496 N.E.2d 501 (Ill. App. 4 Dist. 1986) (reaffirmed in *People v. Sides,* 556 N.E.2d 778 (Ill. App. 4 Dist. 1990)), and *People v. Smith,* 538 N.E.2d 1268 (Ill. App. 2 Dist. 1989). In another case the HGN test results could not be admitted at a DWI trial to establish an alcohol concentration. Statutory law provides that an alcohol concentration be determined by an analysis of bodily substances. *People v. Dakuras,* 527 N.E.2d 163 (Ill. App. 2 Dist. 1988). Note: In one case, HGN test results were admitted because the defendant did not object to such admissibility. *People v. Seymoure,* 511 N.E.2d 986 (Ill. App. 4 Dist. 1987). However, HGN tests can be used as a factor by law enforcement officers to establish probable cause to make a DWI arrest. *People v. Griffith,* 493 N.E.2d 413 (Ill. App. 5 Dist. 1986) and *People v. Furness,* 526 N.E.2d 947 (Ill. App. 5 Dist. 1988) Note: In *People v. Jebelian,* 561 N.E.2d 1079 (Ill.App. 3 Dist. 1990), the court raised the possibility that HGN test results were not evidence, but the court made no specific holding on this issue. Nevertheless, in another appellate court HGN test results were admitted into evidence at a DWI trial based on the reasoning that they represented observed "behavior" and, therefore, could be used without a scientific foundation to establish whether the defendant was under the influence of alcohol. However, such evidence could not be used to determine a specific alcohol concentra-tion. *People v. Buening,* 592 N.E.2d 1222 (Ill.App. 5 Dist. 1992) In another case, the decision of the *Buening* court was supported. However, the court also held that HGN test results "are not conclusive evidence of intoxication" but are only one of several factors which must be considered to determine if a person was under the influence of alcohol. *People v. Wiebler,* 640 N.E.2d 24 (Ill.App. 3 Dist. 1994)

Iowa. The results of an HGN test could be admitted into evidence at a DWI trial to prove the intoxication of a driver. Note: HGN test results, however, were not used to determine a specific alcohol concentration. The court considered the HGN test to be one of the standard field sobriety tests law enforcement officers administer to persons suspected of a DWI offense. The officer, in this case, was properly trained to administer the HGN test and other field sobriety. These tests that are especially designed to assist an officer's observations in determining if a person is intoxicated.

The court felt that the officer did not have to qualify as an expert witness because the observations of intoxication obtained from the HGN test results were objective in nature. Therefore, there was no need that an officer be specially qualified to be able to interpret such results. The Iowa court based its decision to a large degree on *State v. Negal,* 506 N.E.2d 285 (Ohio App. 1986). *State v. Murphy,* 451 N.W.2d 154 (Iowa 1990)**. Note: The *Murphy* case was indirectly affirmed in *State v. Edman,* 452 N.W.2d 169 (Iowa 1990)**.

Kansas. The court held that HGN test results could not be admitted into evidence at a DWI trial. The court felt that the HGN test was scientific in nature and that, as a result, it was not the same as other field sobriety tests. In order to be admissible, therefore, the HGN test will have to satisfy the *Frye** test. *State v. Witte,* 836 P.2d 1110 (Kan. 1992)**

Louisiana. The court held that the "HGN test meets the standards of admissibility in *Frye** and, a proper foundation, may be admitted as evidence of intoxication." 561 So.2d at 887 Note: The court did not directly address the issue of whether HGN test results could be admitted into evidence at a DWI trial to establish a specific BAC level. *State v. Armstrong,* 561 So.2d 883 (La.App. 2 Cir. 1990) (writ denied by the Louisiana Supreme Court, 568 So.2d 1077 (La. 1990)), and *State v. Breiting,* 623 So.2d 23, (La.App. 1 Cir. 1993)

Minnesota. Using the *Frye** standard, the results of an HGN test can be admitted into evidence at a trial of a person charged with driving while under the influence of drugs. The HGN test was part of the 12 step protocol used by law enforcement officers, who have been trained as Drug Recognition Experts, to determine if a person should be arrested for DWI drugs. *State v. Klawitter,* 518 N.W.2d 577 (Minn. 1994)**

Missouri. The results of an HGN test can be admitted into evidence as proof of intoxication. It is interesting to note that, even though the court held that the results of the test could not be admitted to establish a specific alcohol concentration, it, nevertheless, held that a law enforcement officer could testify as to their experience concerning how a person's performance on the HGN test compares with breathalyser test results that indicated an alcohol concentration of 0.10 or more. The court based its decision on the *Frye** rule. *State v. Hill,* 865 S.W.2d 702 (Mo.App. W.D. 1993).

Montana. HGN test results may be admitted into evidence at a DWI trial. The court did not follow the general acceptance rule for scientific evidence, the *Frye** test, in reaching the holding in this case. Using more "liberalized" rules of evidence, the court felt that all scientific evidence should be admitted unless it is "exaggerated popular opinion" and likely to be prejudicial. *State v. Clark,* 762 P.2d 853 (Mont. 1988)**.

Nebraska. It was error to admit the HGN test results into evidence at a DWI trial. The court felt that the State had not established the scientific reliability of the test via a proper foundation. Note: Nevertheless, the court held that such admission was not prejudicial to the defendant and upheld his DWI conviction. There was other evidence that indicated the defendant's guilt. *State v. Borchardt,* 395 N.W.2d 551 (Neb. 1986)**.

New York. In a DWI case related to driving while under the influence of drugs, the court held that HGN test results were admissible. The court felt that the HGN test met the *Frye** standard for admissibility. However, the case was overturned on legalistic issues, none of which were related to HGN. *People v. Quinn,* 580 N.Y.S.2d 818 (Dist.Ct. 1991)

North Dakota. The results of an HGN test can be admitted into evidence at a DWI trial provided it is a part of the standard field sobriety tests. *City of Fargo v. McLaughin,* 512 N.W.2d 700 (N.D. 1994)**

Ohio. The State's supreme court has held that the results of an HGN test could be used (1) to establish probable cause of a DWI arrest and (2) as evidence at a DWI trial to prove that a person was driving a motor vehicle while under the influence of alcohol. However, the court also held that the results of an HGN test could not be used to prove a specific alcohol concentration. *State v. Bresson,* 554 N.E.2d 1330 (Ohio 1990)**, *Columbus v. Anderson,* 600 N.E.2d 712 (OhioApp. 10 dist. 1991), and *State v. Scott,* 606 N.E.2d 1023 (OhioApp. 3 Dist. 1992). Note: In an earlier decision, the Ohio Court of Appeals held that the results of an HGN test could be admitted into evidence at a DWI trial. The court reasoned that the HGN test was just another "field sobriety test" and, as such, a police officer could testify as to their observations while conducting the test without the need for them to be qualified as an expert witness. *State v. Negal,* 506 N.E.2d 285 (Ohio App. 1986).

Oklahoma. The court felt that HGN test results could not be admitted into evidence because the HGN test had not met the *Frye** standard. *Yell v. State,* 856 P.2d 996 (Okl.Cr. 1993)**

Oregon. The Oregon Court of Appeals has held that the results of an HGN test to admitted into evidence. I.e., law enforcement officers may now testify as to the defendants' reactions to the test and what the test meant to the officers. *State v. O'Key,* 858 P.2d 904 (Or.App. 1993) This decision reversed a prior one by this court on the same subject. *State v. Reed,* 732 P.2d 66 (Or. App. 1987) Note: An HGN test is considered a type of field sobriety test. Such tests are considered searches under Oregon law. *State v. Nagel,* 880 P.2d 451 (Or. 1994)

Pennsylvania. HGN test results could not be admitted into evidence at a DWI trial. The court held that the State had failed to "establish an adequate foundation for the admission of the test results." *Com. v. Miller,* 532 A.2d 1186 (Pa.Super. 1987), *Com. v. Apollo,* 603 A.2d 1023 (Pa.Super. 1992), and *Com. v. Moore,* 635 A.2d 625 (Pa.Super. 1993)

South Carolina. The court felt that the HGN test was one of the field sobriety tests. The results of the HGN test could be admitted into evidence in conjunction with the evidence obtained from other field sobriety tests. *State v. Sullivan,* 426 S.E.2D 766 (S.C. 1993)**

Texas. HGN test results could be admitted into evidence at a DWI trial to prove intoxication. *Emerson v. State,* 880 S.W.2d 759 (Tex.Cr.App. 1994)**

Washington. In order to be admissible, HGN must be shown to meet generally accepted scientific principles. The court used the *Frye** standard. *State v. Cissne,* 865 P.2d 564 (Wa.App.Div. 3 1994)

West Virginia. The court felt that, if the HGN test is proven reliable, its results could be admitted into evidence to prove that a driver was under the influence. However, HGN test results could not be used as a measure of a person's alcohol concentration. Again, as in other States, HGN test results are not recognized in the statutes as a method for determining alcohol concentration. Note: In the specific case before the court, the State offered no evidence of the scientific reliability of the HGN test. *State v. Barker,* 366 S.E.2d 642 (W.Va. 1988)**.

Wisconsin. The court held that HGN test results could be admitted into evidence at a DWI trial. The Wisconsin court's reasoning was similar to that of the Ohio Court of Appeals in *State v. Negal,* 506 N.E.2d 285 (Ohio App. 1986). The court considered that HGN test results were "merely behavioral observations based upon the officer's training and experience. It required little more expertise than is acquired by anyone who observes unusual behavior in persons suspected of drinking intoxicants." The court disagreed with the defendant's argument that the HGN test involved scientific principles such that it was necessary for the witness to be a qualified professional. *Wisconsin v. Peters,* 419 N.W.2d 575 (unpublished limited precedent opinion) (Wis. App. Dist. 3 1987), & *State v. Keller,* 1995 Wisc. App. LEXIS 446 (Wis.App. 1990), HGN test results were used as evidence of probable cause of a drunk driving offense. However, in this published opinion, the scientific reliability of this test was not an issue before the court.

United States. HGN test results could be admitted into evidence at a DWI trial as part of the results of a series of tests performed on a driver to determine if they were under the influence of alcohol. There was no indication that the results of the HGN test were used to establish a specific alcohol concentration. Note: The driver, in this case, was charged with violating Federal regulations that prohibit a person from operating a motor vehicle on Federal park lands while under the influence of alcohol. *U.S. v. Van Griffin,* 874 F.2d 634 (9th Cir. 1989) Comment: Both the U.S. Supreme Court and the U.S. Court of Appeals for the Fourth circuit have mentioned in opinions that law enforcement officers have used the HGN test as a field sobriety test. These courts, however, made no determinations as to the reliability of the HGN test or to the admissibility of the test's results into evidence at a DWI trial. *Pennsylvania v. Muntiz,* 496 U.S. 582, 110 S.Ct. 638, 110 L.Ed.2d 528 (1990), and *U.S. v. Reid,* 929 F.2d 990 (4th Cir. 1991)

**Frye v. United States,* 293 F. 1013 (D.C. Ct. of App. 1923) In this case, the court held, that before a scientific principle could be admitted into evidence, it "must be sufficiently established to have gained general acceptance in the particular field in which it belongs." 293 F. at 1014 The U.S. Supreme Court has recently held that the *Frye* standard does not apply to the admission of scientific expert testimony in cases tried in Federal courts. Instead, the Court held that this standard has been superseded by Federal Rule of Evidence 702. *Daubert v. Merrell Dow Pharmaceuticals,* ____U.S.____, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993)
***Opinion of the State's highest court.

SCIENTIFIC PUBLICATIONS AND RESEARCH REPORTS ADDRESSING NYSTAGMUS

1. Anderson, Schweitz & Snyder, Field Evaluation of Behavioral Test Battery for DWI, U.S. Dept. of Transportation Rep. No. DOT-HS-806-475 (1983) (field evaluation of the field sobriety test battery (HGN, one-leg stand, and walk and turn) conducted by police officers from four jurisdictions indicated that the battery was approximately 80% effective in determining BAC above and below .10 percent).

2. Aschan, Different Types of Alcohol Nystagmus, 140 ACTA OTOLARYNGOL SUPP. 69 (Sweden 1958) ("From a medico-legal viewpoint, simultaneous recording of AGN (Alcohol Gaze Nystagmus) and PAN (positional alcoholic nystagmus) should be of value, since it will show in which phase the patient's blood alcohol curve is...").

3. Aschan & Bergstedt, Positional Alcoholic Nystagmus in Man Following Repeated Alcohol Doses, 80 ACTA OTOLARYNGOL SUPP. 330 (Sweden 1975) (abstract available on DIALOG, file 173: Embase 1975-79) (degree of intoxication influences both PAN I and PAN II).

4. Aschan, Bergstedt, Goldberg & Laurell, Positional Nystagmus in Man During and After Alcohol Intoxication, 17 Q.J. OF STUD. ON ALCOHOL, Sept. 1956, at 381. Study distinguishing two types of alcohol-induced nystagmus, PAN (positional alcoholic nystagmus) I and PAN II, found intensity of PAN I, with onset about one-half hour after alcohol ingestion, was proportional to amount of alcohol taken.

5. Baloh, Sharma, Moskowitz & Griffith, Effect of Alcohol and Marijuana on Eye Movements, 50 AVIAT. SPACE ENVIRON. MED., Jan 1979, at 18 (abstract available on DIALOG, file 153: Medline 1979-79) (smooth pursuit eye movement effects of alcohol overshadowed those of marijuana).

6. Barnes, The Effects of Ethyl Alcohol on Visual Pursuit and Suppression of the Vestibulo-Ocular Reflex, 406 ACTA OTOLARYNGOL SUPP. 161 (Sweden 1984) (ethyl alcohol disrupted visual pursuit eye movement by increasing number of nystagmic "catch-up saccades").

7. Burns & Moskowitz, Psychophysical Tests for DWI Arrest, U.S. Dept. of Transportation Rep. No. DOT-HS-802-424 (1977) (recommended the three-test battery developed by SCRI (one-leg stand, walk and turn, and HGN) to aid officers in discriminating BAC level).

8. Church & Williams, Dose- and Time-Dependent Effects of Ethanol, 54 ELECTROENCEPHALOGRAPHY & CLIN. NEUROPHYSIOL., Aug. 1982, at 161 (abstract available on DIALOG, file 11: Psychinfo 1967-85 or file 72: Embase 1982-85) (positional alcohol nystagmus increased with dose levels of ethanol).

9. Compton, Use of the Gaze Nystagmus Test to Screen Drivers at DWI Sobriety Checkpoints, U.S. Dept. of Transportation (1984) (field evaluation of HGN test administered to drivers through car window in approximately 40 seconds: "the nystagmus test scored identified 95% of the impaired drivers" at 2; 15% false positive for sober drivers, id.).

10. Fregly, Bergstedt & Graybiel, Relationships Between Blood Alcohol, Positional Alcohol Nystagmus and Postural Equilibrium, 28 Q.J. OF STUD. ON ALCOHOL, March 1967, at 11, 17 (declines from baseline performance levels correlated with peak PAN I responses and peak blood alcohol levels).

11. Goldberg, Effects and After-Effects of Alcohol, Tranquilizers and Fatigue on Ocular Phenomena, ALCOHOL AND ROAD TRAFFIC 123 (1963) (of different types of nystagmus, alcohol gaze nystagmus is the most easily observed).

12. Helzer, Detection DUIs Through the Use of Nystagmus, LAW AND ORDER, Oct. 1984, at 93 (nystagmus is "a powerful tool for officers to use at roadside to determine BAC of stopped drivers...(O)fficers can learn to estimate BACs to within an average of 0.02 percent of chemical test readings." Id. at 94).

13. L.R. Erwin, DEFENSE OF DRUNK DRIVING CASES (3d ed. 1985) ("A strong correlation exists between the BAC and the angle of onset of (gaze) nystagmus." Id. at 8.15A(3).

14. Lehti, The Effect of Blood Alcohol Concentration on the Onset of Gaze Nystagmus, 136 BLUTALKOHOL 414 (West Germany 1976) (abstract available on DIALOG, file 173: Embase 1975-79) (noted a statistically highly significant correlation between BAC and the angle of onset of nystagmus with respect to the midpoint of the field of vision).

15. Misoi, Hishida & Maeba, Diagnosis of Alcohol Intoxication by the Optokinetic Test, 30 Q.J. OF STUD. ON ALCOHOL 1 (March-June 1969) (optokinetic nystagmus, ocular adaptation to movement of object before eyes, can also be used to detect central nervous system impairment caused by alcohol. Optokinetic nystagmus is inhibited at BAC of only .051 percent and can be detected by optokinetic nystagmus test. Before dosage subjects could follow a speed of 90 degrees per second; after, less than 70 degrees per second).

16. Murphree, Price & Greenberg, Effect of Congeners in Alcohol Beverages on the Incidence of Nystagmus, 27 Q.J. OF STUD. ON ALCOHOL, June 1966, at 201 (positional nystagmus is a consistent, sensitive indicator of alcohol intoxication).

17. Nathan, Zare, Ferneau & Lowenstein, Effects of Congener Differences in Alcohol Beverages on the Behavior of Alcoholics, 5 Q.J. OF STUD. ON ALCOHOL SUPP., may 1970, at 87 (abstract available on DIALOG, file 11: Psychinfo 1967-85) (incidence of nystagmus and other nystagmoid movements increased with duration of drinking).

18. Norris, The Correlation of Angle of Onset of Nystagmus With Blood Alcohol Level: Report of a Field Trial, CALIF. ASS'N CRIMINALISTICS NEWSLETTER, June 1985, at 21 (The relationship between the ingestion of alcohol and the inset of various kinds of nystagmus "appears to be well documented." Id. "While nystagmus appears to be useful as a roadside sobriety test, at this time, its use to predict a person's blood alcohol level does not appear to be warranted." Id. at 22).

19. Nuotto, Palva & Seppala, Naloxone Ethanol Interaction in Experimental and Clinical Situations, 54 ACTA PHARMACOL. TOXICOL. 278 (1984) (abstract available on DIALOG, file 5: Biosis Previews 1981-86) (ethanol alone dose-dependently induced nystagmus).

20. Oosterveld, Meineri & Paolucci, Quantitative Effect of Linear Acceleration on Positional Alcohol Nystagmus, 45 AEROSPACE MEDICINE, July 1974, at 695 (G-loading brings about PAN even when subject has not ingested alcohol; however when subjects ingested alcohol, no PAN was found when subjects were in supine position, even with G-force at 3).

21. Penttila, Lehti & Lonnqvist, Nystagmus and Disturbances in Psychomotor Functions Induced by Psychotropic Drug Therapy, 1974 PSYCHIAT. FENN. 315 (abstract available on DIALOG, file 173: Embase 1975-79) (psychotropic drugs induce nystagmus).

22. Rashbass, The Relationship Between Saccadic and Smooth Tracking Eye Movements, 159 J. PHYSIOL. 326 (1961) (barbiturate drugs interfere with smooth tracking eye movement).

23. Savolainen, Riihimaki, Vaheri & Linnoila, Effects of Xylene and Alcohol on Vestibular and Visual Functions in Man, SCAND. J. WORK ENVIRON. HEALTH 94 (Sweden 1980) (abstract available on DIALOG, file 172: Embase 1980-81 on file 5: Biosis Previews 1981-86) (the effects of alcohol on vestibular functions (e.g., positional nystagmus) were dose-dependent).

24. Seelmeyer, Nystagmus, A Valid DUI Test, LAW AND ORDER, July 1985, at 29 (horizontal gaze nystagmus test is used in "at least one law enforcement agency in each of the 50 states" and is "a legitimate method of establishing probable cause." Id.).

25. Tharp, Burns & Moskowitz, Circadian Effects on Alcohol Gaze Nystagmus (paper presented at 20th annual meeting of Society for Psychophysiological Research), abstract in 18 PSYCHOPHYSIOLOGY, March 1981 (highly significant correlation between angle of onset of AGN and BAC).

26. Tharp, Burns & Moskowitz, Development and Field Test of Psychophysical Tests for DWI Arrests, U.S. Dept. of Transportation Rep. No. DOT-HS-805-864 (1981) (standardized procedures for administering and scoring the SCRI three-test battery; participating officers able to classify 81% of volunteers above or below .10).

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29. Zyo, Medico-legal and Psychiatric Studies on the Alcohol Intoxicated Offender, 30 JAPANESE J. OF LEGAL MED., No. 3, 1976, at 169 (abstract available on DIALOG, file 21: National Criminal Justice Reference Service 1972-85) (recommends use of nystagmus test to determine somatic and mental symptoms of alcohol intoxication as well as BAC).

SESSION IV

OVERVIEW OF DRUG RECOGNITION EXPERT PROCEDURES

SESSION IV OVERVIEW OF DRUG RECOGNITION EXPERT PROCEDURES

Upon successfully completing this session, the participants will be able to:

- Name the components of the drug evaluation and classification process.
- State the purposes of each component.
- Describe the activities performed during each component.
- Correctly answer the "Topics for Study" questions at the end of this session.

A. Components of the Drug Recognition Expert Procedure

The Drug Recognition Expert Procedure is a systematic, standardized method of examining a suspect to determine:

(1) Whether the suspect is impaired; and if so,

(2) Whether the impairment relates to drugs or a medical condition; and if drugs,

(3) The category or combination of categories of drugs that are the likely cause of the impairment.

It is a systematic process because it is based on a complete set of observable signs and symptoms that are known to be reliable indicators of drug impairment. A drug recognition expert never reaches a conclusion based on any one element of the examination, but instead on the totality of facts that emerge. These facts are obtained from careful observations of the suspect's:

- appearance
- behavior
- performance of psychophysical tests
- eyes
- vital signs
- any other evidence

The process is standardized in that it is conducted in exactly the same way, by every drug recognition expert, for every suspect. A drug recognition expert never leaves out any step in the examination, even if it is not expected to provide a positive indicator of the type of drugs that the expert may suspect. The expert also never modifies the examination by including some unproven "indicators" that he or she thinks may be helpful.

Standardization is very important, because it helps to:

- avoid errors of omission or commission
- promote professionalism among drug recognition experts
- secure acceptance in court

The Drug Recognition Expert Procedure can be broken down into twelve major components. The checklist on the next page lists the twelve components in the sequence in which they must be performed. Always follow the checklist when conducting an examination.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

DRUG EVALUATION AND CLASSIFICATION PROGRAM

DRUG INFLUENCE REPORT CHECKLIST

_____ 1. Breath alcohol test

_____ 2. Interview of arresting officer
(Note: Gloves must be worn from this point on.)

_____ 3. Preliminary examination and first pulse

_____ 4. Eye examinations

_____ 5. Divided attention tests:

_____Romberg balance

_____Walk and turn

_____One leg stand

_____Finger to nose

_____ 6. Vital signs and second pulse

_____ 7. Dark room examinations and ingestion examination

_____ 8. Check for muscle tone

_____ 9. Check for injection sites and third pulse

_____ 10. Interrogation, statements, and other observations

_____ 11. Opinion of evaluator

_____ 12. Toxicological examination

1. The Breath Alcohol Test, to determine the suspect's blood alcohol concentration (BrAC).

   By obtaining an accurate and immediate measurement of BrAC, the drug recognition expert can determine whether alcohol may be contributing to the suspect's observable impairment, and whether the concentration of alcohol is sufficient to be the sole cause of that impairment.

   It is always possible that a person suspected of being under the influence of drugs other than alcohol may actually have consumed only alcohol. However, it is also very common to find that a suspect has consumed alcohol and other drugs.

   .08 - Party is over !!

2. The Interview of the Arresting Officer, to take advantage of the things that he or she may have seen or heard during earlier contact with the suspect.

   Most arresting officers are not as knowledgeable about drugs as are drug recognition experts. The arresting officers may have uncovered some drug paraphernalia, or overheard the suspect using drug related "street" terms, without recognizing their significance. A few minutes spent in a careful discussion with the arresting officer can alert the drug recognition expert to the most promising areas of investigation to be explored with the suspect. → Some Manifestations May Close-over Time,

3. The Preliminary Examination, which is a structured series of questions, specific observations and simple tests that provides the first opportunity to examine the suspect closely and directly. **NOTE: to avoid infection, the drug recognition expert must wear gloves from this portion of the examination on.**

   One major purpose of the preliminary examination is to determine if the suspect may be suffering from an injury or some other condition not necessarily related to drugs. Another major purpose is to begin systematically assessing the suspect's appearance, behavior, etc. for signs of possible drug influence.

4. The Examinations of the Eyes, which include horizontal gaze nystagmus, vertical nystagmus and a check for lack of convergence.

   Nystagmus will be induced with certain categories of drugs. Nystagmus, an involuntary jerking that may occur as the eyes gaze to the side or as they are elevated. The presence of nystagmus, and the point at which it becomes observable, can shed light on the possible presence of those categories and the extent to which they may be affecting the suspect.

The inability of the eyes to converge toward the bridge of the nose also gives evidence of the possible presence of certain categories of drugs.

5. The Divided Attention Psychophysical Tests, which include the Romberg Balance; the Walk and Turn; One Leg Stand; and, the Finger to Nose.

   The suspect's performance of these tests produces articulable evidence of their psychophysical impairment. The specific errors of omission or commission may point toward the categories of drugs that are behind that impairment.

6. The Vital Signs Examinations, which include systematic checks of the suspect's blood pressure; pulse rate; and, temperature.

   Certain categories of drugs may elevate blood pressure, pulse rate and raise the body temperature. Other drugs would have precisely the opposite effects. Vital signs as well as physical observations thus provide much valuable evidence of the presence and influence of a variety of drug categories.

7. The Dark Room Examinations, which include systematic checks of the size of the pupils of the suspect's eyes; the reaction of the pupils to light; and, evidence of ingestion of drugs by nose or mouth.

   Certain categories of drugs affect the eyes, and especially the pupils, in predictable ways. By examining the eyes under carefully controlled lighting conditions, important evidence of those drug categories may be obtained.

8. Examination for Muscle Tone

   Certain categories of drugs will cause the muscles to become rigid. Some other categories may cause the muscles to become flaccid.

   Begin with the left arm, firmly grasp the upper arm and slowly moving down to determine whether the muscle tone is flaccid, normal or rigid.

9. Examination for Injection Sites, e.g., via hypodermic needles.

   Users of certain categories of drugs routinely or occasionally ingest their drugs via injection. Evidence of needle use (scars, "tracks", etc.) may be found on veins along the neck, arms, legs, etc.

10. Suspect's Statements and Other Observations.

    Based on the nine previous components of the drug examination, the drug recognition expert should have formed at least an articulable suspicion as to the category or categories of drugs that may be present. The expert then can proceed, in full conformance with the suspect's Constitutional rights, to attempt to interview the suspect concerning the drug or drugs involved.

11. Opinions of the Evaluator

    Based on all of the evidence and observations obtained during the preceding ten steps, the drug recognition expert should be able to reach an informed opinion concerning:

    - Whether the suspect is under the influence of a drug or drugs; and if so,

    - The category or combination of categories of drugs that is the probable cause of the suspect's impairment.

    These conclusions should be documented, along with a narrative capsule summary of the observed facts that led to the conclusions.

12. The Toxicological Examination, which is a chemical test or tests that can provide scientific, admissible evidence to substantiate the drug recognition expert's conclusions.

B. General Guidelines For Interviewing The Arresting Officer

In most cases, the people you examine on suspicion of drug impairment will not be people whom you arrested. Some other officer usually will have had the first contact with the suspect, and will have made the arrest. The charge or charges of arrest may vary widely, and may or may not involve a traffic related offense. In any event, the situation usually will be that the arresting officer (or someone else) recognizes that the suspect may be impaired, has some reason to believe that drugs other than alcohol may be contributing to the impairment, and summons you to conduct an examination of the suspect.

In a particular case, the arresting officer may happen to be quite knowledgeable about drugs and may have some very well informed suspicions as to what types of drugs the suspect may be using. In another case, the arresting officer may not have the slightest idea as to the kinds of drugs that may be involved. But in all cases there is the possibility that the arresting officer may have seen, or heard, or smelled or uncovered something that could be a significant clue of drug influence to a trained drug recognition expert. A few minutes spent in a careful, systematic interview of the arresting officer may supply the DRE with some very important insights as to the categories of drugs most likely to be found in the particular case at hand.

The key concept here is that the interview be systematic. The DRE shouldn't simply ask the arresting officer an open-ended question such as "What do we have here?" The arresting officer may not be sufficiently knowledgeable about drugs to recognize what is relevant, and what is not. Instead, the DRE should inquire in a logical sequence as to the suspect's behavior, statements and any physical evidence that may have been uncovered.

Inquiries concerning the suspect's behavior

(1) Was the suspect operating a vehicle?
(This may help to establish whether the implied consent law applies to this particular case, and also serve to identify whether potential traffic law violations may be relevant.)

(2) What vehicle/operator actions, maneuvers, etc. were observed?
(This may disclose evidence of impaired divided attention ability, relaxed inhibitions, etc.)

(3) Was there a collision?
(This can indicate whether the suspect may have suffered injuries that could confound the drug examination.)

(4) Was the suspect observed smoking, drinking or eating?
(All of these are common means of ingesting various drugs.)

(5) Was the suspect apparently inhaling any substance?
(Another common method of ingesting certain drugs.)

(6) How did the suspect respond to the arresting officer's command to stop?
(Actions during the stopping sequence may also disclose indicators of impairment.)

(7) Did the suspect attempt to conceal or throw away any items or materials?
(Such materials may have been drugs or drug-related paraphernalia.)

(8) What has been the suspect's attitude and demeanor during contact with the arresting officer, and have there been any changes?
(This information can be very relevant to the DRE's own safety, and can also shed light on the kinds of impairment the suspect may be experiencing.)

Inquiries concerning the suspect's statements

(9) Has the suspect complained of an illness or injury?
(An illness or injury could confound the drug examination, but could also suggest the effects of certain types of drugs.)

(10) Has the suspect used any "street terms" or slang associated with drugs or drug paraphernalia?
(Persons who use such terms are likely to be users of the drugs to which the terms relate.) NOTE: The arresting officer might not recognize "street terms" for what they are. It may be useful to follow up this question by asking the officer whether the suspect used any unusual or unfamiliar words or phrases. weed,

(11) How has the suspect responded to the arresting officer's questions?
(Impairment may be evident, in a variety of ways, from the manner of the suspect's responses.) Incomplete verbal response

(12) Does the suspect's speech appear to be slurred, slow, rapid, thick, mumbled, incoherent, etc?
(Various types of drugs may affect speech in various ways.)

(13) What, specifically, has the suspect said to the arresting officer?
(Numerous utterances may shed light on the kinds of drug-related effects that the suspect is experiencing.)
odors Time of Arrest

Inquiries Concerning Physical Evidence

(14) What items or materials were uncovered during the search of the suspect and/or vehicle?
(Even seemingly innocuous or familiar items may be recognized by trained DREs as being associated with possible drug use.)

(15) Were any smoking paraphernalia uncovered?
(Even routine smoking items, such as commercially produced cigarettes, pipes, etc. may disclose evidence of drugs.)

(16) Was there any injection related material?
(For example, such material could include needles, syringes, leather straps or rubber tubes used as tourniquets to help expose veins, bent spoons or bottle caps used in heating and dissolving drugs, etc.)

(17) Were there any balloons, plastic bags, small metal foil wrappings or any similar items?
(These kinds of items frequently are used as drug containers.)

(18) What was the suspect's blood alcohol concentration?
(If an attempt to administer a breath test has not yet been made, the drug recognition expert should do so now.)

C. Overview of The Preliminary Examination

The preliminary examination of the suspect consists of a series of questions; observations of the suspect's face, breath and speech; an initial series of checks of the suspect's eyes; and, the first of three checks of the suspect's pulse rate that will be made during the drug evaluation and classification process. As a safety precaution, officers should secure their weapons prior to beginning the examination.

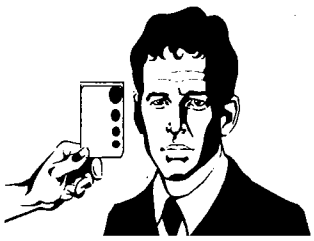
The questions are a set of formal inquiries about any injuries or medical problems from which the suspect may be suffering. Courts generally hold that these questions do not conflict with the suspect's Constitutional rights. However, you should be guided by your department's policy and procedure concerning the possible need to admonish the suspect of those rights prior to posing these questions. The questions include:

- Are you sick or injured?
- Do you have any physical defects?
- Are you diabetic or epileptic?
- Do you take insulin?
- Are you under a doctor's or dentist's care?
- Are you taking medication?

Answers to these questions may disclose circumstances that could impede or confound the subsequent steps in the drug examination. The suspect's answers, and the manner in which he or she answers, could also give evidence of the possible presence of certain types of drugs. If any affirmative responses are given, the DRE should ask appropriate follow up questions.

The observations of the suspect's face, breath and speech are straight forward. Make note, for example, if the face appears flushed or pale, and if the suspect appears to be perspiring. Any noteworthy odors of the breath should be recorded, such as the odor of alcoholic beverages; an odor of marijuana; or, a chemical odor, such as ether. If the suspect's speech is in any way distorted, this too should be recorded.

The initial checks of the suspect's eyes include some very important items. One of these is the visual check for equal pupil size. Look at the suspect's eyes to determine whether the pupils appear to be equal. If the pupils appear to be unequal, a further check will be necessary. This check is made by using an instrument called a pupillometer, which has a series of small dark circles of various diameters. The diameter is measured and indicated in millimeters (abbreviated "mm"). By holding the pupillometer alongside the suspect's eye, you can determine which circle is approximately the same size as the pupil. You must check both pupils.



A second important check of the eyes is an assessment of the eyes' tracking ability. You should hold a pencil, penlight or similar object about 12 - 15 inches in front of the suspect's face, and move it smoothly to the suspects extreme left, and smoothly back to the extreme right, instructing the suspect to follow the motion with his/her eyes. Always make at least two complete passes in front of the suspects eyes. If the two eyes do not exhibit the same tracking ability, this too may indicate a possible head injury or medical problem.

While you are assessing the suspect's tracking ability, you can also perform a preliminary assessment of whether horizontal gaze nystagmus is present in the suspect's eyes. In particular, if the nystagmus or "jerking" is observed, an initial estimation of the angle of onset can be made. The approximate angle of onset may help to determine whether the suspect has consumed some drug other than alcohol.

Research has shown that, when an individual consumes alcohol and no other drug, there is a statistical relationship, or correlation, between the angle of onset of nystagmus and the individual's blood alcohol concentration. This statistical relationship can be expressed by the formula

BA = 50 - ANGLE
or, ANGLE = 50 - BA

In this formula, "ANGLE" is the nystagmus onset angle, measured in degrees, and "BA" is the "blood alcohol", which is 100 times the BAC. For example, if BrAC= 0.10%, then "BA" = 10. This is known as Tharps Equation.

To illustrate how this formula is used, suppose you examine a suspect who is known to have a blood alcohol concentration of 0.05%. If alcohol is the only drug in that suspect's system, one would expect that the nystagmus onset angle would be 45 degrees.

(from the formula, ANGLE = 50 - 5 = 45.)

But, suppose the suspect also has ingested some other drug that also causes nystagmus. For example, the suspect may have taken some central nervous system depressant other than alcohol; or may have used PCP or certain inhalants. Then, the nystagmus onset angle may occur much earlier than would be expected from the alcohol alone. For instance, if the suspect with the 0.05% BrAC had also smoked some PCP, the onset of nystagmus might occur as early as 20 degrees.

Thus, if there is a significant disparity between the nystagmus onset angle, and what would be expected from the known BAC, the drug recognition expert should be alert to the possible presence of some other nystagmus causing drug.

The student is cautioned, however, not to attach too much importance to the nystagmus onset angle as an indicator of the presence of drugs other than alcohol. In the first place, not all drugs will induce nystagmus. Cannabis, for example, will not. Neither will narcotic analgesics, hallucinogens or central nervous system stimulants. Thus, a suspect could have consumed a small amount of alcohol, and smoked a large quantity of marijuana, and be very much impaired, but still exhibit a nystagmus onset angle that is consistent with a low BrAC. In the second place, the relationship between BrAC and onset angle is not really a precise, mathematical one, but rather is an approximate, statistical average. Human beings, and their eyes, do not all react to alcohol or other drugs in exactly the same way. The correlation between BrAC and onset angle is susceptible to a great degree of individual variation. Thus, the average person, at 0.10% BrAC, may exhibit a nystagmus onset angle of about 40 degrees. But individual humans, at the same BrAC, could easily exhibit onsets of 35 degrees, or 45, or even wider variations.

The nystagmus onset angle is one clue to consider in assessing whether drugs other than alcohol may be present. But it certainly is not the only clue to consider, and it is far from being the most important.

One final thing to be examined in the initial checks of the suspect's eyes is the condition of the eyelids. Many drugs will cause the eyelids to droop, as the user exhibits a sleepy appearance. A drooping of one eyelid, but not the other, possibly signifies an injury or other medical problem. The medical, or technical, term for droopy eyelids is Ptosis.

The final element in the preliminary examination is the first check of the suspect's pulse rate. Pulse rate is one of the vital signs that serve as very reliable indicators of the possible presence of certain categories of drugs. Pulse rate can also be affected by anxiety, and it is common for an arrestee to experience anxiety while being examined by a police officer. Pulse rate is measured near the beginning of the drug evaluation and classification examination, again during the middle, and finally near the end to allow the suspect's anxiety to "settle down" before the last measurement.

D. Overview of The Examinations of The Eyes

The eye examinations consist of three tests, namely horizontal gaze nystagmus, vertical nystagmus and lack of convergence.

Horizontal gaze nystagmus (HGN) which is the involuntary jerking of the eyes occuring as the eyes move toward the side, is the most complex of the three tests, although it is not difficult to administer or interpret. It consists of three separate checks, each of which is performed independently in each eye.

Check one: does the eyeball pursue, or track, smoothly?

Start with a stimulus (such as a pencil or penlight) held vertically in front of the suspect's face, and about 12 - 15 inches away from his or her nose. Keep the tip of the stimulus raised slightly higher than the suspect's eyes. Tell the suspect to keep the eyes focused on the tip of the stimulus, to hold the head steady, and to follow the movement of the stimulus with the eyes only.

Move the stimulus smoothly to the suspect's extreme left, then smoothly all the way to his/her extreme right, then smoothly back to the extreme left and then back to the extreme right. The stimulus should be moved at a speed that requires approximately 2 seconds to bring it from the center all the way to the side. Two complete passes should be made in front of the eye: that is, from the center to left the side, back to the right side, back to the left side again, back to the right side, and finally back to the center.

While the eyeball is moving, the examiner should observe it closely for signs of a "lack of smooth pursuit". If a person is sober (i.e., free of alcohol or other drugs that induce nystagmus), the eyeball should glide smoothly in the socket, in much the same fashion that a windshield wiper slides smoothly across the windshield when it is raining steadily. But if the person is under the influence of alcohol or other nystagmus inducing drugs, the eyeball usually will jerk noticeably as it moves, similar to a windshield wiper dragging across a dry windshield.

Check two: does the eyeball jerk distinctly when the eye is held at maximum deviation?

Again position the stimulus about 12 - 15 inches in front of the suspect's face, with the tip of the stimulus above eye level. Instruct the suspect to keep the head still and follow the stimulus with the eyes. Move the stimulus all the way to the left side, until the eyeball is turned to its maximum deviation. Hold the stimulus in that position for about four seconds, and carefully observe the eyeball. Then, repeat the process with the stimulus at the suspect's extreme right side. Persons under the influence of alcohol or other nystagmus inducing drugs usually will exhibit a distinct, pulsating, very pronounced jerking when the eyeball is at maximum deviation. In order to consider this clue as "present", you must observe a clear and unmistakable jerking. A slight, barely visible tremor does not constitute "distinct jerking".

Check three: what is the angle of onset of the jerking?

Again position the stimulus about 12 - 15 inches in front of the suspect, and slowly move the stimulus toward the left side. As you are moving the stimulus, observe the eyeball closely for the first sign of jerking. When you think that you first see the eyeball jerk, stop the stimulus and hold it steady. Verify that the eyeball is jerking: if it is not, start moving it toward the side again until you see the jerking start. Then, repeat the process for the suspect's right eye.

Once you have found the onset point, estimate the angle at which the eyeball is gazing. Remember that there is a statistical correlation that gives the approximate BrACvalue corresponding to a particular angle:

$$BA = 50 - Angle$$

Vertical Nystagmus is a very simple test to administer. Hold the stimulus horizontally in front of the suspect's eyes, and about 12 - 15 inches in front of the suspect's face. Instruct the suspect to focus on the center of the stimulus, and to keep the head steady. Raise the stimulus until the suspect's eyes are elevated as far as possible. Hold the eyes at that position for four seconds. If the eyes are observed to jerk noticeably, vertical nystagmus is "present".

It is also very easy to test for lack of convergence. Begin by holding the stimulus vertically in front of the subject's eyes, about 12 - 15 inches from the suspect's face. Instruct the suspect to focus on the tip and to keep the head still. Start moving the stimulus in a circle (either direction) in front of the suspect's eyes, and observe the eyes to verify that the suspect is tracking the stimulus. Then, slowly push the tip of the stimulus in toward the bridge of the nose, holding the stimulus on the bridge of the suspects nose for approximately one (1) second then remove the stimulus from the suspects face, and observe the eyes. If one eye drifts away to the side instead of converging toward the bridge of the nose, lack of convergence is "present". It should be noted that there are many individuals whose eyes are unable to converge normally.

E. Review of The Divided Attention Psychophysical Tests

Four divided attention tests are administered to suspects during a drug evaluation and classification examination.

Romberg Balance

Tell the suspect to stand straight with the heels together and the arms at the sides, and to maintain that position while you give the instructions. Ask the suspect if he or she understands.

Tell the suspect that he or she will have to tilt the head back slightly (demonstrate this) and close the eyes (do not close your own eyes while demonstrating: maintain your personal safety). Tell the suspect that he or she is to stand perfectly straight in that position, and estimate when 30 seconds have elapsed. When the suspect believes that 30 seconds are over, they must open their eyes, tilt their head forward and say stop.

Ask the suspect if they understand.

Tell the suspect to tilt their head back and close their eyes. Give the start command and start timing the suspect, making a note of how much time actually has elapsed when the suspect estimates that 30 seconds have passed. Also, make a note of the direction and degree of swaying that occurs when the suspect is performing the test.

Walk and Turn

Requires a straight line, long enough to allow a suspect to take 12-15 heel-to-toe steps.

Instruct the suspect to place their left foot on the line, then to place their right foot on the line with the heel of the right against the toes of the left. Demonstrate the proper stance to the suspect. Tell the suspect to keep their arms at their side and to remain standing in that position while you give the rest of the instructions. EMPHASIZE THAT THE SUSPECT IS NOT TO START WALKING UNTIL YOU SAY TO DO SO. Ask the suspect if they understand.

Give the following instructions, accompanied by clear demonstrations, as appropriate:

- Take nine heel-to-toe steps along the line. (Demonstrate several heel-to-toe steps).
- Keep your arms at your side at all times.
- Watch your feet while walking and count your steps out loud.
- When you have taken the 9th step, leave the front foot on the line, and turn around, using a series of small steps with the other foot. (Demonstrate a proper turn).
- Take nine heel-to-toe steps back along the line.
- Once you start walking, do not stop until the test is completed.

Ask the suspect if they understand.

During the instructions stage of the Walk and Turn test, carefully observe the suspect to determine if the following actions occur:

(1) Does the suspect break away from the heel-to-toe stance?

(2) Does the suspect start walking too soon?

Make a note of how often these occur.

During the walking stage of the test, carefully observe the suspect and note:

(3) Whether the suspect stops walking;

(4) Steps off the line;

(5) Fails to touch heel to toe (by more than 1/2 inch);

(6) Raises the arms from their side (more than 6 inches).

Make a note of how often these occur.

Also, watch the suspect closely to determine:

(7) The number of steps the suspect takes, first up and then down the line. (Make a note if the suspect takes more or fewer than nine steps in either direction).

(8) Whether the suspect turns improperly (i.e., in any fashion other than the way in which you explained and demonstrated the turn).

<u>One Leg Stand</u>

Tell the suspect to stand straight with their feet together, their arms at their side, and to maintain that position while you give the instructions. Ask the suspect if they understand.

Tell the suspect that they will have to raise their right foot up in front of them, and hold it approximately 6 inches off the ground with the toes pointed forward so the foot is parallel to the ground. (<u>Demonstrate</u> the proper one-leg stance.) Tell the suspect to keep their arms at their side and to stare at their foot. Tell the suspect to count out loud until told to stop. They should be instructed to count out loud as follows "one-thousand-one, one-thousand-two, one-thousand-three, and so on, until told to stop. (<u>Demonstrate</u> several seconds of counting.)

Remember to time the suspect for 30 seconds.

Ask the suspect if they understand.

Tell the suspect to perform the test. After the suspect has completed the test, allow them to relax for about 10 seconds. Prior to having the suspect to stand on the other foot and perform the test again, re-instruct the test.

While the suspect is performing the test, observe them carefully to determine if the following actions occur:

(1) Does the suspect raise their arms?

(2) Does the suspect sway?

(3) Does the suspect hop?

(4) Does the suspect put their foot down before the 30 seconds are up?

Make a note of how often each occurs.

Finger to Nose

Tell the suspect to stand straight with their feet together, their arms down at their sides, with their index fingers extended.

Tell the suspect that when you instruct them to, they are to touch the tip of one of their index fingers to the tip of their nose. They then need to bring their hand back down to their side.

Demonstrate how to properly touch the tip of the finger to the tip of the nose and how to tilt their head back. (For officer safety, do not close your eyes.)

Ask the suspect if they understand.

Tell the suspect to close their eyes and tilt their head back.

Tell the suspect to bring their hands up in the following sequence: left, right, left, right, right, left.

Make a note of exactly where the tips of the fingers contact the suspect's nose or face.

F. Overview of The Vital Signs Examinations

The three vital signs examined during the drug evaluation and classification process are pulse rate; blood pressure; and, body temperature. They are covered in some detail in Session VII of this training program. For the time being, some simple definitions are sufficient:

Pulse rate is the number of pulsations, or surges of blood, that occur in an artery in one minute. Each time the heart "beats" (or contracts) it sends a surge of blood through the arteries. These surges can easily be felt if you place your finger tips over an artery and apply slight pressure. All you have to do to measure pulse rate is to feel the surges while looking at a wristwatch, and count the number of surges that occur in thirty seconds, then multiply by two.

Blood pressure is the force that the circulating blood exerts on the walls of the arteries. A person's blood pressure constantly changes, from instant to instant. When the heart contracts, and sends the blood surging through the arteries, the blood pressure reaches its highest value, this is called the systolic pressure. As the heart expands, the surge of blood slows, and the pressure drops.

When the heart is fully expanded, the blood pressure falls to its lowest level, which is called the diastolic pressure.

Then, the heart starts to contract and the pressure rises again. The blood pressure continuously rises and falls, cycling between the systolic and diastolic values, as the heart beats.

Measurement of blood pressure requires a special instrument called a sphygmomanometer. A stethoscope is also needed.

Body temperature is measured by using a thermometer.

G. Overview of the Dark Room Examinations

The principal activity during the dark room examinations is the estimation of the size of the suspect's pupils. This is done using the pupillometer, in the same fashion as described during the preliminary examinations. However, in this case, pupil size must be estimated under four different lighting conditions, three of which will be controlled by a pen light.

Estimation of pupil size in room light

Have the subject gaze at a point several feet away in room light. This point should be behind the DRE and slightly above the subject's eye level. Care should be taken to ensure the subject is not staring at a light source. You must position the pupillometer along side the eye to ensure an accurate estimation. After checking both the left and right eye, turn off the lights and wait 90 seconds to allow your eyes and the suspect's eyes to adapt to the dark.

Estimation of pupil size under near-total darkness.

Cover the tip of the pen light completely with your thumb or index finger, so that only a red glow emerges through your skin and no white light shines out. Bring the pen light up toward the suspect's face until it is just possible to distinguish the pupil from the iris, or colored portion of the eye. Hold the pupillometer alongside the eye and identify the circle that is closest in size to the pupil. Always do this first for the left eye, and then for the right.

Estimation of pupil size under indirect light.

Hold the penlight near the side of the suspect's face, and point the light toward the suspect's nose. The light must shine across but not directly into the suspect's eye. Position the light so that a shadow of the eye is cast on the side of the subjects nose near the corner of the eye. Hold the pupillometer alongside the eye and identify the circle that is closest in size to the pupil. Always do this first for the left eye, and then for the right.

Estimation of pupil size under direct light.

Leave the tip of the pen light completely uncovered. Bring the pen light up along the side of the suspect's face, then shine the beam directly into the suspect's eye. Hold the pen light away from the face so that the beam just exactly fills the entire eye socket. The light should be left in the subject's eye for 15 seconds. Hold the pupillometer alongside the eye, and identify the circle that is closest in size to the pupil. Always do this first for the left eye, and then for the right.

While checking the pupil size under direct light, you must evaluate the pupil's reaction to light. If a person is not under the influence of any drug, his or her pupils should constrict within one second when the pen light's beam strikes the eye directly. But certain categories of drugs may cause the constriction to occur more slowly, or perhaps not to occur at all.

Two other activities conducted in the darkroom are the examination of the nasal area and the examination of the oral cavity. In both cases, you must look closely for signs of drug use, or even for traces of a drug or concealed quantities of drugs.

Tell the suspect to tilt their head back, and shine the pen light directly into the nostrils. Look for traces of drugs or other materials in the nasal passages, and look for redness, scarring or abrasions that might indicate repeated "snorting" of certain drugs.

Tell the suspect to open their mouth wide. Shine the pen light directly into the mouth. Shine the beam around the inside of the mouth to illuminate all areas. Look for residual quantities of drugs and for unusual coloring of the inside surfaces of the mouth (e.g., green or reddish coloring). Look near the gums for small balloons, bags, tissue or foil wrappings, or other small containers of drugs. Tell the suspect to elevate their tongue, and look under the tongue for debris, or other evidence of ingestion.

Two important things should be kept in mind about the dark room examinations. First, a second officer should always accompany you and the suspect into the dark room, simply as a safety precaution. Second, after entering the dark room, no examination should begin for 90 seconds, to allow your eyes, and the suspect's to adjust to the darkness.

H. Examination of Muscle Tone

Flaccid - Totally ([illegible]), muscle tone / like Flexed or locked [illegible] Normal

To begin the examination of the muscle tone start with the left arm, firmly grasping the upper arm and slowly moving down. The muscle will appear flaccid, normal or rigid to the touch. Then check the right arm in the same manner.

I. Examination for Injection Sites

Persons who frequently inject drugs often develop lengthy scars, called "tracks", from repeated injections into the same vein. Fresh injection sites often can be found at the end of a "track". Many times, a fresh injection site will not be easily visible to the naked eye. Therefore, a drug recognition expert should search for injection sites by <u>touch</u>, running the fingers along such places as the neck, forearms, wrists, back of hands, or other suspected areas of injection. When a possible injection site is located, a <u>ski light</u> can be used to provide a magnified and illuminated visual inspection.

Hypodermic needles are sized according to <u>gauge</u>. The gauge of a needle is a measurement of its inside diameter. The gauge number represents how many needles of that size would be needed to equal one inch. For example, a 24 gauge needle has an inside diameter of 1/24th of an inch; a 10 gauge needle has an inside diameter of 1/10th of an inch. Therefore, the higher gauge, the smaller the diameter of the needle.

J. Suspect Statements

The DRE should be aware that often times during the evaluation process, suspect's may make numerous spontaneous incriminating statements. These statements should be documented. DRE's should check to make sure that the suspect has been appropriately advised of their rights. DRE's should ask additional probing questions as appropriate.

"I just did this and I can't believe you [illegible] this"

K. Obtaining a Toxicological Sample

The process of obtaining toxicological samples will vary depending upon individual state implied consent statutes. The laws of your state will dictate what samples can be taken, i.e. urine, blood, saliva and/or breath. The containers for these samples will also vary depending on the type of test used and the laboratory that will do the analysis. A department or agency policy should delineate how each sample should be taken. You will need to become familiar with and follow your department's policies and procedures governing toxicological sample collection, handling, shipment, etc. Consideration should be given to witnessing the sample being obtained, chain of custody for the evidence, preservation and the return of the analysis by the laboratory.

L. A Brief Overview of Toxicology

1. Introduction

The material in this Section is intended to provide the basic understanding of chemical testing for drugs that a DRE needs to have to appreciate fully the role of toxicology in this program. As far as possible, the information has been kept non-technical. It will not be covered in depth in class, but you are expected to be familiar with what is given in this manual.

2. Some Key Concepts

DEFINITION: Toxicology is the study of poisons and their effects on living organisms. For DRE purposes, the "poisons" in question are drugs, and in some cases the metabolites of drugs. A DRE Toxicologist analyzes physical specimens such as blood and urine for drugs and drug metabolites.

A metabolite, for DRE purposes, is a chemical substance derived from a drug, and that is formed by the action of the body upon that drug. It is important to be aware that some metabolites are themselves psychoactive. That is to say, some metabolites cause impairment: Therefore, a metabolite may also be a drug. It is also important to know that it may be the metabolite, and not the original or "parent" drug that is detected in the laboratory. In some instances, finding a particular metabolite allows the chemist to conclude with certainty that a specific drug was ingested, even though the methods and equipment available to the lab can't detect that drug itself. Finding the metabolite is good, scientific evidence that the drug was there.

3. Limitations of Toxicology

Toxicology has some important limitations. One limitation is that, with the exception of alcohol, toxicology cannot produce "per se" proof of drug impairment. That is, the chemist can't analyze the blood or urine and come up with a number that "proves" the person was or wasn't impaired. For alcohol alone, the chemist can do that, or at least come very close to doing it.

But alcohol is a special drug. Chemically speaking, the alcohol molecule is very simple compared to the molecules of other drugs. Alcohol's metabolites don't impair. Scientists have had many opportunities to study alcohol's effects under carefully controlled experimental conditions. And, the scientific community has a pretty clear understanding of how alcohol works on the body and brain. These statements generally can't be made about other drugs. Drugs are metabolized in complex ways, and sometimes the metabolites are also drugs. Some drugs can be stored in the body's tissues, so that even after the drug has cleared from the blood, it's still in the body and brain, and still causing impairment. Apart from post-mortem studies of lethal levels, there haven't been routine opportunities to correlate drug concentrations with degrees of impairment. Ethical concerns limit our ability to study illegal drugs, especially at "street" dosages. And, it is difficult to replicate in the laboratory the drug combinations, methods of ingestion and drug purities characteristic of "street" use. Even if it were possible to study individual drug concentrations and their relationships to impairment in depth, the practice of poly-drug use and the myriad of different combinations seen on the street would make that information of little practical use. And finally, many laboratories simply don't perform quantitative analyses to determine the drug concentrations, but only determine qualitatively the presence of the drugs. The reasons for avoiding quantitative analysis include the facts that it is costly, time consuming, and may be beyond the capability of the equipment available to the lab. Also, if urine is the specimen preferred by or submitted to the lab, quantitative analysis is less important, because it doesn't lend itself to clear interpretation. In short, chemistry basically cannot supply the "magic number" of impairment for drugs.

Another limitation of toxicology is that it doesn't provide evidence of the time at which the drug was ingested. Therefore, the chemist won't be able to provide direct evidence of the suspect's condition at the time of arrest. In some instances, it is possible that a "positive" chemical test reflects drugs that the suspect took long before being arrested, and that were metabolized and no longer causing impairment prior to his or her arrest.

4. Toxicology's Roles in this Program

Exactly what are the roles that toxicology plays in this program? First and foremost, toxicology is **the twelfth step in the drug influence evaluation.**

A DRE doesn't complete the evaluation until they either obtain a specimen from the suspect, or formally document the fact that the suspect refused to submit to the toxicological test. And, it is important that the court be aware that toxicology is the final step of the evaluation. It follows the formation of the DRE's opinion; the opinion is not based on the results of the toxicological analysis. Similarly, the arrest, booking and charging of the suspect are not based on the toxicological analysis, and must be supported by other, solid evidence.

The DRE expects that toxicology will **support or corroborate the opinion** that they have formed. And, a toxicological analysis supports the opinion by confirming the presence of a particular drug that is consistent with the DRE's opinion. The concentration at which the drug is present shouldn't be an issue. That's because it isn't possible to relate concentration to "impairment" with any degree of reliability.

DREs also need to understand that sometimes the toxicological analysis will not confirm the DRE's opinion. And the DRE needs to be honest enough to admit that, when that happens, it may be because their opinion is incorrect. The drug influence evaluation isn't an exact science. Drugs affect different people in different ways. In this program, we "never say never", and we "always avoid saying always".

But sometimes, the toxicology doesn't corroborate a DRE's opinion even though the opinion is correct. The lab's instruments, personnel and analytic methods are not infallible. There are certain drugs that a particular laboratory simply can't detect at all. And, there are others that can't be "seen" unless they are present at fairly high concentrations.

To corroborate DREs' opinions, toxicology performs two kinds of analyses: **screening and confirmation.** Screening tests are easier, cheaper and faster than are confirmatory tests. But, confirmatory tests are more detailed and more specific than are screening tests. In very loose terms, we can say that a positive screening test means "it looks like this sort of drug is there". A positive confirmatory test means "this particular drug is definitely there".

Confirmatory tests employ methods different from those of the screening tests. The confirmatory test is designed to provide absolute proof of a drug's presence, or at least as close to absolute as science can come. And, confirmatory tests usually are required if the case goes to trial. DREs should be aware that, to cut down on costs, some labs do not conduct the confirmatory tests unless the case is going to go to trial. If this is the policy of your laboratory, you must provide the chemist with as much advanced notice of the trial date as possible, so he or she can perform the confirmatory analysis in a timely manner.

Suppose the screening test is positive, but the confirmatory test is not positive; what does that mean? Here again, DREs need to admit that it may mean that the drug isn't there. Some "screens" will react to substances other than psychoactive drugs. The screening tests are not absolutely indicative of drug presence; if they were, there would be no need for a confirmatory test.

But a failure to confirm a drug does not necessarily mean that the "screen" was inaccurate. Every analytic procedure has a "detection" threshold; that is the lowest quantity or concentration of the drug that the instrument can possibly detect. Above that is the "quantification" threshold; that is the lowest concentration that can be numerically determined by the instrument. Standard laboratory procedure calls for establishing a third level, called the "cut-off" level, which usually is set slightly **above** the "quantification" threshold. Typically, the laboratory's report for the confirmatory test will read "not detected" unless the drug is found at a concentration greater than or equal to the "cut-off" level. But in fact, the drug could be present, at a somewhat lower concentration.

Then why don't laboratories simply lower their "cut-off" levels, if they really want to support their DREs. The simple fact is that the laboratory needs to preserve its scientific validity. If it loses that, the testimony of its chemists will be worthless. There are definite limits to the accuracy of chemical equipment and procedures. If the cut-offs are set too low, "false positives" will result (i.e., reports of "drug found" when it isn't really there). The lab won't be able to defend its reports scientifically, so it won't be able to support the DREs at all. Still, it is important for DREs and State and agency DRE coordinators to consult with their toxicologists to try to reach agreement concerning optimum cut-offs, that do not compromise scientific integrity but at the same time provide adequate support to this program.

Fundamentally, then, toxicology's role in this program is **corroborative**. The observations of the arresting officer, and the observations, measurements and estimates of the DRE provide the best proof of the suspect's impairment. Toxicological analysis provides scientific corroboration that the suspect actually ingested a drug; in some cases, the analysis may also provide scientific support for the allegation that the suspect was impaired. And, toxicology also plays an important role in on-going studies to document the validity of this program, in monitoring the work of individual DREs and in assessing the progress students are making during their certification training.

5. Blood or Urine: Which is Better?

Blood and urine are the primary specimens available for analyses for drugs. If we have a choice, which should we pick?

The answer is, it depends. The laws of your State, the policies and procedures of your department, the particular condition of your suspect, the equipment and procedures available to your laboratory and possibly the drug categories you believe are causing the suspect's impairment will all have a bearing on the choice. **There is no single perfect or "best" specimen.** It is not possible to say that blood is better or that urine is better. Each has advantages and disadvantages.

Some advantages of blood:

- The presence of a drug in blood more reliably indicates recent use than does the presence of the drug in urine. Urine tests may produce "positive" results weeks after the drugs were used. This is much less likely to happen with blood tests. Thus a positive blood test is more contemporaneous with drug impairment.

- Some drugs are easier to detect in blood than in urine.

- The extraction of a blood specimen usually occurs under a greater degree of supervision. When providing a urine specimen, a suspect may have an opportunity to dilute or contaminate the specimen, or even substitute some other fluid for it.

- Quantitative analysis of urine specimens provides information of essentially no value. Quantitative analysis of drugs in blood **may** help to corroborate impairment.

Some advantages of urine:

- Urine is usually easier to obtain. Suspects often are more willing to supply urine, and medical personnel need not be present to extract it.

- Urine analysis is less expensive than blood analysis.

- Some drugs are easier to detect in urine than in blood.
- Drug concentrations usually are higher and thus easier to detect in urine than in blood.

- Some drugs clear very quickly from the blood. Thus, even a short delay between formation of the DRE's opinion and extraction of the blood sample may impede the laboratory's ability to corroborate the DRE. But drugs usually remain detectable in the urine for longer periods of time.

6. What DREs Can Do To Optimize Laboratory Corroboration

DREs can help the lab help them by following a few simple reporting procedures. First, make sure that you **tell the lab what drug categories you believe are present** when you send in the urine or blood specimen. Some labs want to get a copy of the complete DRE report along with the specimen; others don't. But all labs need to know the kinds of drugs that may be present, because that information can help the chemist determine if he or she needs to extend testing beyond the standard "menu" of screening procedures. And, make sure you **tell the lab what drugs the suspect admitted taking**, and also let them know **what drugs you found in the suspect's possession**.

Probably the most important advice for a DRE who wants maximum support from the lab is: **talk to the chemists**. Find out what kinds of specimens (blood, urine or whatever) they prefer to receive. This will vary from lab to lab, and possibly from case to case. Ask the chemists for instruction. Find out if they would like to receive a copy of your report along with the specimen. Make sure you understand what the laboratory report means. Establish a regular dialogue with the lab is essential for maintaining the support system this program demands.

Finally, DREs need to be aware of and sympathetic to the laboratory's limitations. DREs are not infallible, and neither are laboratories. All labs have "chemical blind spots", i.e., drugs for which no routine detection procedures or suitable instruments are available. Many labs, for example, find it very difficult to detect or confirm THC in blood specimens, or to find LSD in either urine or blood. In addition, most laboratories are not well equipped to screen for certain anti-psychotic drugs or for some of the narcotic analgesics. DREs need to know that these limitations are a fact of life. They should not be a cause for antagonism between the DRE and the lab.

Topics for Study

1. Give three important reasons for conducting drug evaluation and classification examinations in a standardized fashion.

2. What are the twelve major components of the drug recognition expert process?

3. How many times is pulse rate measured during the drug evaluation and classification examination?

4. Are the diameters of a pupillometer's dark circles indicated in centimeters, millimeters or micrometers?

5. What formula expresses the approximate statistical relationship between blood alcohol concentration and nystagmus onset angle?

6. Which of the seven categories of drugs ordinarily do not induce nystagmus?

7. How many heel-to-toe steps is the suspect instructed to take, in each direction, on the Walk and Turn test?

8. What period of time is the suspect required to estimate during the Romberg Balance test?

9. What is systolic pressure?

10. What is the name of the instrument used to measure blood pressure?

11. Name the four validated clues of the One Leg Stand test.

12. Name the eight validated clues of the Walk and Turn test.

13. Suppose you have two hypodermic needles, one is 14 gauge, the other is 20 gauge. Which needle has the smaller inside diameter?

SESSION V

EYE EXAMINATIONS: NYSTAGMUS, CONVERGENCE PUPIL SIZE AND REACTION TO LIGHT

SESSION V EYE EXAMINATIONS: NYSTAGMUS, CONVERGENCE PUPIL SIZE AND REACTION TO LIGHT

Upon successfully completing this session, the participants will be able to:

- State the purposes of various eye examinations in the drug evaluation and classification process.
- Describe the administrative procedures for the eye examinations.
- Describe the clues of interest in each eye examination.
- Conduct the eye examinations and note the cues that come to light.
- Prepare complete, clear and accurate records of the eye examinations.

In this session, you will have an opportunity to observe demonstra-tions of the various eye examinations of the drug evaluation and classification process. You will also have opportunities to practice administering those examinations.

The eye examinations include:

- Horizontal Gaze Nystagmus
- Vertical Nystagmus
- Lack of Convergence
- Pupil Size Estimation
- Pupil Reaction to Light

The following summarizes the results that generally can be expected when these eye examinations are administered to persons under the influence of the various categories of drugs.

	CNS Depressants	CNS Stimulants	Hallucinogens	PCP	Narcotic Analgesics	Inhalants	Cannabis
Horizontal Gaze Nystagmus	Present	None	None	Present	None	Present	None
Vertical Nystagmus	Present (High Dose)*	None	None	Present	None	Present (High Dose)*	None
Lack of Convergence	Present	None	None	Present	None	Present	Present
Pupil Size	Normal (1)	Dilated	Dilated	Normal	Constricted	Normal (3)	Dilated (4)
Reaction to Light	Slow	Slow	Normal (2)	Normal	Little or none visible	Slow	Normal

*High dose for that particular individual.

1. SOMA, Quaaludes usually dilate pupils.
2. Certain psychedelic amphetamines.
3. Normal but may be dilated.
4. Pupil size may be normal.

NOTE: The Normal Range of pupil size is 3.0 to 6.5 mm.

BEAR IN MIND that there is a great deal of difference among individual human beings and their individual reactions to drugs. The chart lists what we can expect to find when we examine suspects. But no one can guarantee that we will always find precisely these responses.

SOME KEY TECHNICAL TERMS REGARDING THE EYES

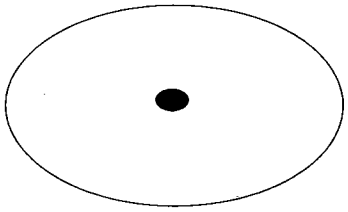
Hippus means a rhythmic pulsating of the pupils as they dilate and constrict within fixed limits.

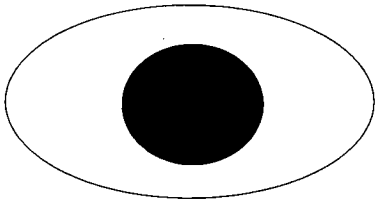
Rebound Dilation means the pupils pulsate in size growing steadily larger on the expansion pulsations.

Accommodation means the pupils of the eyes will automatically constrict as objects move closer to them.

Pupillary Light Reflex means the pupils of the eyes will constrict and dilate depending on changes in lighting.

Miosis means an abnormally small pupil, i.e., a pupil constricted below 3.0mm in diameter.





Mydriasis means an abnormally large or dilated pupil, i.e., a pupil more than 6.5mm in diameter.

Ptosis is the technical term for "droopy eyelids".

SESSION VI

PHYSIOLOGY AND DRUGS: AN OVERVIEW

SESSION VI PHYSIOLOGY AND DRUGS: AN OVERVIEW

Upon successfully completing this session, the participants will be able to:

- Explain in layman's terms the general concept of human physiology.
- Explain in layman's terms the purpose and functions of major systems in the body (nervous system, circulatory system, respiratory system, etc.).
- Explain in layman's terms how drugs work in the body.
- Explain in general terms how the drug evaluation is used to detect signs or symptoms indicative of drug impairment.
- Correctly answer the "topics for study" questions at the end of this Section.

The purpose of this session is to provide a brief overview of how the human body functions in a "normal" state and thus lay a foundation for comparison when drugs are introduced into the body. At best, students will acquire a general working knowledge and will by no means become a qualified medical specialist.

The Drug Recognition Expert can be compared to the operator of an evidential chemical test device...while it is beneficial to understand the general principles involved in the operation of the device, it is not necessary for each operator to be able to explain every detail of its operation. Rather, if the operator follows the operational instructions the device will produce accurate and reliable results. The same is true of the drug evaluation and classification procedure...if each DRE conducts the evaluation as instructed, and accurately records the test results and other observations, then the totality of information gathered during the evaluation will enable the DRE to predict the cause of impairment with a high degree of accuracy. The DRE's opinions of the cause of impairment will be limited to the seven categories of drugs, or some combination thereof, and/or a known or unknown medical or other condition that may produce similar signs or symptoms. It is not necessary to become a medical specialist or technician in human physiology. However, a general working knowledge of how the body functions is very helpful.

Physiology is the branch of biology dealing with the functions and vital processes of living organisms or their parts and organs.[1] In this session, we will focus on the chief functions of the organ systems. This approach should provide a general overview of the intricate workings of the body and its larger parts.

A. Body Systems

Our simple concept of human physiology focus on ten major systems of the body. We can help remember their names by using the somewhat gruesome, but easy to recall phrase "MURDERS, INC.". Each of those letters stands for the name of a body system:

[1] Webster's New World Dictionary, Second College Edition, 1980.

M is for the Muscular System
U is for the Urinary System
R (the 1st R) is for the Respiratory System
D is for the Digestive System
E is for the Endocrine System
R (the 2nd R) is for the Reproductive System
S is for the Skeletal System

I is for the Integumentary System
N is for the Nervous System
C is for the Circulatory System

The last two (Nervous and Circulatory) are the most important systems to a DRE, but several of the others also come at least indirectly into play when we conduct a drug influence evaluation. Each of the ten systems is briefly discussed below.

Muscular System: The body has three kinds of muscles: (1) the heart; (2) the smooth muscles (which control involuntary movements); and (3) the striated muscles (which control voluntary movements). The brain controls the operation of all these muscles through the nervous system.

Urinary System: The urinary apparatus consists of two kidneys connected by long tubes (ureters) to a storage device, the bladder, plus a third tube, the urethra, which leads from the bladder to the outside. Many of the waste products are filtered out of the blood as it passes through the kidneys and these wastes are then removed from the body in the urine.

Since drugs are removed from the blood in the kidneys and passed out of the body in the urine, the urinary system plays a key role in producing evidence of drug use.

Respiratory System: The chief organs of the respiratory system are the diaphragm and the lungs. The diaphragm is a muscular sheet that separates the thoracic cavity from the abdominal cavity, and draws fresh air into the lungs and forces used air out. The transfer of oxygen from the air to the blood and of carbon dioxide from the blood to the atmosphere occurs in the lungs. Oxygen must be supplied to all the body cells, and carbon dioxide must be removed from them in order for life to exist. The voice and, therefore all verbal communication is largely the responsibility of the respiratory system.

Digestive System: The digestive system consists chiefly of the tongue and teeth, esophagus (food tube), stomach, intestines, liver and pancreas. The digestive system is responsible for reducing large food particles to a size and chemical nature that can be absorbed (taken from the digestive system into the blood) and thereby utilized by the body cells for energy, growth and tissue repair.

The digestive system plays a key role in introducing drugs that are swallowed (pills, alcohol, etc.) into the blood. It also plays a role in determining onset of effects, depending upon the contents of the stomach and the type(s) of drug involved.

Endocrine System: The endocrine system consists of the thyroid, parathyroid, pituitary, and adrenal glands, plus portions of the pancreas, testes, and ovaries, in conjunction with certain other hormone producing tissues. The endocrine system produces powerful chemical substances, called hormones, that exert great influence on the growth and development of the individual, and aid the nervous system in the regulation of numerous body processes. The hormones released by the endocrine system travel through the bloodstream, and reach other tissues and organs that they help to control.

Reproductive System: The functions of the reproductive system fall into two categories: cell producing (cytogenic) and hormone producing (endocrinic). We are primarily concerned with hormone production since the hormones produced by the reproductive system aid the nervous system in its regulatory role.

Skeletal System: The skeletal system consists of bones, cartilage and the ligaments that hold bones together. The skeletal system gives the body support and protection, permits movement, provides for muscle attachment, forms blood cells, stores minerals, and removes certain poisons from the blood.

While the drug evaluation does not directly examine the skeletal system, we must be aware that injuries or other conditions can affect performance of psychomotor tests.

Integumentary System: The integumentary systems consists of the skin and its accessory structure, hair and nails. The skin is well supplied with blood vessels, nerves, sweat and oil glands. The chief functions of the skin include protection of the body, helping to maintain a constant body temperature and water content, excretion of wastes and perception of changes in the environment (sensation).

The skin can provide several clues during the drug evaluation. For example, pale or flushed appearance, skin temperature, presence or absence of sweat, lack of sensation, etc.

Nervous System: The nervous system consists of the brain, spinal cord, and nerves, each of which is made up of nerve cells (neurons) and supporting tissues. The nervous system keeps the body apprised of changes in the environment by enabling sight, hearing, smell, taste and through sensations of temperature, touch, pressure and pain. The nervous system also enables reasoning, memory and emotions.

It sends impulses that cause muscles to contract and glands to secrete, and it works with all body systems to integrate all physiological processes so that normal functions can be maintained. Much of the activity of the nervous system is reflex in character; that is, it is carried out below the level of consciousness.

Circulatory System: The circulatory system consists of the heart, blood vessels and blood. The heart pumps blood throughout the body, transporting food, water, hormones, antibodies, oxygen, carbon dioxide, and many other substances to or from the body cells as required. Body temperature regulation is a partial responsibility of the circulatory system, since warm blood is constantly moved throughout the body.

The circulatory system plays a key role in transporting drugs to the brain, where most of the drugs' effects are exerted. The circulatory system also transports the drugs to the liver and other organs, where the drugs are metabolized.

B. The Concept of Homeostasis

Homeostasis: The internal environment of the body consists of those fluids that bathe the body cells (intercellular or tissue fluid, blood and lymph). Many years ago it was discovered that although oxygen, foods, water and other substances are constantly leaving the body fluids to enter cells, and carbon dioxide and other wastes are constantly leaving cells and entering these fluids, the chemical composition of the fluids remains within remarkably narrow limits. This phenomenon was given the name "homeostasis".

By definition, homeostasis is the dynamic balance or steady state involving levels of salts, water, sugars and other materials in the body fluids. Homeostasis is a dynamic, rather than a static, or stationary equilibrium because the composition of body fluids is in a state of flux. Within limits, no matter what we eat, how much or how little we exercise, or what daily stresses and strains the body is subjected to, it retains homeostatic equilibrium of the body fluids. The rhythm of the heart and that of breathing, the constancy of body temperature, and the steady level of blood pressure under specific circumstances or conditions are all manifestations of homeostatic mechanisms at work within the body.

Every organ system plays some role in the maintenance of homeo-stasis. The circulatory system keeps the body fluids well mixed; the respiratory system constantly brings in oxygen and eliminates carbon dioxide; the digestive system takes in food and water and eliminates solid wastes; the skin and kidneys eliminate watery wastes; the skeletal system forms blood cells; the nervous system integrates the functioning of the other systems; and so on.

When drugs are introduced into the body the resultant interactions can cause the body to speed up, to slow down, or to become confused. During the drug evaluation we examine bodily functions and attempt to determine the cause of the impairment that is observed.

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C. A Simple View of the Heart and the Circulatory System

You have often heard that the heart is a pump, and that it works in pretty much the same way as an old fashioned, hand operated pump used to draw water from a well. That remains an accurate picture for our purposes.

The heart, of course, pumps **blood**. The heart has chambers that fill with blood. Then, the heart constricts strongly in response to signals received along the Autonomic Motor Nerves. That constriction sends the blood surging out of the heart. The blood surges out into a group of strong, elastic "tubes" called **arteries**. The arteries carry the blood away from the heart. The arteries divide into smaller and smaller branches, and finally into a network of tiny blood vessels called **capillaries**, which pervade the body's tissues and organs.

After the heart completes its strong contraction, it relaxes and begins to expand again. This expansion is also in response to signals received along Autonomic Motor Nerves. As the heart's chambers expand, blood pours into them. This returning blood is carried by another network of "tubes" called **veins**. The veins collect the blood seeping back from the tissues and organs, and carry it back to the heart.

One very special artery is connected to the right side of the heart. This is the Pulmonary Artery. This is the artery that the heart uses to send blood to the lungs. The blood that surges into the Pulmonary Artery has little or no oxygen in it. But when the blood reaches the lungs it picks up a fresh supply of oxygen. The newly oxygenated blood then returns to the left side of the heart, via the four Pulmonary Veins. On the next contraction of the heart, the newly oxygenated blood is sent surging into the network of arteries that connect to the left side of the heart; through those arteries the blood is carried to all other organs and tissues.

The blood deposits its oxygen in the organs and tissues and then seeps back from those organs and tissues through a network of veins that connect to the right side of the heart. On the next contraction, this oxygen-depleted blood is sent surging into the Pulmonary Artery and over to the lungs, and the process continues.

Every time the heart contracts, blood rich in oxygen rushes out of the left side of the heart, into a network of arteries. At the same time, blood depleted of oxygen surges out of the right side of the heart, through the one special artery called the Pulmonary Artery. Every time the heart expands, blood that has just received a fresh supply of oxygen from the lungs pours back into the left side of the heart via the Pulmonary Veins. At the same time, blood that has given up its oxygen to the tissues and organs pours back into the right side via the many other veins.

The special nature of the Pulmonary Artery is now clear: **it is the only artery that carries blood depleted of oxygen.** All other arteries connect to the left side of the heart, and carry blood rich in oxygen. By the same token, the Pulmonary Veins are special, too. They are the only veins that carry oxygenated blood.

The normal heart beats regularly, and keeps on beating, and beating, and beating...never resting for more than a small fraction of a second. The rate of heartbeat, or heart rate, is the number of beats per minute and is regulated by the Autonomic Motor Nerves. Sympathetic Nerve fibers insure that the heart beats fast enough to maintain circulation during any activity. Parasympathetic Nerve fibers send signals to slow the heart. This coordination of nerve signals insures that the heart beats neither too fast nor too slowly. And the coordination works, unless something...such as drugs...interferes with the signals.

In the DRE program, heart rate is measured by taking a subject's pulse. The normal range of pulse rate for the DRE program is 60-90 beats per minute.

The force exerted by the blood circulating in the arteries is called blood pressure. There are two components systolic pressure, and diastolic pressure. Systolic pressure occurs when the heart contracts and the maximum force is exerted on the arteries by the blood. Diastolic pressure occurs when the heart relaxes and the minimum force is exerted on the arteries by the blood. In the DRE program, the normal range for blood pressure is 120-140 systolic and 70-90 diastolic.

Additional information on pulse and blood pressure is available in Session VII - Vital Signs.

D. A Simplified Concept of the Nervous System

The Nervous System is one of the body's major control mechanisms. The other major control mechanism is the endocrine system. The endocrine system uses "chemical messengers", called hormones, to control the various tissues and organs. The Nervous System uses a combination of electrical and chemical "messengers" to transmit its signals.

Nerves are sometimes depicted as wires, similar to telephone or telegraph wires, that carry electric signals from the brain to the muscles and from the eyes, ears, etc. back to the brain. That is not a very accurate representation, and it is not suitable for our purposes.

A better model is one that imagines that a nerve consists of a series of broken wire segments, where the segments are separated by short spaces, or gaps. In this model, each segment of "wire" is a nerve cell, also known as a **neuron**. The space between two cells is called a **synapse**, or synaptic gap.

We can imagine a message running along a "wire segment" in much the same manner that electrical signals travel along telephone lines. When the message reaches the end of a segment, it must somehow "jump across the synapse" to reach the next piece of wire. Nerves use chemical messengers to jump the gap. When the signal reaches the end of the neuron, it triggers the release of a special chemical called a **neurotransmitter**. The neurotransmitter flows across the synapse and contacts the next neuron, where it is received. The reception of the chemical triggers an "electrical impulse" in that neuron, causing the signal to travel along the neuron until it reaches the next gap, where the release of the chemical is once again triggered. In this way, the signal moves along the entire nerve, in a series of electrical impulses and chemical transfers.

Neurons, or nerve cells, contain a number of different neurotransmitters, or chemical messengers. Each neurotransmitter carries a particular message.

The neuron has three main parts:

- The **cell body**.
- The **Axon** is the part of the neuron that **sends out** the neurotransmitter. The Axon is the "pitcher" of neurotransmitter.

- The **Dendrite** is the part that **receives** the neurotransmitter. The Dendrite is the "catcher" of neurotransmitter.

Types of Nerves

Some nerves carry messages **away from the brain**, for example, commands from the brain to the heart, telling it to beat faster or more slowly; or, commands from the brain to the eyes, telling them to dilate or constrict the pupils; or, from the brain to the muscles in the arm, telling them to raise or lower the hand; or, many other commands of this type. These nerves that carry messages away from the brain are called the **Motor Nerves**, or the Efferent Nerves. If something interferes with the messages that the brain sends out along the Motor Nerves, the brain's control over the body's organs and muscles will be disturbed. As a result, the heart might beat faster than it should, the pupils might constrict when they shouldn't, the arms and legs might not move exactly as the brain intends.

Other nerves carry messages **to the brain**, for example, signals from the eyes, the ears, the body's pain sensors, the inner ear, etc. The brain decodes the signals that come to it along these nerves, and forms "pictures" of the outside world and of the body's internal condition. These nerves that carry messages to the brain are called the **Sensory Nerves**, or the Afferent Nerves. If something interferes with the messages that the brain receives through the Sensory Nerves, the brain's perception of what is happening to the body and to the outside world will be distorted. As a result, the brain might "smell an odor" when it ought to hear a sound, or might "see an object" that doesn't really exist, or might feel no pain despite a severe injury.

This, very basically, is how drugs work: they interfere with the messages that the brain transmits along the Motor (Efferent) Nerves, and they interfere with the messages that the brain receives along the Sensory (Afferent) Nerves.

The Motor Nerves divide into two subsystems:

(1) One subsystem is made up of the **Voluntary Motor Nerves**; they carry messages from the brain to the striated muscles, i.e., the muscles that we consciously control. The Voluntary Motor nerves carry the commands that cause us to move our arms and legs, smile or frown, turn our heads, etc.

(2) The other subsystem is made up of the **Autonomic Motor Nerves**; they carry messages from the brain to the heart and to the smooth muscles. The Autonomic Motor Nerves carry the commands that cause our pupils to dilate, our lungs to inhale and exhale, our heartbeat to slow, etc. In other words, the Autonomic Motor Nerves send commands to the muscles and organs we do not consciously control.

The Autonomic Motor Nerves are further divided into two groups, the **Sympathetic Nerves** and the **Parasympathetic Nerves**. The Sympathetic Nerves command the body's automatic responses in reaction to fear, stress, excitement, etc. Through the Sympathetic Nerves, the brain sends "wake up calls" and "fire alarms" to the heart and the smooth muscles. The Sympathetic Nerves carry the messages that cause the pupils to dilate; the blood pressure and pulse rate to rise; the sweat glands to activate; the hair to stand on end; the blood vessels of the skin to constrict; etc. In short, the messages transmitted along the Sympathetic Nerves excite or stimulate the body. The Sympathetic Nerves act as the body's "gas pedal".

The Parasympathetic Nerves have exactly the opposite function. They carry messages that produce a relaxed state in the body, and that promote tranquil activities. The brain sends its "at ease" and "all clear" messages along the Parasympathetic Nerves. Those messages cause the pupils to constrict; heartbeat to slow; blood pressure to drop; peripheral blood vessels to dilate; digestion to proceed; etc. The Parasympathetic Nerves act as the body's "brake pedal".

Naturally, neurotransmitter, or chemical messengers, are involved in carrying signals along both the Sympathetic and Parasympathetic nerves. Some drugs mimic the action of certain neurotransmitter. When taken into the body, these drugs come into contact with dendrites (receptor ports) of nerves and cause messages to be transmitted along Sympathetic or Parasympathetic Nerves.

Drugs that mimic neurotransmitter that are associated with Sympathetic Nerves are called **sympathomimetic** drugs. They artificially cause the excitement and stimulation associated with the brain's natural "wake up calls". CNS Stimulants and Hallucinogens are considered to be sympathomimetic drugs;

Cannabis, PCP and the Inhalants also have sympathomimetic characteristics, to some degree.

Drugs that mimic neurotransmitter associated with the Parasympathetic Nerves are called **parasympathomimetic**. They induce the transmission of messages that cause lowered blood pressure, drowsiness, muscle relaxation, etc; Narcotic Analgesics and CNS Depressants are considered to be parasympathomimetic.

The primary neurotransmitter in the brain are norepinephrine (noradrenaline), acetylcholine, dopamine, serotonin, gama amino butric acid (GABA), endorphins and enkephalins.

E. How Drugs Work

In simple terms, drugs work by artificially introducing into the body chemicals that mimic the body's natural hormones and neuro-transmitters. Therapeutic doses of legitimate prescriptive drugs and over the counter medications are designed to produce carefully controlled simulations of natural hormones or neurotransmitters, to make up for a deficiency in the body's natural supply. A common example of this is the first-thing-in-the-morning cup of coffee that is a ritual for many people. When the alarm clock forces us to awake, against our will, our Parasympathetic Nerves are operating in high gear and we are flooded with hormones that induce sleep and relaxation. We use the stimulant caffeine to overcome the body's natural chemicals, so that we can get started on the day's work. An entirely different, but also common example, occurs when we find ourselves worried and anxious at the end of the day, because of problems on the job, at home or wherever. This is stress, and our brains react to stress by activating the Sympathetic Nerves: we're too "keyed up" to sleep. That is when many people reach for the glass of wine, or the Xanax or Valium tablet, to overcome the body's natural stimulation.

But we pay a price when we do these things. When we introduce these chemicals, we disrupt the body's natural balance. The body is going to react, because it must preserve homeostasis. And the body's reaction will try to alter its own supply of natural chemicals to accommodate the ones we have introduced.

One way in which the body may react to the presence of a drug is by producing hormones and neurotransmitters that tend to **counteract** the effects of the drug. For example, if a person snorts cocaine, their brain might react to the resulting stimulation by sending commands along the Parasympathetic Nerves to depress bodily functions, and by commanding the endocrine system to release hormones that also will produce depression. This can lead to an interesting situation: the drug may metabolize, i.e., react with oxygen and other chemicals in the body, and dissipate so that its effects no longer are present; but in the mean time, the brain has caused the body to be flooded with natural hormones and neurotransmitters designed to counteract the drug, and **they** may still be exerting their effects.

Cocaine, for example, metabolizes fairly quickly, so that its effects may disappear in a relatively short time. But the hormones and neurotransmitters that the brain dispatched to counteract the cocaine will probably still be around, and will still be trying to depress the body's systems. As a result, when the cocaine wears off, the user may look and act very much like someone who is under the influence of a CNS Depressant, just the opposite of how he or she looked and acted when under the influence of the cocaine.

We call this situation the **downside of a drug**. When a person is experiencing the **downside**, they are no longer under the active influence of the drug, because the drug has largely dissipated from the body. Instead, the person is exhibiting the effects of the natural chemicals that the body produced to try to offset the effects of the drug. DREs do not classify a subject as being "under the influence" of the downside of a drug.

It is not uncommon for a DRE to encounter someone on the downside of a drug. When the arresting officer apprehends a suspect, the effects of a particular drug might be very evident. But by the time the DRE is summoned and arrives on scene, the effects may have worn off. As a DRE, you are called upon to give your best professional opinion concerning what is affecting the suspect at the time of your examination. You must never attempt to infer or estimate what the suspect's state or nature of impairment may have been at some time prior to your contact with them.

There is another way in which the body may react to drugs, especially when the drug is routinely used over a period of time. Because the drug is artificially simulating the actions of certain hormones and neurotransmitters, the body may come to rely on the drug to supply those actions, and may simply cease producing those natural chemicals. We call this phenomenon **Negative Feedback**. It simply means that the brain accommodates the routine presence of a drug by turning off the supply of natural chemicals that correspond to the drug. Another way in which the body may compensate is by developing increased **tolerance** to the drug, meaning that the same dose of the drug will produce diminishing effects.

To express this another way, a steadily stronger dose of the drug will be needed to produce the same effects. Habitual users of drugs may develop tolerance to the drug and as a result they may exhibit relatively little evidence of impairment on the psychophysical test. Even tolerant drug users, when impaired, usually exhibit clinical evidence. Another effect is physical dependence, or **addiction to the drug**; because the natural chemicals are no longer available, the body needs the drug to provide the functions those natural chemicals used to perform. Evidence suggests that this Negative Feedback clearly occurs in users of heroin and cocaine, to cite just two examples. The bodies of cocaine and heroin users apparently cease producing the hormones and neurotransmitters needed for proper pain relief, stress reduction, mental stability and motivation. Very quickly, the user simply can't cope without the drug.

F. Medical Conditions Sometimes Confused With Drug Impairment

There are numerous medical conditions and injuries that may cause their victims to appear to be under the influence of alcohol or other drugs. Some of the more common of these are listed and discussed on the next page.

Head Trauma - A severe blow or bump to the head may injure the brain and create disorientation, confusion, lack of coordination, slowed responses, speech impairment and other gross indicators of alcohol or drug influence. Because the injury usually affects one side of the brain more than the other, disparities usually will be evident in the subject's eyes. Look at the pupils, and observe whether they are obviously different in size. Check the eyes' tracking ability, and see whether they are dissimilar, e.g., one eye moving smoothly while the other jerks noticeably. Check the eyelids to see if one droops while the other appears normal.

Stroke - A stroke will usually produce many of the same effects and indicators associated with head trauma. Stroke victims often will have pupils that are markedly different in size. One pupil may remain fixed and exhibit no visible reaction to light, while the other reacts normally.

Diabetes - A diabetic is most likely to be confused with a person impaired by alcohol or drugs when he or she has taken **too much insulin**, so that the blood sugar level becomes dangerously low. This condition is called **insulin shock**. A diabetic in insulin shock may appear very confused, may be non-responsive, sweat profusely and exhibit elevated pulse rate and blood pressure. If you suspect that you may be dealing with insulin shock, give the subject a glass of orange juice, a bite of candy or simply a spoonful of sugar; that should rapidly produce a noticeable improvement in his or her condition.

Conjunctivitis - This is an inflammation of the mucous membrane that lines the inner surface of the eyelids giving a red, bloodshot appearance of the conjunctiva of the eyes. At first glance, this may appear similar to the bloodshot conditions associated with impairment by alcohol or Cannabis. This condition may occur in one eye only.

Shock - Shock victims often will appear dazed, uncoordinated and non-responsive.

Multiple Sclerosis - Victims of Multiple Sclerosis (MS) and other degenerative muscular disorders may exhibit severe incoordination, gait ataxia, tremors, slurred or garbled speech and many of the other gross indicators of intoxication. However, they will usually appear alert.

Norepinephrine - "Fight" part of fight or flight

Topics for Study

1. What is a neurotransmitter? What is a hormone?

2. What is a dendrite? What is an axon? What is a synapse?

3. Do arteries carry blood toward the heart or away from the heart?

4. What is unique about the Pulmonary Artery?

5. What are the two types of nerves that make up the Autonomic Nervous Subsystem?

6. Is cocaine sympathomimetic or parasympathomimetic? What about heroin?

7. Explain the concept of the "downside of a drug". Explain the concept of "Negative Feedback".

8. What do we call the nerves that carry messages away from the brain? What do we call the nerves that carry messages toward the brain?

2 DeP (Beer & Xanax) → Additive FX

Stim + DeP – whiledeconstrdu

Combo Hallucinogen others – Small Amt of Bee – w/ Stimulants

Always Remember – – Check Totality of Facts.

SESSION VII

EXAMINATION OF VITAL SIGNS

SESSION VII EXAMINATION OF VITAL SIGNS

Upon successfully completing this session, the participants will be able to:

- Explain the purposes of the various vital signs examinations in the Drug Evaluation and Classification Process.
- Explain the administrative procedures for these examinations.
- Explain the cues obtained from these examinations.
- Document the examinations of vital signs accurately and completely.
- Correctly answer the "topics for study" questions at the end of this Section.

A. Concepts and Procedures for Measuring Pulse Rate

Some important definitions:

Pulse is the expansion and relaxation of an artery generated by the pumping action of the heart.

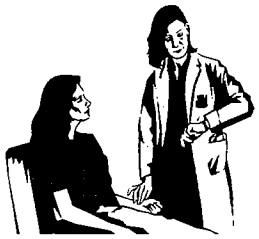
Pulse rate is the number of pulsations in an artery in one minute.

An artery is a strong, elastic blood vessel that carries blood from the heart to the body tissues.

A vein is a blood vessel that carries blood back to the heart from the body tissues.

When the heart contracts, it squeezes blood out of its chambers, and sends the blood surging into the arteries. The surging blood pushes against the walls of the arteries, causing them to expand. If you know where to locate an artery (for example, in the crease of your wrist, just below the base of the thumb) and you press your finger tips onto the skin just above the artery, you will feel the artery expand each time blood surges through it. If you keep your finger tips on the artery and count the pulses that occur in one minute, you will determine your pulse rate.

The Radial Artery provides a convenient pulse point. The Radial Artery can be located in or near the natural crease of the wrist, on the side of the wrist next to the thumb. To use the Radial Artery pulse point, have the subject hold his or her arm straight out, with the palm of the hand facing down. Place the tips of your index and middle fingers into the crease of the subject's wrist, near the base of the thumb, and exert a slight pressure. Allow the subject's hand to droop down from gravity; this will tighten the pressure on your finger tips and aid you to feel the pulse.



The Brachial Artery provides another useful pulse point. It can be located in the crook of the arm, halfway between the center of the arm and the side of the arm closest to the body.

The Carotid Artery can also provide pulse points. The Carotid Artery can be located in the neck, on either side of the Adam's apple.

Key points to keep in mind about measuring pulse rate:

- Don't use your thumb to feel someone's pulse. There is an artery in the thumb. If you apply pressure with the thumb, the "beat" you feel may be your own pulse, and not the subject's.

- If you use the Carotid Artery pulse point, don't apply pressure to both sides of the Adam's apple. Doing so can cut off the supply of blood to the brain.

- When measuring pulse rate, count the beats for 30 seconds, then multiply by two.

Some technical terms associated with pulse rate:

- Tachycardia: Abnormally rapid heart rate.
- Bradycardia: Abnormally slow heart rate.
- Arrhythmia: Abnormal heart rhythm.

B. Concepts And Procedures For Measuring Blood Pressure

All DREs need to be aware that many females have birth control implants in their upper left arm. The DRE should check for the implants, and if found, the blood pressure should be taken on the subject's right arm.

Some important definitions:

Blood pressure is the force that the circulating blood exerts on the walls of the arteries. The blood pressure changes from instant to instant, as the heart contracts and relaxes.

Systolic pressure is the maximum or highest blood pressure. The blood pressure reaches its systolic value when the heart contracts and sends the blood surging into the arteries.

Diastolic pressure is the minimum or lowest blood pressure. The blood pressure reaches its diastolic value when the heart is fully expanded.

A Sphygmomanometer is a device for measuring blood pressure. The major parts or components of a Sphygmomanometer include:

- the compression cuff, which can be wrapped securely around the arm and which contains a rubber bladder that can be inflated with air. There are different cuffs designed for children, adults and people with extra large arms; these cuffs have different sized bladders.

- the pressure bulb, which can be squeezed to inflate the rubber bladder with air.

- the pressure control valve, which controls the inflation or deflation of the rubber bladder. To inflate the bladder, the pressure control valve must be twisted all the way to the right (clockwise); then, the pressure bulb can be squeezed to pump air into the bladder. To deflate the bladder, the pressure control valve must be twisted to the left (counter-clockwise); the more the valve is twisted to the left, the faster the bladder will deflate.

- the manometer, or pressure gauge, which displays the air pressure in the bladder.

- tubes, connecting the pressure cuff to the manometer and to the pressure bulb.

Some technical terms associated with blood pressure:

- Hypertension: Abnormally high blood pressure.
- Hypotension: Abnormally low blood pressure.

Blood Pressure is measured in units of millimeters of mercury. Sometimes this is abbreviated as "mmHg", where "mm" represents "millimeters" and "Hg" is the chemical symbol for the element mercury (from "Hydrargyrum", the latin word for "mercury"). When the manometer or pressure gauge indicates that the pressure in the bladder is 120 mmHg, that means that the air in the bladder, if forced into a glass tube containing liquid mercury, would push the mercury up the tube to a height of 120 millimeters. Some Sphygmomanometers actually have pressure gauges that consist of glass tubes containing mercury, with a ruler alongside the tube marked off in millimeters. Usually, however, aneroid pressure gauges are used. ("Aneroid" means "without fluid".)

When you measure and record blood pressure, it is not necessary to use the symbols "mmHg". Simply record the numbers.

The principles involved in measuring blood pressure are easy to understand. When the pressure cuff is wrapped around the upper arm (e.g., around the bicep) and inflated with air, the air pressure exerts a force on the arm. When the pressure in the bladder gets high enough, the arteries in the arm will be squeezed shut, and no blood will flow through the arteries. In this respect, the pressure cuff works just like a tourniquet.

When the pressure control valve is twisted to the left, air starts to escape from the bladder and the pressure on the arm (and on the artery) starts to drop. However, as long as the air pressure on the artery remains higher than the blood pressure in the artery, the artery will remain squeezed shut and no blood will flow.

Consider this question: what will happen when the air pressure on the artery drops to the point where it just equals the blood pressure in the artery?

At that point, the heart will again be able to push the blood through the artery, so the flow of blood will resume.

But the blood pressure is constantly changing, from instant to instant. At one instant, the pressure will be at its maximum, or Systolic value. Then the blood pressure drops, and a very short time later it will reach its minimum or diastolic level. Then it climbs again, and repeats the cycle over and over.

When the air pressure in the bladder drops to the point where it equals the Systolic blood pressure, blood will be able to spurt through the artery each time the heart contracts. But an instant later, as the heart starts to expand and the blood pressure drops, the artery will squeeze shut again and the flow will stop.

If the air is allowed to continue to escape from the bladder, the air pressure eventually will fall to the point where it reaches the Diastolic level. At that point, the blood pressure in the artery always will be equal to or higher than the air pressure on the artery, so the artery will stay open and blood will flow steadily.

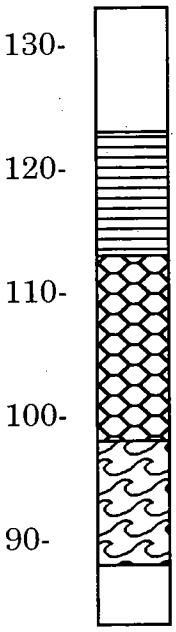
So the basic idea is simple:

> To measure blood pressure, start by pumping up the bladder until the artery is squeezed completely shut and no blood flows.
>
> Let the air pressure drop slowly until the blood just begins to spurt through the artery. When that happens, the pressure shown on the gauge will be equal to the Systolic pressure.
>
> Continue to let the air pressure drop until the blood finally flows steadily through the artery. The pressure showing on the gauge at that time will be the Diastolic pressure.

To determine when the blood starts to spurt, and when it starts to flow steadily, a stethoscope is needed.

The stethoscope should be applied to the skin, directly above the artery. For example, with the blood pressure cuff wrapped around the bicep, the stethoscope can be applied to the Brachial artery pulse point.

When no blood is flowing through the artery, you will hear nothing through the stethoscope. But when the air pressure in the cuff falls to the systolic level, you will hear the blood begin to spurt. The sound you will hear starts as a clear tapping. This is the first phase of what are called the Korotkoff Sounds, a distinct series of sounds that are heard as the air pressure in the cuff drops from the systolic to the diastolic level.



←***Phase 1 begins (SYSTOLIC)***
CLEAR, TAPPING SOUNDS

←***Phase 2 begins***
SOUNDS CHANGE TO MURMUR, TAKE ON A "SWISHING" QUALITY

←***Phase 3 begins***
SOUNDS DEVELOP A LOUD, KNOCKING QUALITY

←***Phase 4 begins***

As you continue to allow the air to escape from the cuff, the spurts of blood through the artery become steadily longer and the sounds change. They become fainter, and take on a swishing quality. They pass through a "knocking" phase, and then suddenly become muffled. Eventually, when the air pressure drops to the diastolic level, the blood flows steadily and all sound ceases.

Step-by-step procedures for measuring blood pressure

(1) Position the cuff on the bicep so that the tubes extend down the middle of the arm.

(2) Wrap the cuff snugly around the bicep.

(3) Clip the manometer to the subject's sleeve, or to some other convenient location, so that you can observe the gauge easily.

(4) Twist the pressure control valve all the way to the right.

(5) Put the stethoscope earpieces in your ears. Make sure the earpieces are turned forward.

(6) Apply the stethoscope to the Brachial Artery pulse point.

(7) Rapidly inflate the bladder to a level high enough to squeeze the artery shut. Usually, a pressure of 180 will be sufficient.

(8) Twist the pressure control valve slightly to the left to allow the air to escape from the bladder slowly (2 mmHg per second).

(9) Keep your eyes on the pressure gauge and listen for the Korotkoff Sounds.

a. Record the Systolic pressure when the first sound (clear, tapping) is heard.

b. Record the Diastolic pressure when the sounds cease.

If the DRE is unable to successfully obtain a blood pressure measurement the first time, they should wait a minimum of three minutes before attempting to obtain another measurement.

C. Concepts of Temperature Measurement

An electronic thermometer is used to orally measure temperature. The thermometer should always be covered with a clean disposable cover prior to taking the suspect's temperature.

The following summarizes the results that generally can be expected when the vital signs examinations are administered to persons under the influence of the various categories of drugs.

	CNS Depressants	CNS Stimulants	Halluci-nogens	PCP	Narcotic Analgesics	Inhalants	Cannabis
Pulse	Down (1)	Up	Up	Up	Down	Up	Up
Blood Pressure	Down	Up	Up	Up	Down	Up/Down (2)	Up
Temperature	Normal	Up	Up	Up	Down	Up/Down/ Normal	Normal

1. Quaaludes and Etoh may elevate.
2. Down with Anesthetic gases, up with volatile solvents and aerosols.

NOTE: "Normal" systolic blood pressure 120-140
"Normal" diastolic blood pressure 70-90
"Normal" pulse (adult male) 60-90
"Normal" temperature 98.6 plus or minus 1 degree, Fahrenheit

Topics for study

1. Where is the Radial Artery pulse point?
2. Why should you never attempt to feel a subject's pulse with your thumb?
3. Does an artery carry blood to the heart or from the heart?
4. What does the symbol "Hg" represent?
5. What is Diastolic pressure?
6. When do the Korotkoff Sounds begin?
7. Name and describe the major components of a Sphygmomanometer.
8. Which of the seven categories of drugs generally will cause blood pressure to be elevated?

130/96

140/90 120/80

SESSION VIII

DEMONSTRATIONS OF THE EVALUATION SEQUENCE

SESSION VIII DEMONSTRATIONS OF THE EVALUATION SEQUENCE

Upon successfully completing this session, the participants will be able to:

- Describe the sequence in which examinations and other activities are performed in the Drug Evaluation and Classification Process.

In this session, you will have an opportunity to observe demonstrations of the entire Drug Evaluation and Classification process. Your instructors will conduct some of these demonstrations "live", in the classroom. There will also be a video taped demonstration. The demonstrations will illustrate the standardized and systematic process used for the Drug Evaluation and Classification Program.

Your instructors will make the video tape available for reviewing, after normal class hours. You should make an effort to view the tape at least a second time before the completion of this course to ensure you are able to conduct an evaluation using the standardized and systematic process.

SESSION IX

CENTRAL NERVOUS SYSTEM DEPRESSANTS

	CNS Depr
HON	Yes
VC ↓	Yes
Lacrimation	Yes
Pupil size	Normal
Rx to light	slow
Pulse	~~normal~~ low
BP	~~normal~~ low
Temp	normal

Some Quaylude → Dilate Pupil

EtoH Quaalude → ↑ pulse

Metaqualone → Body temp & pulse

SESSION IX CENTRAL NERVOUS SYSTEM DEPRESSANTS

Upon successfully completing this session, the participants will be able to:

- Explain a brief history of the CNS Depressant category of drugs.
- Identify common drug names and terms associated with this category.
- Identify common methods of administration for this category.
- Describe the symptoms, observable signs and other effects associated with this category.
- Describe the typical time parameters, i.e., onset and duration of effects, associated with this category.
- State the clues that are likely to emerge when the Drug Evaluation and Classification process is conducted for a person under the influence of this category of drugs.
- Correctly answer the "topics for study" questions at the end of this Section.

A. Overview of CNS Depressants

Central Nervous System Depressants slow down the operations of the brain. They first affect those areas of the brain that control a person's conscious, voluntary actions. As dosage increases, depressants begin to affect the parts of the brain controlling the body's automatic, unconscious processes, such as heartbeat and respiration.

Alcohol is the model for the CNS Depressant category of drugs. Alcohol is the most familiar, and most widely abused, depressant. With some exceptions, all depressants affect people in much the same way as does alcohol.

Some major subcategories of CNS Depressants other than alcohol include:

- Barbiturates
  (Derivatives of Barbiturate Acid)

- Non-Barbiturates
  (Synthetic compounds with a variety of chemical structures)

- Anti-Anxiety Tranquilizers
  (Frequently prescribed and frequently abused)

- Anti-Depressants
  (It may seem to be a contradiction in terms to call a subcategory of Depressants the Anti-Depressants; but in this case, we simply mean that these drugs are prescribed to combat psychological depression. For that reason, the Anti-Depressants are sometimes known as the "mood elevators".)

- Anti-Psychotic Tranquilizers
  (Also known as the "major tranquilizers", to distinguish them from the Anti-Anxiety tranquilizers, or "Minor Tranquilizers".)

- Combinations of the other five subcategories.

Some examples of specific drugs included in each subcategory are given in the table on pages IX-2 and IX-3.

Most users of CNS Depressants ingest these drugs orally. However, although the practice is not common, some Barbiturate abusers inject their drugs intravenously. The injection paraphernalia used by Barbiturate abusers are similar to those used by Heroin addicts, although a wider gauge hypodermic needle is used, because the Barbiturate solution is thicker than the Heroin solution. The injection sites on the skin of a Barbiturate abuser exhibit large swellings, and may develop ulcerations resembling cigarette burns.

EXAMPLES OF CNS DEPRESSANTS

BARBITURATES	NON-BARBITURATES	ANTI-ANXIETY TRANQUILIZERS
Secobarbital Common trade name: "Seconal" Common street names: "reds"; "red devils"; "RDs"; "fender benders"; "F-40s"	Chloral Hydrate Common trade names: "Felsule"; "Noctec" Common street names: "Mickey Finn"; "Knock-out Drops"	Chlordiazepoxide Trade name: "Librium"
Pentobarbital Common trade name: "Nembutal" Common street names: "yellows"; "yellow jackets"	Glutethimide Trade name: "Doriden"	Diazepam Trade name: "Valium"
Amobarbital Common trade name: "Amytal" Common street names: "blues"; "blue heavens"	Methyprylon Trade name: "Noludar"	Clonazepam Trade name: Clonopin
Amosecobarbital A combination of amobarbital and secobarbital Common trade name: "Tuinal" Common street names: "rainbows"; "Christmas trees"	Methaqualone Trade names: "Parest"; "Quaalude"; "Sopor"; "Optimil"; "Mandrax"; Street name: "Ludes"	Flurazepam Trade name: "Dalmane"
Phenobarbital Many trade names Common street name: "pink ladies"	Ethchlorvynol Trade name: "Placidyl"	Alprazolam Trade name: "Xanax"
Diphenylhydantoin Sodium Trade name: "Dilantin"	Ethinamate Trade name: "Valmid"	Triazolam Trade name: "Halcion"
	Paraldehyde Trade names: "Paral"	Lorazepam Trade name: "Ativan"
	Diphenhydramine Hydrochloride Trade names: "Benadryl"; "Sominex"	Estazolam Trade name: "ProSom"
	Carisoprodl Trade name: "Soma"	Temazepam Trade name: "Restoril"
	Gama Hydroxy Butarate Street name GHB, Liquid X	Oxazepam Trade name: "Serax"
		Flunitrazepam Trade Name: "Rohypnopl" Street names: "Roofies" or "Roches"

EXAMPLES OF CNS DEPRESSANTS (CONTINUED)

ANTI-DEPRESSANTS	ANTI-PSYCHOTIC TRANQUILIZERS	COMBINATIONS
Phenelzine Sulfate Trade name: "Nardil"	Lithium Carbonate Lithium Citrate	Chlordiazepoxide and Amitriptyline Trade name: "Limbitrol"
Amitriptyline Hydrochloride Trade names: "Elavil"; "Endep"	Droperidol Trade names: "Inapsine"; "Innovar"	Perphenazine and Amipripttyline Hydrochloride Trade name: "Triavil"
Desipramine Hydrochloride Trade names: "Norpramin"; "Pertofrane"	Haloperidol Trade name: "Haldol" Chlorpromazine Trade name: "Thorazine"	Chlordiazepoxide Hydrochloride and Clidinium Bromide Trade name: "Librax"
Doxepin Hydrochloride Trade names: "Adapin"; "Sinequan"		
Fluoxetine Trade name: "Prozac"*		
Impramine Trade name: "Tofranil"		

B. Possible Effects of CNS Depressants

Once again, alcohol is the model here. Other depressants generally affect people in much the same way as does alcohol.

- o reduced social inhibitions
- o impaired ability to divide attention
- o slowed reflexes
- o impaired judgment and concentration
- o impaired vision and coordination
- o slurred, mumbled or incoherent speech
- o a wide variety of emotional effects, such as euphoria, depression, suicidal tendencies, laughing or crying for no apparent reason, etc.

In general, a person under the influence of a CNS Depressant will look and act as though they were drunk on alcohol.

C. The Onset and Duration of Depressants' Effects

Some CNS Depressants act very quickly, and begin to affect their users within seconds. Others act more slowly, sometimes taking one-half hour or more to begin to exert an influence. The quick acting depressants also tend to be relatively short acting: in some cases their effects wear off in a matter of minutes. The slow acting depressants, on the other hand, tend to produce longer lasting effects.

Depressants fall into four groups, based on how quickly they take effect and how long their effects last.

The Ultra Short Depressants take effect in a matter of seconds, but their effects dissipate in just a few minutes. They are used medically to provide a momentary sedation of a patient, for example to reduce a psychiatrist's patient's anxieties and inhibitions at the beginning of a counseling session. An example of an Ultra Short Depressant is Thiopental Sodium, sometimes call "truth serum". Ultra Short Depressants rarely are the drugs of choice for abusers, because their effects don't last long enough to satisfy most abusers.

The Short Depressants are more attractive to drug abusers. They generally take effect within 10-15 minutes, and their effects last approximately four hours. Medical applications of the Short Depressants include treatment of insomnia and sedation of patients prior to surgery. An example of a short depressant is Secobarbital.

Intermediate Depressants may require up to 30 minutes to take effect, but their effects typically last 6-8 hours. They are popular among drug abusers who desire a longer-lasting state of intoxication. The medical applications of Intermediate Depressants are similar to those of Short Depressants. Amobarbital is an example of an Intermediate Depressant.

The drug Amosecobarbital (trade name "Tuinal", i.e., two-in-all) straddles the border between short and intermediate depressants. It combines Amobarbital (an intermediate) with Secobarbital (a short). The result is a fairly fast acting drug with fairly prolonged effects.

The Long Depressants generally are not the preferred drugs of abusers. This is because they take too long to start producing effects (typically, about one hour). However, their effects usually last 8-14 hours. Long Depressants are used medically to control epilepsy and other conditions that can cause convulsions. Barbital is an example of a Long Depressant.

D. Signs and Symptoms of Depressant Overdose

Overdoses of CNS Depressants produce effects that are essentially identical to those of alcohol overdoses:

- the person becomes extremely drowsy and may pass out;
- the heartbeat slows;
- respiration becomes shallow;
- the skin may feel cold and clammy;
- death may result from respiratory failure.

Combinations of depressants can be especially risky. Unfortunately, many people routinely do combine depressants, usually in the form of alcohol and some other depressant. In some cases, the effects that result may be greater than the sum of the effects that the two drugs would produce independently.

E. Expected Results of the Evaluation

When a person under the influence of CNS Depressants is examined by a Drug Recognition Expert, the following results can be expected.

Pupil size generally will be normal; however, in the specific cases of Methaqualone ("ludes") or Soma, pupils usually will be dilated.

Horizontal Gaze Nystagmus usually will be present.

Vertical Nystagmus may be present, especially if the suspect has taken a large dose of the depressant.

Lack of Convergence will be present.

Pupil's reaction to light will be slow.

Pulse rate will be down; however, with Quaaludes and Etoh the pulse rate will be elevated.

Blood Pressure generally will be lowered.

Temperature will be normal.

Injection Sites usually will not be found; however, some Barbiturate abusers do inject. Their injection sites often will be swollen, and may appear ulcerated.

General indicators

drowsiness
droopy eyelids (ptosis)
thick, slurred speech
lack of coordination
slow, sluggish reactions
flaccid muscle tone

Topics for study

1. Name the six major subcategories of CNS Depressants.
2. Name the four groups of depressants based on onset and duration time factors.
3. To which subcategory of Depressants does Thorazine belong? To which subcategory does Chloral Hydrate belong? To which subcategory does Xanax belong?
4. Name a CNS Depressant that usually causes the pupils to dilate.
5. What is the generic name for the drug that has the trade name "Prozac"?
6. What is a trade name for the generic drug "Alprazolam"?
7. What is the name of the subcategory of CNS Depressants that is also known as the "Minor Tranquilizers"?

Drowsy

Drunk like Behavior

Disorientated

Droopy Eyelids

Fumbling

Gait ataxia

Unsteady affect

Thickly Slurred Speech

Sluggish

4 D F Cuts

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: MAYER, R.C.
BOOKING NO.: 002
DR#: IX-1

ARRESTEE'S NAME (LAST, FIRST, MI): COCKROFT, CAROLYN A.
AGE: 38 | SEX: F | RACE: W
ARRESTING OFFICER (NAME, SERIAL #, DIV.): HEDLUND, J. 0427/CSP

DATE EXAMINED/TIME/LOCATION: AUGUST 6, 1996 0045 8TH DIST
BREATH RESULTS: ☐ Refused Results 0.00 Instrument # 1234
CHEMICAL TEST: ☐ Both Tests Refused ■ Urine ☐ Blood

MIRANDA WARNING GIVEN: ■ Yes ☐ No
Given by: HEDLUND
What have you eaten today? When? CHICKEN SOUP 8 O'CLOCK
What have you been drinking? How much? Time of last drink? NOTHING N/A
Time now? When did you last sleep? How long? MIDNIGHT LAST NIGHT 6 HRS
Are you sick or injured? ☐ Yes ■ No
Are you diabetic or epileptic? ☐ Yes ■ No
Do you take insulin? ☐ Yes ■ No
Do you have any physical defects? ☐ Yes ■ No
Are you under the care of a doctor/dentist? ☐ Yes ■ No
Are you taking any medication or drugs? ☐ Yes ☐ No NONE OF YOUR BUSINESS

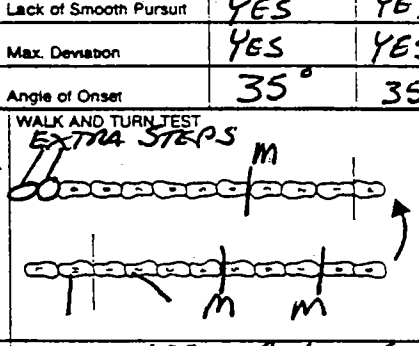
ATTITUDE: SULLEN, WITHDRAWN, NON-RESPONSIVE
COORDINATION: POOR STUMBLING STAGGERING
SPEECH: SLURRED
BREATH: NORMAL
FACE: NORMAL

CORRECTIVE LENS: ■ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☐ Normal ☐ Bloodshot ■ Watery
Blindness: ■ None ☐ L. Eye ☐ R. Eye
Tracking: ■ Equal ☐ Unequal
PUPIL SIZE: ■ Equal ☐ Unequal (explain)
HGN Present: ■ Yes ☐ No
Able to follow stimulus: ■ Yes ☐ No
Eyelids: ☐ Normal ■ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 60 / 0050	Lack of Smooth Pursuit	YES	YES
2. 58 / 0105	Max. Deviation	YES	YES
3. 60 / 0117	Angle of Onset	35°	35°

Vertical Nystagmus? ☐ Yes ■ No
Convergence: Right Eye → Left Eye ←

ONE LEG STAND



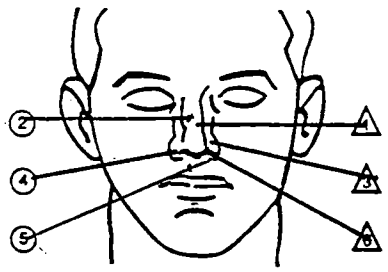
BALANCE EYES CLOSED: CIRCULAR SWAY

	1st Nine	2nd Nine
Cannot keep balance	✓	
Starts too soon	✓	
Stops Walking		
Misses Heal-Toe	✓✓	✓
Steps off Line	✓	
Raises Arms	✓✓	
Actual Steps Taken	9	11

L R
☐ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☐ ☐ Puts foot down.

INTERNAL CLOCK: 46 Estimated as 30 sec.
Describe Turn: LOST BALANCE STAGGERED TO THE RIGHT
Cannot do Test (explain): N/A
Type of Footwear: LOAFERS

○ Right △ Left
Draw lines to spots touched



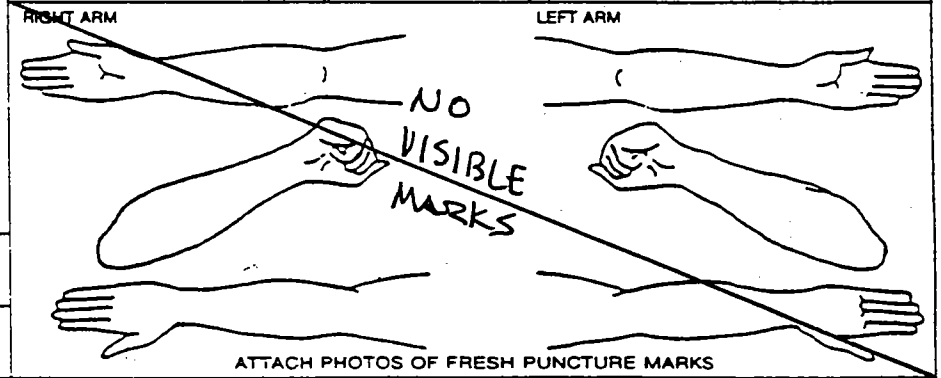
PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	4.0	6.0	4.0	3.5
Right Eye	4.0	6.0	4.0	3.5

NASAL AREA: CLEAR
ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ■ No
REBOUND DILATION: ☐ Yes ■ No
Reaction to Light: SLOW

BLOOD PRESSURE: 110 / 70
TEMP: 98.5 °
MUSCLE TONE: ☐ Near Normal ■ Flaccid ☐ Rigid
Comments:

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

What medicine or drug have you been using? How much? Time of use? Where were the drugs used? (Location)
I TOOK SOME MEDICINE MY BROTHER GAVE ME — I DON'T KNOW WHAT — I DON'T REMEMBER — BROTHERS HOUSE

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
AUG 6, 1996 0015 HRS	0035	0045	0125

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
1736	R. Mayer	321	CSP		KLIMA, J.

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Officer R. Mayer	ARRESTEE: Carolyn A. Cockroft

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Carolyn A. Cockroft took place in the Intoxilyzer Room, 8th District Hqtrs, PhoenixPD

2. WITNESS: Arresting Officer - Sgt. J. Hedlund #4532 Phoenix PD

3. BREATH TEST: Sgt. Hedlund administered Intoxilyzer breath test to Cockroft, the result was 0.00%

4. NOTIFICAATION / INTERVIEW of ARRESTING OFFICER: Writer was notified by Hedlund that he had arrested subject for DUI, and suspected that she was "high on something". Sgt. Hedlund further stated that the subject had been driving at 10 mph on the LaCienda Expressway, and appeared dazed and stuporous. She performed the SFSTs poorly but exhibited no odor of an alcoholic beverage.

5. INITIAL OBSERVATIONS: Writer observed subject in the Intoxilyzer Room, she was quiet, withdrawn and slow to respond to questions. When walking towards the Intoxilyzer she stumbled and nearly fell.

6. MEDICAL PROBLEMS: None observed or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject had approximately a 2" circular sway and estimated 46 seconds as 30 seconds. Walk and Turn: Subject lost balance during the instructions, started to soon, stepped off the line, missed heel to toe, raised her arms, staggered while turning and took (11) steps instead of (9). One Leg Stand: Subject swayed, raised her arms, hopped and put her foot down. Finger to Nose: Subject missed tip of his nose on each attempt.

8. CLINICAL INDICATORS: Subject exhibited HGN and lack of convergence. Pulse was below the normal range. Systolic blood pressure was below the normal range. Pupils reacted slowly to light.

9. SIGNS of INGESTION: None were evident

10. STATEMENTS: Subject admitted to taking "some medicine" her brother gave her. She stated that she did not know what the medicine was.

11. OPINION of EVALUATOR: In my opinion Carolyn Cockroft is under the influence of a CNS Depressant and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject provided a urine sample.

13. MISCELLANEOUS:

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: HALL, I
BOOKING NO: 001
DR: IX-2

ARRESTEE'S NAME (LAST, FIRST, MI): IMPELLIZZERI, MICHAEL T | AGE: 43 | SEX: M | RACE: W
ARRESTING OFFICER (NAME, SERIAL #, DIV.): LAIRD, C.D. #8825 HTD

DATE EXAMINED/TIME/LOCATION: NOV 5, 1996 / 2120 / VBPD
BREATH RESULTS: ☐ Refused — Results 0.05 — Instrument # 1234
CHEMICAL TEST: ☐ Urine ☒ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN: ☒ Yes ☐ No — Given by: LAIRD, C.D.
What have you eaten today? When? CHEESEBURGER LUNCHTIME
What have you been drinking? How much? A GLASS OF WINE
Time of last drink? 6 PM

Time now? 9 o'clock
When did you last sleep? How long? LAST NIGHT 7 HRS
Are you sick or injured? ☐ Yes ☒ No
Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No
Do you have any physical defects? ☐ Yes ☒ No
Are you under the care of a doctor/dentist? ☒ Yes ☐ No — FOR STRESS
Are you taking any medication or drugs? ☒ Yes ☐ No — VALIUM 4 TIMES A DAY

ATTITUDE: COOPERATIVE
COORDINATION: POOR STAGGERING
SPEECH: SLURRED THICK TONGUED
BREATH: SLIGHT ODOR OF ALCOHOLIC BEVERAGE
FACE: NORMAL

CORRECTIVE LENS: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☐ Normal ☒ Bloodshot ☐ Watery
Blindness: ☒ None ☐ L. Eye ☐ R. Eye
Tracking: ☒ Equal ☐ Unequal
PUPIL SIZE: ☒ Equal ☐ Unequal (explain)
HGN Present: ☒ Yes ☐ No
Able to follow stimulus: ☒ Yes ☐ No
Eyelids: ☐ Normal ☒ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 60 / 2130	Lack of Smooth Pursuit	YES	YES
2. 60 / 2145	Max. Deviation	YES	YES
3. 56 / 2157	Angle of Onset	30°	30°

Vertical Nystagmus? ☐ Yes ☒ No
Convergence: Right Eye / Left Eye

ONE LEG STAND

BALANCE EYES CLOSED: 3 / 3 / 0 / 0

WALK AND TURN TEST — "RUBBER LEGGED" WALK

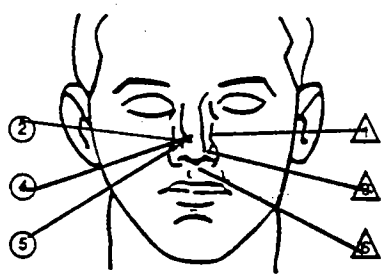
Cannot keep balance: V V
Starts too soon:

	1st Nine	2nd Nine
Stops Walking		
Misses Heel-Toe	V V	V
Steps off Line	V	V
Raises Arms	CONSTANT	CONSTANT
Actual Steps Taken	9	9

L R
☒ ☒ Sways while balancing.
☒ ☒ Uses arms to balance.
☐ ☐ Hopping.
☒ ☒ Puts foot down.

INTERNAL CLOCK: 50 Estimated as 30 sec.
Describe Turn: LOST BALANCE AND STAGGERED
Cannot do Test (explain): N/A
Type of Footwear: RUNNING SHOES

○ Right △ Left
Draw lines to spots touched

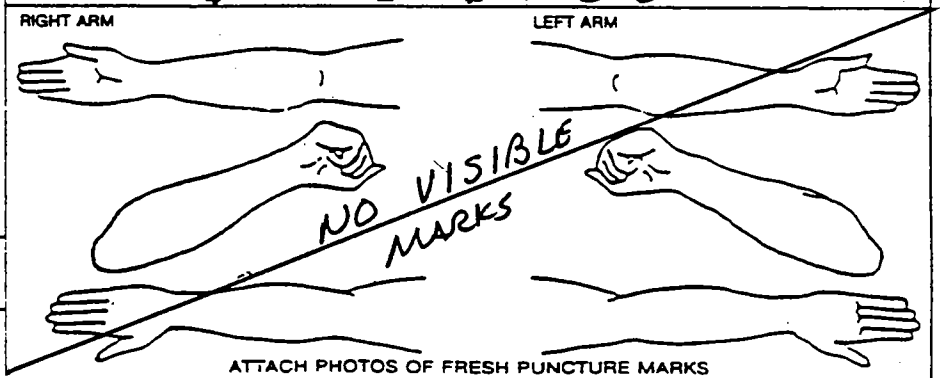


PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	4.5	6.5	5.5	3.5
Right Eye	4.5	6.5	5.5	3.5

NASAL AREA: CLEAR
ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ☒ No
REBOUND DILATION: ☐ Yes ☒ No
Reaction to Light: SLOW

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 106 / 66
TEMP: 98.6 °
MUSCLE TONE: ☒ Near Normal ☐ Flaccid ☐ Rigid
Comments:

What medicine or drug have you been using? How much? VALIUM - A COUPLE OF MY PILLS
Time of use? 6, O'CLOCK
Where were the drugs used? (Location) JOE'S TAVERN

DATE/TIME OF ARREST: NOV 5, 1996 2100
TIME DRE NOTIFIED: 2115
EVAL START TIME: 2120
TIME COMPLETED: 2205

CONTROL #: 1745
EXAMINING OFFICER: I. Hall
SERIAL NO: 8825
DIVISION: HTD
UNAVAILABLE DATES:
REVIEWED BY: STUDDARD, R.

DRUG INFLUENCE EVALUATION Page 2 of 2

LOG NO.	DRE: OfficerJohn Hall	ARRESTEE: Impellizzeri, Michael T

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Michael T. Impellizzeri, took place in the DRE room Virgina Beach PD Hdqtrs.

2. WITNESS: Arresting Officer - C.D. Laird # 8825, Virgina Beach PD. R.C. Studdard, IACP/TAP Representative

3. BREATH TEST: Writer observed Officer Laird administer GCI breath test to Impellizzeri, the result was 0.05%

4. NOTIFICAATION / INTERVIEW of ARRESTING OFFICER: Writer was conducting DRE certification training at VBPD Hqtr. Officer Laird stated that he and Mr. Studdard had come upon the subject slumped in the driver's seat of a vehicle stopped in W/B traffic lane of S.R. #175, near the intersection with Snowden River Pkwy. Officer Laird further stated subject appeared to be very drunk and performed poorly on the field sobriety tests.

5. INITIAL OBSERVATIONS: Writer observed subject seated in a slumped position in a chair next to the GCI. Subj. was mumbling, swaying, and was slow to respond to my initial questions.

6. MEDICAL PROBLEMS: None observed or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" font to back and estimated 50 seconds as 30 seconds. Walk and Turn: Subject lost balance twice during the instructions, stepped off the line, missed heel to toe, raised arms for balance, and staggered while turning. One Leg Stand: Subject swayed, raised arms, and put his foot down. Finger to Nose: Subject missed tip of his nose on each attempt.

8. CLINICAL INDICATORS: Subject exhibited HGN and lack of convergence. One of the pulse reading was below the normal range. Blood pressure was below the normal range.

9. SIGNS of INGESTION: There was an odor of alcoholic beverage on the subjects breath.

10. STATEMENTS: Subject admitted to drinking wine and taking some Valium pills. He stated that he takes Valium (4) times per day for stress.

11. OPINION of EVALUATOR: In my opinion Michael Impellizzer is under the influence of Alcohol and another CNS Depressant and unable to operate a vehicle safely

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS: Subject voluntarily produced a vial containing which he identified as containing his Valium pills. He further stated that he had filled the prescription for (50) pills two days earlier. There were only 22 pills remaining.

SESSION X

CENTRAL NERVOUS SYSTEM STIMULANTS

	Stanford
Hall	no
Vert	no
Lacrimation	no
Pupil	dilated
Rx to light	slow
Pulse	up
BP	up
Temp	up

SESSION X CENTRAL NERVOUS SYSTEM STIMULANTS

Upon successfully completing this session, the participants will be able to:

- Explain a brief history of the CNS Stimulant category of drugs.
- Identify common drug names and terms associated with this category.
- Identify common methods of administration for this category.
- Explain the symptoms, observable signs and other effects associated with this category.
- Explain the typical time parameters, i.e., on-set and duration of effects, associated with this category.
- Explain the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of this category of drugs.
- Correctly answer the "topics for study" questions at the end of this Section

A. Overview of Central Nervous System Stimulants

CNS stimulants speed up the operation of the brain and spinal cord. It is important to emphasize that "speed up" does not mean "improve" or "enhance". The stimulants definitely do not make the brain work better. Rather, they cause the brain and the rest of the nervous system to work harder, and often to make more mistakes.

The "speeding up" caused by stimulants results in significantly increased heartbeat, respiration and blood pressure, all of which can lead to physical harm to the abuser. In addition, the stimulant user experiences nervousness, irritability and an inability to concentrate or think clearly.

There are three major subcategories of CNS stimulants; cocaine, the amphetamines and others.

Cocaine derives from the coca plant, an evergreen native to South America. Cocaine is made from the plant's leaves. There is archaeological evidence that natives of Peru chewed coca leaves 5,000 years ago.

Amphetamines are synthetic (i.e., manufactured) drugs. They were first produced near the end of the 19th Century. Amphetamines have a number of legitimate medical applications, including control of narcolepsy; control of certain hyperactive behavioral disorders in children; relief or prevention of fatigue to allow persons to perform essential tasks of long duration; treatment of mild depression; control of appetite; prevention and treatment of surgical shock; treatment of Parkinson's Disease; maintenance of blood pressure during surgery; enhancement of the action of certain analgesic drugs; and, to antagonize the effects of depressant drugs. Numerous pharmaceutical companies manufacture amphetamines that are prescribed for these purposes. But these pharmaceutical amphetamines often are abused, as well.

Examples of common pharmaceutical amphetamines include:

DEXEDRINE
(dextroamphetamine sulfate)
Common street names: "Dexies"; "Hearts"

BENZEDRINE
(amphetamine sulfate)
Common street names: "Bennies"; "Whites"; "Cartwheels"

Sometimes mix CNS Depressants & Stimulus - Dexamyl/ Dextroamphetamine Sulfate & Amobarbital Eskatrol Dextroamphetamine Sulfate &

BIPHETAMINE
(combination of dextroamphetamine and amphetamine)
Common street name: "Black Beauty"

DESOXYN
(methamphetamine hydrochloride, also known desoxyephedrine)

Other relatively common pharmaceutical drugs are combinations of amphetamines and CNS depressants. One is DEXAMYL, which combines dextroamphetamine sulfate with amobarbital, a barbiturate.

Another is ESKATROL, a combination of dextroamphetamine sulfate with prochlorperazine, a non-barbiturate depressant. Persons using either of these drugs would be polydrug users, and would experience and exhibit effects of both depressants and stimulants. However, they might have no idea that they were using different categories of drugs, and might sincerely insist to the drug recognition expert that they had taken only one kind of pill.

Pharmaceutical amphetamines are not the only source of abused amphetamines. Large quantities also are illegally manufactured in clandestine laboratories. The two most common illicit amphetamines are methamphetamine and amphetamine sulfate. → pills

Methamphetamine is also known as methedrine. Its common street names include "speed"; "crank"; "crystal"; "meth"; and "water".

There are various ways in which CNS stimulant abusers ingest their drugs. Cocaine is commonly insufflated (snorted), smoked, injected and taken orally. Snorting may still be the most common method of ingesting cocaine, although smoking has become increasingly popular.

In order to be smoked, a pure form of cocaine is needed. Various chemical processes can be used to "free" the cocaine from other elements to which it is chemically bonded. The pure cocaine sometimes is called "freebase", and the practice of smoking it sometimes is called "freebasing".

One of the processes used to produce "freebase" produces the pure cocaine in the form of small, hard chunks. The chunks are often called "Crack" or "Rock Cocaine". The term "Crack" derives from the cracking sound the chunks produce when they are smoked.

Ritalin - Hyperactivity
Ritalin - ADD
Sylert - ADD

The pharmaceutical amphetamines are produced in the form of tablets, capsules and liquid elixirs, and so they are ingested orally. Illicitly manufactured amphetamine sulfate usually is produced in tablet form (the tablets sometimes are called "mini beans"), and ingested orally.

Methamphetamine abusers often inject the drug directly into a vein. Methamphetamine can also be snorted or taken orally.

There is a crystalline form of methamphetamine that is known by the street name "Ice". It is abused in much the same way as "Crack", i.e., small bits of "Ice" are placed in the bowl of a pipe and flame from a butane lighter is applied to vaporize the drug; the smoker then draws the vapor into the lungs. Another crystalline form of methamphetamine, known as "crystal meth", is also smoked.

Other non-cocaine and non-amphetamine stimulants include the prescriptive drugs Ritalin, Preludin and Cylert. Some Stimulants are legally manufactured and distributed without prescription. Ephedrine is a legally manufactured stimulant which is commonly used in diet aids and body building supplements. Ephedrine can also be found in some herbal preparations. All have legitimate medical applications, but they also have the potential to be abused.

Other stimulants that are illicit and have no legitimate uses are Cathacine and Cathinone. They are two psychoactive chemicals derived from the Khat plant, which originated from the sub-Sahara regions of Africa. Methcathinone is an illicitly manufactured stimulant made from common household chemicals. It's effects are very similar to methamphetamine.

B. Possible Effects of CNS Stimulants

Cocaine and the amphetamines produce euphoria, a feeling that there are no problems. A feeling of super strength and absolute self confidence may also be present. With cocaine, but not with the amphetamines, there is also an anesthetic effect, i.e., a dulling of pain.

Stimulant users tend to become hyperactive, e.g., nervous, extremely talkative and unable to stand still. Stimulants also tend to release the user's inhibition, and to impair the user's ability to perceive time and distance. Persons under the influence of stimulants become easily confused and lose the ability to concentrate or to think clearly for any length of time.

C. Onset and Duration of Stimulants' Effects

1. Cocaine

In general, cocaine is a fairly fast acting, but short duration drug.

When smoked, or "freebased", cocaine goes very quickly to the brain. The smoker almost immediately feels a "rush", or very intense euphoria. However, the effects continue to be felt for only about 5-10 minutes.

When injected, the effects also begin very quickly, usually within just a few seconds, and the onset of effects is very intense. The effects usually continue to be felt for 45-90 minutes.

When insufflated or snorted, the onset of effects is still fairly rapid, although not so fast as with smoking or injection. The user generally feels the onset within about 30 seconds. A "rush" occurs, although it is not quite as intense as when the cocaine is smoked or injected. The user generally continues to feel the effects for 30-90 minutes after snorting the cocaine.

When taken orally, the user generally does not start to feel the effects of the cocaine for 3-5 minutes. And, the effects are not as intense as they are with other methods of ingestion. For these reasons, oral ingestion is the least preferred method of using cocaine. However, the effects of cocaine taken orally may last 15-30 minutes longer than they do when other methods of ingestion are used. Total hr = 45 - 120min

Because cocaine's effects are of relatively short duration, a cocaine user can present some difficulty to a drug recognition expert. The suspect may have been markedly impaired when first contacted by the arresting officer. But by the time the suspect is brought to the DRE, the effects of cocaine may have worn off to the point that the indicators of stimulant influence are no longer apparent. The DRE may be understandably frustrated when this occurs, but his or her conclusions as to the probable categories of drugs involved must reflect the observable evidence gleaned from the drug evaluation and classification examinations. The DRE should never "force" a conclusion as to an impairment that might have existed 30 minutes or an hour ago when he or she has no personal, credible basis for that conclusion.

Suspects who have ingested both cocaine and alcohol will produce a metabolite know as "Cocaethylene". This has a half-life of four hours, that possibly extends the effects of cocaine longer than norm.

Coke +

2. Methamphetamine

Methamphetamine also is a fairly fast acting drug, and its effects are very similar to cocaine's. However, methamphetamine's effects last a good deal longer.

When injected, methamphetamine's effects begin to be felt within a very few seconds. The user experiences an intense "rush", which lasts at the high level of intensity for 5-30 seconds. Subsequently, the user stays "high" or "wired' for 4-8 hours.

When methamphetamine is taken orally, the onset of effects is delayed, the "rush" is much less intense and the effects last longer.

When methamphetamine is snorted, the onset of effects is not quite as rapid as with smoking or injecting. The onset of effects are within 30 seconds, the rush is not as intense and the effects last between 30 and 90 minutes.

When "Ice" or "crystal meth" is smoked, the "rush" is very rapid and intense, much like the "rush" produced by "Crack". However, the "Ice" smoker usually will remain impaired for at least several hours.

D. Signs and Symptoms of Stimulant Overdose

The euphoria expected by a stimulant user can be replaced by panic if an overdose is taken. The user may become very confused, and suddenly aggressive. They can suffer convulsions, and possibly faint or pass into a coma. Heartbeat will increase, possibly dramatically, and heart arrhythmia (irregular beating) may develop. This may lead to cardiac arrest. Death can also occur from sudden respiratory failure.

Another danger is that subjects or their friends may attempt to counteract a stimulant overdose with barbiturates, possibly leading to an overdose of CNS depressant.

Overdoses of cocaine of amphetamines can cause the pleasurable effects to turn into panic and often violent behavior. If the overdose is caused by cocaine, it is commonly referred to as, Cocaine Psychosis or Cocaine Delirium. Hallucinations may occur and many overdose victims complain of the feeling that bugs are crawling under their skin. This is commonly known as "coke bugs".

E. Expected Results of the Evaluation

When a person under the influence of CNS stimulants is examined by a drug recognition expert, the following results can be expected.

Horizontal Gaze Nystagmus - none.

Vertical Nystagmus - none.

Lack of Convergence - none.

Pupil Size will be dilated. The pupils will usually appear markedly dilated (mydriasis), possibly even under direct light.

Pupil's reaction to light - slow.

Pulse Rate - up.

Blood Pressure - up.

Temperature - up.

Bruxism (i.e., grinding of the teeth) may be evident.

Injection Sites might be found, e.g., on the arms, wrists, neck, etc., especially with methamphetamine users but also with some cocaine users. Other cocaine users who routinely snort their drug may exhibit severe redness in the nasal area, and possibly scarring or erosion of the nasal septum.

General indicators

- restlessness
- euphoria
- anxiety
- talkativeness
- irritability
- runny nose
- redness to nasal area
- grinding teeth, bruxism
- leg and eyelid tremors
- muscle tone is rigid.

Topics for study

1. Why is it sometimes difficult for a drug recognition expert to obtain evidence of stimulant influence when examining a cocaine user?

2. What kinds of illicitly manufactured amphetamines are most commonly abused?

3. Name two CNS Stimulants other than Cocaine or the Amphetamine compounds.

4. How do stimulants usually affect the blood pressure and pulse rate?

5. True or false: A person under the influence of a CNS Stimulant alone usually will not exhibit horizontal gaze nystagmus?

6. What is "bruxism"?

7. Fill in the blank: "Crack" is to cocaine as Crank is to methamphetamine.

I rritible
I ncreased Alert
I nsomnia

E uphoria
E xcited
E taggerated Reflexes

R unny Nose
R ed nose
R estless

G rinding teeth (Bruxism)
L oss of Appetite

A nxious
D ry mouth
Talkative
Body Tremors

Triple I , Triple E , Triple R

GLAD Talk about Body Tremors

EVALUATOR: MOEN, R #6762

Page 1 of 2

DRUG INFLUENCE EVALUATION

BOOKING NO: 003 | DR: X-1

ARRESTEE'S NAME (LAST, FIRST, MI): HEDLUND, JAMES R. | AGE: 39 | SEX: M | RACE: W | ARRESTING OFFICER (NAME, SERIAL #, DIV.): ENGLE, R #9922 VSP

DATE EXAMINED/TIME/LOCATION: July 8, 1996 2230 CENTRAL TESTING | BREATH RESULTS: ☐ Refused Results 0.00 % Instrument # 1234 | CHEMICAL TEST: ☐ Urine ■ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN: ■ Yes ☐ No Given by: ENGLE, R. | What have you eaten today? When? CANDY BAR AROUND NOON | What have you been drinking? How much? NOTHING | Time of last drink? N/A

Time now? 8 o'clock | When did you last sleep? How long? LAST NIGHT 3HRS | Are you sick or injured? ☐ Yes ■ No | Are you diabetic or epileptic? ☐ Yes ■ No

Do you take insulin? ☐ Yes ■ No | Do you have any physical defects? ☐ Yes ■ No | Are you under the care of a doctor/dentist? ☐ Yes ■ No

Are you taking any medication or drugs? ☐ Yes ■ No | ATTITUDE: COOPERATIVE | COORDINATION: POOR STUMBLING

SPEECH: RAPID, NERVOUS | BREATH: NORMAL | FACE: NORMAL

CORRECTIVE LENS: ■ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft | Eyes: ■ Normal ☐ Bloodshot ☐ Watery | Blindness: ■ None ☐ L. Eye ☐ R. Eye | Tracking: ■ Equal ☐ Unequal

PUPIL SIZE: ■ Equal ☐ Unequal (explain) | HGN Present: ☐ Yes ■ No | Able to follow stimulus: ■ Yes ☐ No | Eyelids: ■ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 112, 2240	Lack of Smooth Pursuit	NO	NO
2. 108, 2253	Max. Deviation	NO	NO
3. 100, 2305	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ■ No

Convergence: Right Eye / Left Eye

ONE LEG STAND: (25) R, (21) L

BALANCE EYES CLOSED: 3 3 0 0

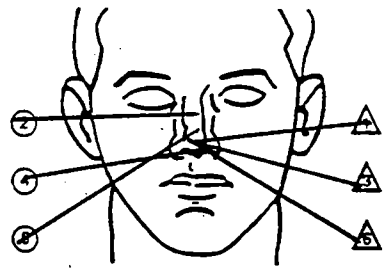
WALK AND TURN TEST: HAD DIFFICULTY STANDING STILL DURING INSTRUCTIONS

	1st Nine	2nd Nine
Cannot keep balance	V V	
Starts too soon	V	
Stops Walking		
Misses Heel-Toe		
Steps off Line		
Raises Arms	VVV	VV
Actual Steps Taken	9	9

L	R	
☐	☑	Sways while balancing.
☑	☑	Uses arms to balance.
☑	☐	Hopping.
☑	☑	Puts foot down.

INTERNAL CLOCK: 15 Estimated as 30 sec. | Describe Turn: TURNED IN ONE QUICK MOVEMENT (SWIVEL) | Cannot do Test (explain): N/A | Type of Footwear: COMBAT BOOTS

○ Right △ Left — Draw lines to spots touched



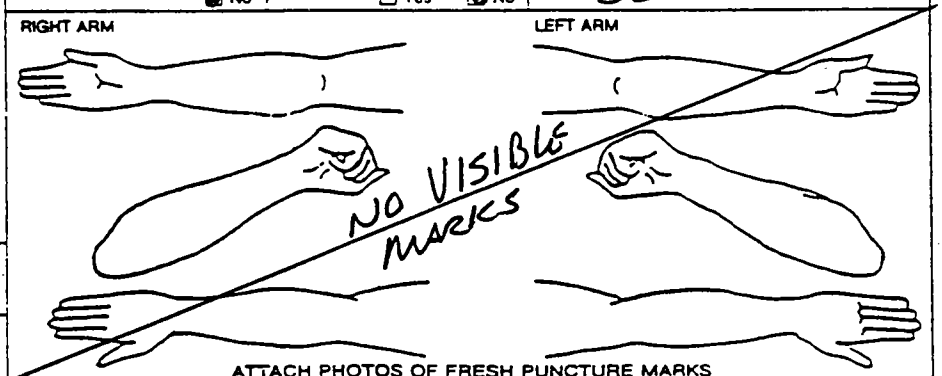
PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	6.0	8.5	7.5	6.0
Right Eye	6.0	8.5	7.5	6.0

NASAL AREA: WHITE POWDER RESIDUE IN NOSE

ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ■ No | REBOUND DILATION: ☐ Yes ■ No | Reaction to Light: SLOW

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 142, 96 | TEMP: 99.9 °

MUSCLE TONE: ☐ Near Normal ☐ Flaccid ■ Rigid

Comments:

What medicine or drug have you been using? How much? NOTHING | I WON'T ANSWER THAT | Time of use? N/A | Where were the drugs used? (Location) N/A

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
July 8, 1996 2200	2220	2230	2310

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	Ron Moen	6762	VSP		TALE, T

DRUG INFLUENCE EVALUATION Page 2 of 2

LOG NO.	DRE: Officer Ron Moen	ARRESTEE: James R. Hedlund

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of James R. Hedlund took place in the DRE Room, 3rd Precinct, Tucson PD

2. WITNESS: Arresting Officer - Officer R. Engle, #2309 Tucson PD

3. BREATH TEST: Officer Engle administered Intoxilyzer breath test to Hedlund, the result was 0.00%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was notified by Officer Engle immediately upon completion of the breath test. Officer Engle stated subject had been apprehended for driving 110/65 zone and driving without headlights.

5. INITIAL OBSERVATIONS: Writer observed subject in the DRE room sitting next to Officer Engle. Subject rocked rocked back and forth while seated on the bench.

6. MEDICAL PROBLEMS: None observed or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" front to back and estimated 15 seconds as 30 seconds. Walk and Turn: Subject started to soon, lost balance during instructions, raised his arms, and turned in an abrupt swivel. One Leg Stand: Subject swayed, raised his arms, hopped and put his foot down. Finger to Nose: Subject missed tip of his nose on each attempt with his right hand.

8. CLINICAL INDICATORS: Subject's pulse, blood pressure and temperature were above the normal range. His pupils were dilated and reacted slowly to light.

9. SIGNS of INGESTION: Subjects nostrils were found to contain a residue of white powder.

10. STATEMENTS: Subject denied taking any medicine or drugs. When asked, "how much coke did you snort tonight?" Subject stated "I won't answer that"

11. OPINION of EVALUATOR: In my opinion James R. Hedlund is under the influence of a CNS Stimulant and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provided a blood sample.

13. MISCELLANEOUS:

EVALUATOR: JOHN, C

Page 1 of 2 — **DRUG INFLUENCE EVALUATION**

BOOKING NO. 004 | DR. X-2

ARRESTEE'S NAME (LAST, FIRST, MI): KOHLHEPP, KIM J. | AGE: 38 | SEX: M | RACE: W | ARRESTING OFFICER (NAME, SERIAL #, DIV.): ROBERTS, R #2468 CPD

DATE EXAMINED/TIME/LOCATION: OCT 10, 1996 2315 3RD DIST | BREATH RESULTS: ☐ Refused, Results 0.00, Instrument # 1234 | CHEMICAL TEST: ☐ Urine ☒ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN: ☒ Yes ☐ No, Given by: ROBERTS, R | What have you eaten today? When? HOT DOG 1PM | What have you been drinking? How much? NOTHING | Time of last drink? N/A

Time now? MIDNIGHT | When did you last sleep? How long? YESTERDAY 4HRS | Are you sick or injured? ☐ Yes ☒ No | Are you diabetic or epileptic? ☐ Yes ☒ No

Do you take insulin? ☐ Yes ☒ No | Do you have any physical defects? ☐ Yes ☒ No | Are you under the care of a doctor/dentist? ☐ Yes ☒ No

Are you taking any medication or drugs? ☐ Yes ☒ No, I DON'T DO DRUGS | ATTITUDE: COOPERATIVE BUT RESTLESS | COORDINATION: POOR JITTERY STUMBLING

SPEECH: VERY TALKATIVE RAPID "TRAPPING" OVER WORDS | BREATH: NORMAL | FACE: NORMAL

CORRECTIVE LENS: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft | Eyes: ☒ Normal ☐ Bloodshot ☐ Watery | Blindness: ☒ None ☐ L. Eye ☐ R. Eye | Tracking: ☒ Equal ☐ Unequal

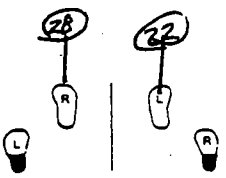
PUPIL SIZE: ☒ Equal ☐ Unequal (explain) | HGN Present: ☐ Yes ☒ No | Able to follow stimulus: ☒ Yes ☐ No | Eyelids: ☒ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 100, 2320	Lack of Smooth Pursuit	NO	NO
2. 108, 2331	Max. Deviation	NO	NO
3. 104, 2343	Angle of Onset	NONE	NONE

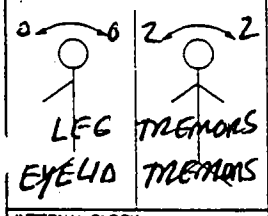
Vertical Nystagmus? ☐ Yes ☒ No

Convergence: Right Eye → Left Eye ←

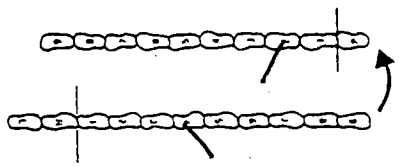
ONE LEG STAND



BALANCE EYES CLOSED



WALK AND TURN TEST



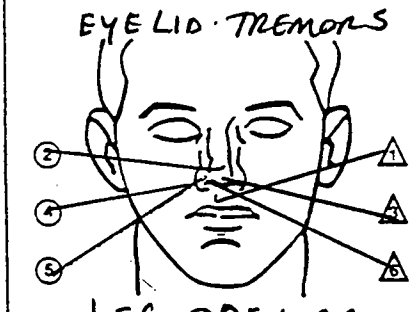
Cannot keep balance ____ Starts too soon ____

	1st Nine	2nd Nine
Stops Walking		
Misses Heel-Toe		
Steps off Line	✓	✓
Raises Arms	✓✓	✓
Actual Steps Taken	9	9

L	R	
☒	☒	Sways while balancing.
☒	☒	Uses arms to balance.
☒	☐	Hopping.
☒	☒	Puts foot down.

INTERNAL CLOCK: 12 Estimated as 30 sec. | Describe Turn: SWIVEL TURN ONE QUICK MOTION | Cannot do Test (explain): N/A | Type of Footwear: STREET SHOES

☐ Right △ Left Draw lines to spots touched

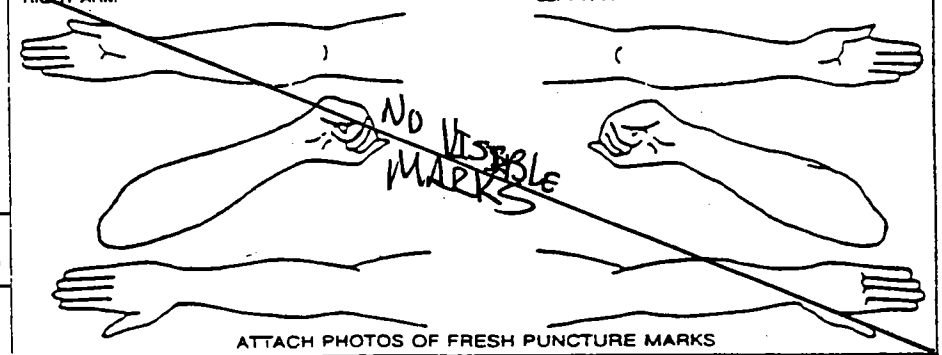


PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	6.5	9.0	8.0	6.0
Right Eye	6.5	9.0	8.0	6.0

NASAL AREA: RED RUNNY ULCERATION INSIDE NOSE | ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ☒ No | REBOUND DILATION: ☐ Yes ☒ No | Reaction to Light: SLOW

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 144, 104 | TEMP: 99.8°

MUSCLE TONE: ☒ Near Normal ☐ Flaccid ☐ Rigid

Comments:

What medicine or drug have you been using? How much? I DON'T USE DRUGS ANYMORE | Time of use? REFUSED | Where were the drugs used? (Location) REFUSED

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
OCT 10, 1996 2240	2305	2315	2345

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	Frank John	7766	VTP		STUBBS R.

DRUG INFLUENCE EVALUATION Page 2 of 2

LOG NO.	DRE: Officer Clark John	ARRESTEE: Kim J. Kohlhepp (m)

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Kim J. Kohlhepp took place in the DRE Room, 3rd Precinct, Alburqueque PD

2. WITNESS: Arresting Officer - Officer R. Roberts, #8712 Alburqueque PD

3. BREATH TEST: Officer Roberts administered Intoxilyzer breath test to Kohlhepp, the result was 0.00%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was notified by Officer Roberts immediately upon completion of the breath test. Officer Roberts stated subject had been apprehended for driving 65/30 zone, failure to stop for a traffic signal and driving without headlights.

5. INITIAL OBSERVATIONS: Writer observed subject in the DRE room standing next to Officer Roberts. When told to sit down, subject stood up again within several seconds and fidgeted from foot to foot.

6. MEDICAL PROBLEMS: None observed or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 2" side to side and estimated 15 seconds as 30 seconds. Walk and Turn: Subject stepped off the line, raised his arms, and turned in an abrupt (about face) One Leg Stand: Subject swayed, raised his arms, hopped and put his foot down. Finger to Nose: Subject missed tip of his nose on each attempt.

8. CLINICAL INDICATORS: Subject's pulses, blood pressure and temperature were above the normal range. His pupils were dilated and reacted slowly to light.

9. SIGNS of INGESTION: Subjects nostrils were found to be red and ulcerated.

10. STATEMENTS: Subject denied ever using drugs. Subsequently stated "I don't use drugs anymore"

11. OPINION of EVALUATOR: In my opinion Kim Kohlhepp is under the influence of a CNS Stimulant and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provided a blood sample.

13. MISCELLANEOUS: There is an outstanding bench warrant on the subject Kim J. Kohlhepp, for failure to appear on a charge of possession of methamphetamine.

SESSION XI

PRACTICE: EYE EXAMINATIONS

SESSION XI PRACTICE: EYE EXAMINATIONS

Upon successfully completing this session, the participants will be able to:

- Conduct examinations of pupil size and reaction to light, under both lighted room and darkened room conditions.
- Articulate the eye examination procedures.
- Document the results of the eye examinations.

In this session, you will practice estimating pupil size and assessing pupils' reaction to light. You will work in a team with fellow students, taking turns examining each other's eyes.

When it is not your turn either to administer the eye exams or serve as the examination subject, you should try to monitor the work of your team mate who is administering the exams and coach him or her as appropriate. In this way you can assist each other in developing skills.

To prepare for this session, make sure you can correctly answer the following questions:

1. How can you produce the faint, reddish light needed for the estimation of pupil size under near-total darkness?

2. How should you aim the penlight to examine pupil size under indirect light?

3. How far in front of the subject's eye should the pen light be held during the direct light examination? How long must you shine the light into the subject's eye to evaluate the pupil's reaction to light?

(The information needed to answer these questions can be found in Part "F" of Session IV)

4. What is the technical term meaning "constricted pupils"?

5. What is the technical term meaning "dilated pupils"?

6. What is the technical term meaning "droopy eyelids"?

(The information needed to answer these questions can be found in Session V.)

EYE EXAMINATIONS DATA SHEET

Paul

Subject's Name

Under Room Light

	Left	Right
Room Light	4 mm	4 mm
Direct Light	3.5 mm	3.5 mm

Reaction: Normal

Hippus: ____Yes ___/___No

In the Dark Room

	Left	Right
Near Total	6.5 mm	6.5 mm
Indirect Light	6.5 mm	6.5 mm
Direct Light	3 mm	3 mm

Reaction: Normal

Hippus: ____Yes ___X___No

Phil

Subject's Name

Under Room Light

	Left	Right
Room Light	3.5 mm	3.5 mm
Direct Light	3 mm	3 mm

Reaction: Normal

Hippus: ____Yes ___X___No

In the Dark Room

	Left	Right
Near Total	5	5
Indirect Light	4.5	4.5
Direct Light	2.5	2.5

Reaction: Normal

Hippus: ____Yes ___X___No

~~Scott~~ ED

Subject's Name

Under Room Light

	Left	Right
Room Light	3 mm	3 mm
Direct Light	2.5 mm	2.5 mm

Reaction: Normal

Hippus: ____Yes ___X___No

In the Dark Room

	Left	Right
Near Total	5.5	5.5
Indirect Light	5	5
Direct Light	2.5	2.5

Reaction: Normal

Hippus: ____Yes ___X___No

SESSION XII

ALCOHOL WORKSHOP

SESSION XII ALCOHOL WORKSHOP

Upon successfully completing this session, the participants will be able to:

- Correctly administer the preliminary clinical examinations and psychophysical tests used in the Drug Evaluation Procedure.
- Observe and record the suspect's performance on the preliminary clinical examinations and psychophysical tests.
- Determine the level of impairment based on the results of the suspects preliminary clinical examinations and psychophysical tests.

In this session, you will have the opportunity to practice administering portions of the Drug Evaluation and Classification Examination to persons who are actually under the influence of a drug. The drug involved is Alcohol, which undoubtedly is the most familiar and most frequently abused drug in our society. Alcohol belongs to the category of drugs known as Central Nervous System Depressants. The behaviors, signs and symptoms you observe in the volunteer drinkers participating in this session will, in many respects, be similar to what you will observe when you encounter persons under the influence of Barbiturates, Tranquilizers or other CNS Depressants.

Working in a team with fellow students, you will administer the following tests to each volunteer:

- Horizontal Gaze Nystagmus (including estimation of onset angle)
- Vertical Nystagmus
- Lack of Convergence
- Pupil Size Estimation (in room light)
- Romberg Balance
- Walk and Turn
- One Leg Stand (each volunteer will take this test twice, once on each leg)
- Finger to Nose
- Pulse Rate

You will record the results of these tests on the appropriate segments of the Drug Influence Evaluation form.

To prepare for this session, make sure that you know how to administer these tests, and that you know what clues to look for and how to recognize them. It will be a good idea to practice administering these tests (e.g., to fellow students, family members, etc.) to sharpen your skills in preparation for this session.

SESSION XIII

PHYSICIAN'S DESK REFERENCE (PDR)

SESSION XIII PHYSICIAN'S DESK REFERENCE (PDR)

Upon successfully completing this session, the participants will be able to:

- Explain how the various sections of the PDR can provide information that will:
  - aid in the drug influence evaluation;
  - aid in courtroom testimony.
- Use the PDR in a practical exercise, when presented with color photographs of typical prescription drugs encountered in law enforcement contacts, the student will correctly identify and classify those drugs, and list the signs and symptoms that can be caused by them and observed and documented during a drug influence examination.

A. The Physician's Desk Reference as a Resource

The Physician's Desk Reference for Prescription Drugs is a very useful reference source for a drug recognition expert. It provides detailed information, including photographs, on virtually every drug available for prescription in the country. Many of these drugs are either CNS depressants or CNS stimulants. Others are narcotic analgesics. Still others are combinations of these. Numerous trade names exist for certain drugs, since many manufacturers offer competing products.

During the course of an arrest and examination of a suspected drug impaired driver, it is not uncommon to discover pills, tablets, etc. on the suspect's person. Reference to the PDR usually can help to establish the identity and category of these drugs.

The PDR is published annually. Throughout the year, periodic supplements are published as new products come on the market.

B. The Contents of The PDR

The PDR contains the following color coded sections.

(1) An index of all manufacturers who provided information on their prescription drugs.

(2) An index of Product Names (including discontinued products).

(3) An index of Products by Category of Drugs.
In newer PDRs, the product category and generic sections have been combined.

(4) A Generic and Chemical name index.

(5) A Product Identification Section, including actual size and full color photographs.

(6) A Product Information Section, describing the drug's composition, action and uses, administration and dosage, precautions, side effects and contraindica-tions, the form in which it is supplied, etc.

(7) A Diagnostic Product Information section.

(8) A listing of the locations and emergency telephone numbers of poison control centers.

(9) A guide to the management of drug overdoses.

List of other reference guides:

(1) Poison Control Centers

(2) Medical Dictionaries

(3) The Pill Book, The Drug Identification Bible, and other consumer guides to drugs

(4) The DRE Newsletter

(5) Newspaper, Magazines (High Times) and other Perodicals

(6) New Software programs such as Pharmacists, Body Works, Mosbey's Medical Dictionary, and other programs on disks and CDs

(7) NHTSA (Traffic Law Enforcement Division) and State DRE Coordinators

(8) Traffic Law Center

DRUG EVALUATION AND CLASSIFICATION PROGRAM

GLOSSARY OF MEDICAL TERMS

*The Terms in this section are intended to help the DRE officer understand terms commonly used in medical literature

ARRHYTHMIA
An abnormal heart rhythm.

BRADYCARDIA
Abnormally slow heart rate; pulse rate below the normal range.

BRADYDNEA
Abnormally slow rate of breathing.

CONJUNCTIVITIS
An inflammation of the mucous membrane that lines the inner surface of the eyelids. Persons suffering from conjunctivitis may show symptoms in one eye only. This condition is commonly called "pink eye", a condition that could be mistaken for the bloodshot eyes produced by alcohol or Cannabis.

DIPLOPIA
Double Vision

DYSARTHIA
Slurred Speech. Difficult, poorly articulated speech

DYSMETRIA
A condition that affects a person from properly estimating distances.

DYSPHORIA
A disorder of mood, feelings of depression or anguish.

DYSPNEA ET AL
Shortness of breath.

GARRULITY
Rambling or pointless speech. Talkativeness.

HIPPUS
A rhythmic pulsating of the pupils of the eyes, as they dilate and constrict within fixed limits.

HYPERPNEA
A deep, rapid or labored breathing.

HYPERPYREXIA
Extremely high body temperature

HYPERREFLEXIA
A neurological condition marked by increased reflex reactions.

HYPERTENSION
Abnormally high blood pressure. Do not confuse this with hypotension.

HYPOGLYCEMIA
An abnormal decrease of blood sugar levels.

HYPOPNEA
Shallow or slow breathing.

HYPOTENSION
Abnormally low blood pressure. Do not confuse this with hypertension.

HYPOTHERMIA
Decreased body temperature.

MUSCULAR HYPERTONICITY
Rigid muscle tone.

MYDRIASIS
Abnormally dilated pupils.

PALLOR
An abnormal paleness or lack of color in the skin.

PARASYMPATHOMIMETIC DRUGS
Drugs that mimic neurotransmitters associated with the parasympathetic nerves. These drugs artificially cause the transmission of messages that produce lower blood pressure, drowsiness, etc.

PDR (Physician's Desk Reference)
A basic reference source for drug recognition technicians. The PDR provides detailed information on the physical appearance and psychoactive effects of all licitly-manufactured drugs.

PSYCHOTOGENETIC

Literally, "creating psychosis" or "giving birth to insanity". A drug is considered to be psychotogenetic if persons who are under the influence of the drug become insane, and remain so after the drug wears off.

PSYCHOTOMIMETIC

Literally, "mimicking psychosis" or "impersonating insanity". A drug is considered to be psychotomimetic if persons who are under the influence of the drug look and act insane while they are under the influence.

SYMPATHOMIMETIC DRUGS

Drugs that mimic the neurotransmitters associated with the sympathetic nerves. These drugs artificially cause the transmission of messages that produce elevated blood pressure, dilated pupils, etc.

TACHYCARDIA

Abnormally rapid heart rate; pulse rate above the normal range.

TACHYPNEA

An abnormally rapid rate of breathing.

SESSION XIV

HALLUCINOGENS

SESSION XIV HALLUCINOGENS

Upon successfully completing this session, the participants will be able to:

- Explain a brief history of the Hallucinogen category of drugs.
- Identify common drug names and terms associated with this category.
- Identify common methods of administration for this category.
- Explain the symptoms, observable signs and other effects associated with this category.
- Explain the typical time parameters, i.e., onset and duration of effects, associated with this category.
- State the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of this category of drugs.
- Correctly answer the "topics for study" questions at the end of this Section.

A. Overview of Hallucinogens

Hallucinogens are drugs that cause hallucinations. An hallucination is a sensory experience of something that does not exist outside the mind. It may involve hearing, seeing, smelling, tasting or feeling something that isn't really there. Or, it may involve distorted sensory perceptions, so that things look, sound, smell, taste or feel differently from the way they actually are.

Hallucinogenic drugs usually produce so called pseudo-hallucinations. This means that the user typically knows that what he or she is seeing, hearing, smelling, etc. is not real, but is a product of the drug.

One common type of hallucination produced by these drugs is called synesthesia, a transposing of sensory modes. For example, seeing a particular sight may cause the user to perceive a sound. Hearing a sound may cause him or her to perceive an odor. Thus, a person under the influence of an hallucinogen might hear a telephone ring, and "see" a flash of brilliant color. Or, he or she might look at something colored yellow and "smell" the fragrance of roses. Sometimes hallucinogen users will make statements indicating that they are experiencing synesthesia (examples: "That chair sounds beautiful!" "Look at those fantastic odors!"). Drug recognition experts should be alert for such statements, and be aware that they are significant indicators of this drug category.

Sometimes, the hallucinations can be very frightening to the user. The user may be panic stricken by what he or she is seeing or hearing, and may become uncontrollably excited, or even try to flee from the terror. Hallucinogen users call these kinds of experiences "bad trips". Users of hallucinogens have been known to be driven into permanent insanity by these experiences.

A terrifying "bad trip" sometimes may be re-experienced as a flashback. Hallucinogen flashbacks apparently do not occur because of a residual quantity of drug in the user's body. Rather, flashbacks apparently are vivid recollections of a portion of a previous hallucinogenic experience. Essentially, flashbacks are very intense, and very frightening, day dreams.

There are three types of flashback; emotional, somatic, and perceptual. The emotional flashback is the most dangerous. It brings back strong feelings of panic, fear and loneliness, and creates an intense and very real recollection of the original "bad trip". A somatic flashback consists of altered bodily sensations, e.g., tremors, weakness, nausea, dizziness, etc. that were part of the original "trip". In a perceptual flashback, the user re-experiences some of the sensory distortions of the original "trip".

Naturally occurring hallucinogens: some common examples.

Peyote is a small, spineless cactus containing the active hallucinogenic ingredient called mescaline. The crowns, or "buttons", of the cactus can be collected and dried, and eaten. Certain American Indian tribes have used peyote in religious ceremonies for thousands of years. Peyote currently is used legally in religious ceremonies of the Native American church.

Psilocybin is a drug found in a number of different species of mushrooms. An unstable derivative of psilocybin, called psilocin, also has hallucinogenic properties and also is found in these mushrooms. Psilocybin mushrooms also have a long history of use in Indian religious rituals.

Other naturally occurring hallucinogens include nutmeg, jimson weed, morning glory seeds and Bufotenine. The last of those is an hallucinogenic substance found in the glands of certain toads. Bufotenine is toxic; the toad secretes Bufotenine through its skin as a defensive mechanism, to make it too unpleasant for a predator to eat the toad. But you guessed it: there are people who actually lick toads to get high from Bufotenine.

Synthetically manufactured hallucinogens: some common examples.

LSD probably is the most famous synthetic hallucinogen. "LSD" is an abbreviation of Lysergic Acid Diethylamide.

MDA, MDMA, MMDA, TMA, STP, DET, and DMT are other synthetic hallucinogens. They are sometimes referred to as "psychedelic amphetamines" or "psychotomimetic amphetamines". Their effects are often similar to those of high doses of CNS stimulants.

MDA is an abbreviation for 3,4-Methylenedioxyamphetamine. Its users sometimes refer to MDA as the "Mellow Drug of America". It is normally produced as a clear liquid, or as a white powder in capsule or tablet form. MDA often is mixed with amphetamine, cocaine, methamphetamine, LSD or STP, or occasionally with strychnine. MDA probably is the most widely abused of the "psychedelic amphetamines".

MDMA is an abbreviation for Methylenedioxymethamphetamine. It is perhaps better known by the "street name" **Ecstasy**. MDMA is chemically very similar to MDA.

MMDA is an abbreviation for 5-Methoxy-3,4-Methylenedioxylamphetamine. Its effects are similar to those of MDA or peyote.

TMA is an abbreviation for 3,4,5-Trimethoxyamphetamine. Its effects are also similar to those of MDA or peyote.

STP is an abbreviation for "Serenity, Tranquility and Peace". It is also know by the chemical name DOM, or 2-Methyl-2,5-Dimethoxylamphetamine.

DET is diethyltryptamine.

DMT is dimethyltryptamine. It is sometimes known as the "businessman's trip" because its effects last only about one hour (i.e., short enough to occupy a "businessman's lunch").

An important fact about many hallucinogens is that they are not addictive. Nevertheless, many hallucinogen abusers frequently use these drugs, because they enjoy the effects.

The most common method of ingesting hallucinogens is orally. Psilocybin mushrooms and peyote "buttons" can be eaten "as is". LSD often is placed on bits of paper, or on sugar cubes, and eaten.

Some hallucinogens, such as LSD, can be put into marijuana or tobacco cigarettes and smoked.

Some MDA users snort that drug.

Some LSD users inject that drug.

B. Possible Effects of Hallucinogens

In general, hallucinogens intensify whatever mood the user is in when the drug is taken. If the user is depressed, the drug will deepen the depression. If the user is feeling pleasant, the drug usually will heighten that feeling. If the user expects that the drug will help him or her achieve new insights or an expanded consciousness, the drug will seem to have that effect. However, use of hallucinogens often uncovers mental or emotional flaws of which the user was unaware. Such flaws can result in the panic and terror of a "bad trip" even though the user was expecting a pleasurable experience.

The most common effect of an hallucinogen is hallucination. The user's perception of reality is severely distorted, often to the point of synesthesia. This makes it virtually impossible for the hallucinogen-influenced person to function in the real world.

Some users experience delusions which are false beliefs (I am an elephant!), others experience illusions (I see an elephant!), while others may experience both.

C. Onset And Duration of Hallucinogens' Effects

1. Peyote's effects generally begin to be felt within one-half hour after eating the cactus "buttons". The initial effects often include nausea, possible vomiting, mild rise in blood pressure, pulse rate and temperature. And, the pupils dilate. After about one hour, sensory changes begin. The user experiences visual distortions, accompanied by rich colors. Objects take on new forms and begin to move. Shapes "come alive". The sensory changes reach their peak in about 3-4 hours, with synesthesia occurring at about that time period. After about 10 hours there will be a gradual decline in effects, with near total recovery in about 12 hours.

2. Psilocybin's effects also start to develop in about one-half hour. The user first experiences dizziness, a light headed feeling, and giddiness. The extremities (hands, feet, etc.) begin to feel very light or very heavy. After about 30-60 minutes, vision blurs. Colors become brighter and leave longer lasting after images. Objects take on sharp visual definition and hearing becomes more acute.

   Sixty to ninety minutes after eating the mushrooms, color patterns and shapes start to develop. The surfaces of objects become wavy. Feelings of euphoria develop. Shortly thereafter, body sensations increase, along with mental perceptions. The user often becomes introspective.

   After 2-3 hours, the effects begin to diminish.

3. LSD's effects begin to be felt in 30-45 minutes. Pulse rate, blood pressure and temperature rise. The pupils dilate. The hair starts to stand on end (piloerection). Nausea, dizziness and headache develop. The effects reach their peak in about 4-6 hours. After 7-9 hours, the effects diminish. The user generally feels normal after 10-12 hours.

4. MDA's effects usually begin within 40-60 minutes. The pupils dilate. Pulse rate and blood pressure increase. The effects reach their peak in about 90-120 minutes, and usually have dissipated within 8 hours.

D. Signs And Symptoms of Hallucinogen Overdose

It is unlikely that hallucinogens directly are life threatening. However, overdoses have often indirectly resulted in death. For example, one LSD user was killed when he attempted to stop a train, bare handed. The extreme panic and agitation of a "bad trip" have been known to lead to suicide, or to accidental deaths as users have tried to flee from their hallucinations.

The most common danger of an hallucinogen overdose is an intense "bad trip", which can result in severe and sometimes permanent psychosis.

There is some evidence that prolonged use of LSD may produce organic brain damage, leading to impaired memory, reduced attention span, mental confusion, and impaired ability to deal with abstract concepts.

E. Expected Results of the Evaluation

When a person under the influence of an hallucinogen is examined by a drug recognition technician, the following results can be expected.

Horizontal Gaze Nystagmus - none.

Vertical Nystagmus - none.

Lack of Convergence - none.

Pupil size - dilated.

Pupil's reaction to light - normal. However, the psychedelic amphetamines usually will slow the pupils' reaction. (MDA)

Pulse rate - up.

Blood pressure - up.

Temperature - up.

Injection sites generally will not be found. However, some LSD users do inject the drug.

General Indicators

dazed appearance
body tremors
perspiring
uncoordinated movements
rigid muscle tone
difficulty with speech
statements suggesting hallucinations ←
distorted sensory perceptions

Muscle tone Normal / Rigid
Sm dilated pupils - Mydriasis

Topics for study

1. What does "synesthesia" mean?

2. What is a "flashback"? What are the three types of "flashback"?

3. Name two naturally occurring hallucinogens.

4. What is a "bad trip"?

5. What does "psychotomimetic" mean?

6. What is an "illusion"? What is a "delusion"?

7. What is the difference between "hallucinations" and "pseudo hallucinations"?

8. What is "piloerection"?

Dazed
Disoriented
Disorientation
Difficulty speaking
Paranoia
Perspiring
Poor perception of Time & Distance
Flashback
Uncoordinated
Hallucinations
Nausea
Body tremors
Synesthesia
Philo erection
4D 3P FUHN BS erections

"43 Fun BS erection

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: PAGE, T
BOOKING NO: 005
DR: XIV — 1

ARRESTEE'S NAME (LAST, FIRST, MI): HOECKLE, REBECCA S
AGE: 40 | SEX: F | RACE: B
ARRESTING OFFICER (NAME, SERIAL #, DIV.): BUONETO, R. #5430 HCPD

DATE EXAMINED/TIME/LOCATION: SEPT 23, 1996 / 2030 / CENTRAL TESTING
BREATH RESULTS: ☐ Refused — Results 0.100 — Instrument # 1234
CHEMICAL TEST: ☐ Urine ■ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN: ■ Yes ☐ No — Given by: BUONETO, R.
What have you eaten today? When? NOTHING I'M FASTING BECAUSE OF MY RELIGIOUS DUTIES
What have you been drinking? How much? MY RELIGION DOESN'T PERMIT ALCOHOL
Time of last drink? N/A

Time now? 7PM | When did you last sleep? How long? LAST NIGHT 7HRS
Are you sick or injured? ■ Yes ☐ No — MY STOMACH IS UPSET
Are you diabetic or epileptic? ☐ Yes ■ No

Do you take insulin? ☐ Yes ■ No
Do you have any physical defects? ☐ Yes ■ No
Are you under the care of a doctor/dentist? ☐ Yes ■ No

Are you taking any medication or drugs? ☐ Yes ■ No
ATTITUDE: GENERALLY COOPERATIVE BUT WITHDRAWN & DISTRACTED
COORDINATION: VERY POOR CAN BARELY STAND

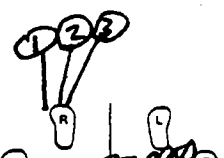
SPEECH: RAPID STUTTERING
BREATH: SOUR RANCID ODOR
FACE: FLUSHED

CORRECTIVE LENS: ■ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ■ Normal ☐ Bloodshot ☐ Watery
Blindness: ■ None ☐ L. Eye ☐ R. Eye
Tracking: ■ Equal ☐ Unequal

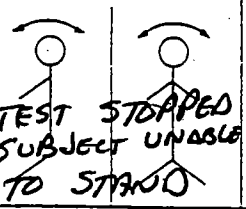
PUPIL SIZE: ■ Equal ☐ Unequal (explain)
HGN Present: ☐ Yes ■ No
Able to follow stimulus: ■ Yes ☐ No
Eyelids: ■ Normal ☐ Droopy

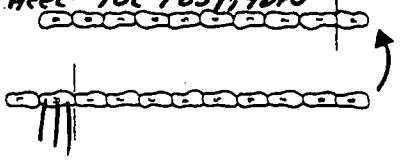
PULSE & TIME	HGN	Left Eye	Right Eye
1. 104, 2040	Lack of Smooth Pursuit	NO	NO
2. 112, 2057	Max. Deviation	NO	NO
3. 104, 2112	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ■ No
Convergence: Right Eye / Left Eye

ONE LEG STAND


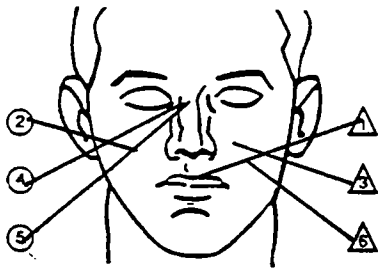
TEST STOPPED SUBJECT UNABLE TO STAND ON ONE FOOT
L R
☐ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☐ ☐ Puts foot down.

BALANCE EYES CLOSED

TEST STOPPED SUBJECT UNABLE TO STAND

WALK AND TURN TEST — TEST STOPPED SUBJECT UNABLE TO MAINTAIN HEEL-TOE POSITION

Cannot keep balance
Starts too soon

	1st Nine	2nd Nine
Stops Walking		
Misses Heal-Toe		
Steps off Line		
Raises Arms		
Actual Steps Taken		

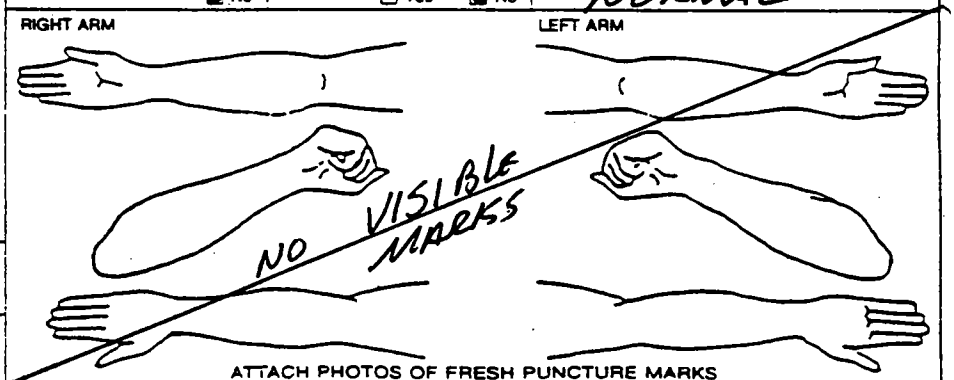
INTERNAL CLOCK: N/A Estimated as 30 sec.
Describe Turn: N/A
Cannot do Test (explain): N/A
Type of Footwear: MOCCASINS

○ Right △ Left — Draw lines to spots touched


PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	6.0	8.0	7.0	5.5
Right Eye	6.0	8.0	7.0	5.5

NASAL AREA: CLEAR
ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ■ No
REBOUND DILATION: ☐ Yes ■ No
Reaction to Light: NORMAL

RIGHT ARM / LEFT ARM


ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 148, 104 TEMP: 100.0 °
MUSCLE TONE: ☐ Near Normal ☐ Flaccid ■ Rigid
Comments: RIGIDITY IN ARMS

What medicine or drug have you been using? How much? MY MEDIUM DOESN'T PERMIT DRUGS
Time of use? N/A
Where were the drugs used? (Location) N/A

DATE/TIME OF ARREST: SEP 23, 1996 1930
TIME DRE NOTIFIED: 2010
EVAL START TIME: 2030
TIME COMPLETED: 2115

CONTROL #
EXAMINING OFFICER: Tom Page
SERIAL NO: 3744
DIVISION
UNAVAILABLE DATES
REVIEWED BY: Conrad, M.

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Sgt. Tom Page	ARRESTEE: Rebecca S. Hoeckle

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Rebecca S. Hoeckle took place in the Central Testing Unit, Nassau County PD

2. WITNESS: Arresting Officer - Officer R. Buoneto, Nassau County PD and ADA Edward Bracken, Suffolk County

3. BREATH TEST: Officer Buoneto administered an Intoxilyzer breath test to Hoeckle, the result was 0.00%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was notified by Officer Buoneto and requested to conduct a DRE evaluation. Officer Buoneto stated the subject had been operating her 1994 Chevrolet (NY127 NCQ) and was stopped in the S/B traffic lane of Island Drive, at the intersection with Hauppage Drive for a green light. Upon approaching the vehicle, subject turned to him, pointed to the traffic light and said "God is light and the light is of God"

5. INITIAL OBSERVATIONS: Subject was seated next to the Intoxilyzer table and staring fixedly ahead. She slowely turned towards me and asked "are you of God?" I replied that my name was Tom, and that I would like to examine her. She nodded and said," God sent you therefore you must be good." Her speech was rapid and she stuttered slightly.

6. MEDICAL PROBLEMS: Subject indicated she was experiencing a mildly upset stomach. At the end of the DRE examination, Dr. J. P. Mooney was summoned to examine her.

7. PSYCHOPHYSICAL TESTS: Subject was unable to stand without assistance, and it was necessary to terminate the Romberg Balance, Walk and Turn, and the One Leg Stand Tests virtually immediately for the subjects own safety. Finger to Nose was conducted while the subject was in the seated position she missed tip of her nose on each attempt.

8. CLINICAL INDICATORS: Subject's pulse, blood pressure and temperature were above the normal range, and her pupils were dilated.

9. SIGNS of INGESTION: Subjects breath had a sour and rancid odor.

10. STATEMENTS: Subject stated that she was fasting for religious reasons, and that her religion forbids the ingestion of alcoholic beverages. She also stated that her medium doesn't allow her to use drugs. She further indicated that her medium is her religious leader a man "whose body is of fire and air, and whose spirit is of light, which is of God" She indicated she had just attended a service conducted by the medium.

11. OPINION of EVALUATOR: In my opinion Rebecca S. Hoeckle is under the influence of a Hallucinogen and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provided a blood sample.

13. MISCELLANEOUS:

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: HAVERSAT, A.
BOOKING NO.: 006
DR.: XIV-2

ARRESTEE'S NAME (LAST, FIRST, MI): WARBURTON, CINDY T.
AGE: 32 | SEX: F | RACE: W
ARRESTING OFFICER (NAME, SERIAL #, DIV.): JACKSON, F. #6310 CPD
DATE EXAMINED/TIME/LOCATION: APRIL 25, 1996 2300 2ND DIST
BREATH RESULTS: ☐ Refused Results 0.00 Instrument # 1234
CHEMICAL TEST: ☐ Urine ● Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN: ● Yes ☐ No Given by: JACKSON, F.	What have you eaten today? SPAGHETTI	When? LUNCH	What have you been drinking? How much? NOTHING Time of last drink? N/A
Time now? 7PM When did you last sleep? YESTERDAY How long? 6 HRS	Are you sick or injured? I DON'T THINK SO BUT I FEEL HOT ☐ Yes ● No		Are you diabetic or epileptic? ☐ Yes ● No
Do you take insulin? ☐ Yes ● No	Do you have any physical defects? ☐ Yes ● No		Are you under the care of a doctor/dentist? ☐ Yes ● No
Are you taking any medication or drugs? ☐ Yes ● No	ATTITUDE: COOPERATIVE BUT FEARFUL & DISTRACTED		COORDINATION: POOR STAGGERING
SPEECH: RAMBLING OFTEN INCOHERENT	BREATH: NORMAL		FACE: PERSPIRING

CORRECTIVE LENS: ● None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ● Normal ☐ Bloodshot ☐ Watery
Blindness: ● None ☐ L Eye ☐ R Eye
Tracking: ● Equal ☐ Unequal
PUPIL SIZE: ● Equal ☐ Unequal (explain)
HGN Present: ☐ Yes ● No
Able to follow stimulus: ● Yes ☐ No
Eyelids: ● Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 112 / 2310	Lack of Smooth Pursuit	NO	NO
2. 116 / 2325	Max. Deviation	NO	NO
3. 116 / 2340	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ● No
Convergence: Right Eye / Left Eye

ONE LEG STAND: LEG SHAKING SEVERELY

BALANCE EYES CLOSED

WALK AND TURN TEST: LEG TREMORS

	1st Nine	2nd Nine
Cannot keep balance	VV	
Starts too soon	V	
Stops Walking	VV	V
Misses Heel-Toe	VVV	VVVV
Steps off Line		V
Raises Arms	CONSTANT	CONSTANT
Actual Steps Taken	9	8

☐ L ☐ R Sways while balancing.
☐ L ☐ R Uses arms to balance.
☐ L ☐ R Hopping.
☐ L ☐ R Puts foot down.

INTERNAL CLOCK: LD Estimated as 30 sec.
Describe Turn: LOST BALANCE STUMBLED NEARLY FELL
Cannot do Test (explain): N/A
Type of Footwear: LOAFERS

○ Right △ Left
Draw lines to spots touched
"I CAN'T FEEL MY FACE"

PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	6.0	7.5	7.0	5.5
Right Eye	6.0	7.5	7.0	5.5

NASAL AREA: CLEAR
ORAL CAVITY: CLEAR
HIPPUS: ☐ Yes ● No
REBOUND DILATION: ☐ Yes ● No
Reaction to Light: NORMAL

RIGHT ARM / LEFT ARM
NO VISIBLE MARKS
ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 150 / 102
TEMP: 99.8°
MUSCLE TONE: ☐ Near Normal ☐ Flaccid ● Rigid
Comments: ARM + LEGS RIGID

What medicine or drug have you been using? How much? NOTHING
Time of use? NO ANSWER
Where were the drugs used? (Location) NO ANSWER

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
APR 25, 1996 2230	2240	2300	2345

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	Art Haversat	6632	HTD		RICHARDSON, S.

DRUG INFLUENCE EVALUATION Page 2 of 2

LOG NO.	DRE: Sgt. Art Haversat	ARRESTEE: Cindy T. Warburton

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Cindy T. Warburton, took place in the DRE room, 2nd District Hdqtrs. Capitol PD

2. WITNESS: Arresting Officer - F. Jackson # 6310 Capitol PD and R.C. Studdard, IACP/TAP Representative

3. BREATH TEST: Writer observed Officer Jackson administer GCI breath test to Warburton, the result was 0.00%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was serving as on-duty DRE for 2nd District when informed by dispatch that Officer Jackson was enroute with a subject and was requesting a drug evaluation. Upon arrival Officer Jackson stated the subject had been arrested driving N/B along the gravel shoulder of the S/B lane Higgenbotham Ave. Jackson further stated the subject pointed to the police baton and shouted "My God there's a terrible big snake hanging from your belt. Subsequently, she shouted that the blue and red emergency lights on his of cruiser were bleeding into her eyes and skin.

5. INITIAL OBSERVATIONS: Writer observed subject seated next to the GCI. Subject was very frightened and disoriented. She pointed to the clock on the wall and shouted "Keep that off me, keep it away!" At the time the clock indicated 2245 hours. Minutes later in response to my question "What time is it now?" Subject stated it was "7 o'clock"

6. MEDICAL PROBLEMS: None observed or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" side to side and estimated 10 seconds as 30 seconds. Walk and Turn: Subject started walking to soon, lost her balance during the instructions, missed heel to toe, stopped walking, stepped off the line, raised her arms, staggered while turning, and only took (8) steps on the way back. One Leg Stand: Subject swayed, raised arms, hopped, and put her foot down. Finger to Nose: Subject missed tip of her nose on each attempt. She opened her eyes and shouted "I can't feel my face! My face is missing!"

8. CLINICAL INDICATORS: Subject had dilated pupils. Blood pressure, pulse, and temperature were above the normal range.

9. SIGNS of INGESTION: None were evident

10. STATEMENTS: Subject stated that she felt hot, and denied any drug use.

11. OPINION of EVALUATOR: In my opinion Cindy T. Warburton is under the influence of a Hallucinogen, and unable to operate a vehicle safely

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS: At the time of the evaluation, subject was wearing a T-shirt bearing the words "Legalize Acid"

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: HOHN, R.
BOOKING NO.: 007
DR#: XIV-3

ARRESTEE'S NAME (LAST, FIRST, MI): BUCHANAN, LEW B.
AGE: 35 | SEX: M | RACE: B
ARRESTING OFFICER (NAME, SERIAL #, DIV.): GREGORY, D. #3210 NCPD

DATE EXAMINED/TIME/LOCATION: JAN 25, 1996 0115 CENTRAL TESTING
BREATH RESULTS: ☐ Refused Results 0.05 Instrument # 1234
CHEMICAL TEST: ☐ Urine ■ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN: ■ Yes ☐ No
Given by: GREGORY D.
What have you eaten today? When? PIZZA ABOUT 6 PM
What have you been drinking? How much? Couple of BEERS
Time of last drink? 8 PM
Time now? 10 PM
When did you last sleep? How long? LAST NIGHT 3 HRS
Are you sick or injured? I THINK I MIGHT THROW UP ■ Yes ☐ No
Are you diabetic or epileptic? ☐ Yes ■ No
Do you take insulin? ☐ Yes ■ No
Do you have any physical defects? ☐ Yes ■ No
Are you under the care of a doctor/dentist? ☐ Yes ■ No
Are you taking any medication or drugs? ☐ Yes ■ No

ATTITUDE: WITHDRAWN / COOPERATIVE
COORDINATION: VERY POOR - STAGGERING
SPEECH: DIFFICULTY IN SPEAKING RAMBLING
BREATH: NORMAL
FACE: DAZED PERSPIRING HEAVILY

CORRECTIVE LENS: ■ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☐ Normal ☐ Bloodshot ■ Watery
Blindness: ■ None ☐ L. Eye ☐ R. Eye
Tracking: ■ Equal ☐ Unequal
PUPIL SIZE: ■ Equal ☐ Unequal (explain)
HGN Present: LACK OF SMOOTH PURSUIT ■ Yes ☐ No
Able to follow stimulus: ■ Yes ☐ No
Eyelids: ■ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 116 / 0130	Lack of Smooth Pursuit	YES	YES
2. 112 / 0147	Max. Deviation	NO	NO
3. 104 / 0200	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ■ No
Convergence: Right Eye ✓ Left Eye ✓

ONE LEG STAND: TEST STOPPED

BALANCE EYES CLOSED: CIRCULAR SWAY

WALK AND TURN TEST: TEST STOPPED COULD NOT MAINTAIN STANCE
STATED THAT THE WHITE LINE RESEMBLED A LAZY SNAKE

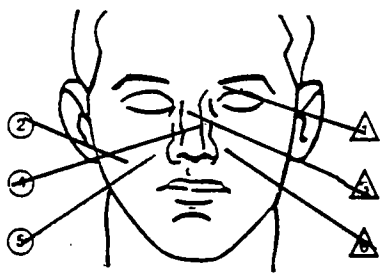
Cannot keep balance ✓
Starts too soon

	1st Nine	2nd Nine
Stops Walking		
Misses Heel-Toe		
Steps off Line		
Raises Arms		
Actual Steps Taken		

L R
☑ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☑ ☐ Puts foot down.

INTERNAL CLOCK: 35 Estimated as 30 sec.
Describe Turn: N/A.
Cannot do Test (explain): STEPPED OFF LINE 3 TIMES DURING INSTRUCTIONS
Type of Footwear: RUNNING SHOES

○ Right △ Left
Draw lines to spots touched

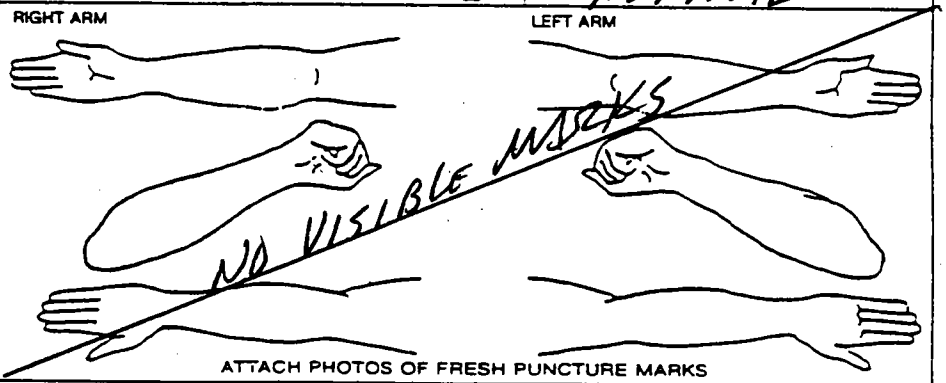


PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	5.5	8.5	7.5	5.0
Right Eye	5.5	8.5	7.5	5.0

NASAL AREA: CLEAR
ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ■ No
REBOUND DILATION: ☐ Yes ■ No
Reaction to Light: NORMAL

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 146 / 102
TEMP: 100.5 °
MUSCLE TONE: ☐ Near Normal ☐ Flaccid ■ Rigid
Comments: ARMS, NECK, FACE RIGID

What medicine or drug have you been using? How much? NOTHING NO ANSWER
Time of use? NO ANSWER
Where were the drugs used? (Location) NO ANSWER

DATE/TIME OF ARREST: JAN 25, 1996 0040
TIME DRE NOTIFIED: 0100
EVAL START TIME: 0115
TIME COMPLETED: 0205

CONTROL #
EXAMINING OFFICER: [signature] Hohn
SERIAL NO: 2225
DIVISION: AHP
UNAVAILABLE DATES
REVIEWED BY: ZARAGA J.

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Sgt. Bob Hohn	ARRESTEE: Lew B. Buchanan

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Lew B. Buchanan, took place in the DRE room, Central Testing Unit Nassau County

2. WITNESS: Arresting Officer - D. Gregory , Nassau County PD

3. BREATH TEST: Writer observed Officer Gregory administer GCI breath test to Buchanan, the result was 0.05%.

Subject later admitted to consuming "a couple of beers"

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was summoned to Central Testing to

conduct a DRE evaluation. Officer Gregory stated he had observed subject driving at 10/55 zone on the

Cross Island Parkway, drifting from lane to lane. Subject performed poorly on the SFSTs.

5. INITIAL OBSERVATIONS: Writer observed subject in the breath testing room, he was swaying slightly as he stood,

and appeared dazed and disoriented. He responded slowly to my greeting, but was generally cooperative and

responsive to questions. In response to my question "What time is it now?" Subject stated it was "about 10 o'clock"

6. MEDICAL PROBLEMS: Subject indicated some nausea

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" in a circular motion and

estimated 35 seconds as 30 seconds. Walk and Turn and One Leg Stand: Subject was unable to perform tests. Tests

were terminated for subject's safety. Finger to Nose: Subject missed tip of his nose on each attempt.

8. CLINICAL INDICATORS: Subject exhibited lack of smooth pursuit and dilated pupils. Blood pressure, pulse, and

temperature were above the normal range.

9. SIGNS of INGESTION: None were evident

10. STATEMENTS: Subject stated that he did not used any drugs.

11. OPINION of EVALUATOR: In my opinion Lew B. Buchanan is under the influence of Alcohol and a

Hallucinogen, and unable to operate a vehicle safely

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS:

SESSION XV

PRACTICE: TEST INTERPRETATION

SESSION XV PRACTICE: TEST INTERPRETATION

Upon successfully completing this session, the participants will be able to:

- Analyze the results of a complete Drug Evaluation and Classification Examination and identify the category or categories of drugs affecting the individual examined.

- Articulate the bases for the drug category identification.

In this session, you will have an opportunity to review some Drug Evaluation and Classification report forms. These "exemplars" are not based on examinations of actual suspects, but the "findings" they display are realistic simulations of what you will observe when you examine suspected drug impaired drivers in the future.

Your task is to review the forms, consider all of the "evidence" they provide, and decide what category of drugs -- if any -- is involved in each case. Naturally, since we have only covered three categories thus far in our training, the "exemplars" only reflect those categories. Also, to make this practice session relatively easy, no combinations of categories have been included in these "exemplars".

In subsequent practice sessions of this type, you will be exposed to "exemplars" reflecting additional drug categories and combinations of categories.

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: BROWN, J
BOOKING NO.: 008
DR #: XV-1

ARRESTEE'S NAME (LAST, FIRST, MI): ADAMS, FRANCES A. | AGE: 37 | SEX: F | RACE: W.
ARRESTING OFFICER (NAME, SERIAL #, DIV.): HOHN, R. #2345 VTD

DATE EXAMINED/TIME/LOCATION: AUG 6, 1996 2230 4TH & 51ST
BREATH RESULTS: ☐ Refused Results 0.00 Instrument # 1234
CHEMICAL TEST: ☐ Urine ☑ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN: ☑ Yes ☐ No — Given by: R. HOHN
What have you eaten today? HAMBURGER — When? NOON
What have you been drinking? How much? WATER
Time of last drink? N/A

Time now? 930PM
When did you last sleep? How long? LAST NIGHT 5 HRS
Are you sick or injured? ☐ Yes ☑ No
Are you diabetic or epileptic? ☐ Yes ☑ No
Do you take insulin? ☐ Yes ☑ No
Do you have any physical defects? ☐ Yes ☑ No
Are you under the care of a doctor/dentist? ☐ Yes ☑ No
Are you taking any medication or drugs? ☐ Yes ☑ No

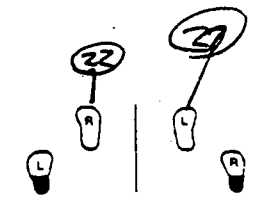
ATTITUDE: COOPERATIVE
COORDINATION: POOR STUMBLES STAGGERS
SPEECH: SLOW, SLURRED, THICK TONGUED
BREATH: NORMAL
FACE: NORMAL

CORRECTIVE LENS: ☑ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☑ Normal ☐ Bloodshot ☐ Watery
Blindness: ☑ None ☐ L. Eye ☐ R. Eye
Tracking: ☑ Equal ☐ Unequal
PUPIL SIZE: ☑ Equal ☐ Unequal (explain)
HGN Present: ☑ Yes ☐ No
Able to follow stimulus: ☑ Yes ☐ No
Eyelids: ☐ Normal ☑ Droopy

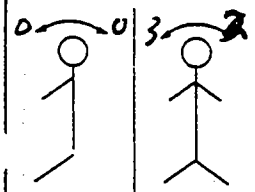
PULSE & TIME	HGN	Left Eye	Right Eye
1. 60, 2235	Lack of Smooth Pursuit	YES	YES
2. 56, 2252	Max. Deviation	YES	YES
3. 60, 2301	Angle of Onset	35°	35°

Vertical Nystagmus? ☐ Yes ☑ No
Convergence: Right Eye ← Left Eye →

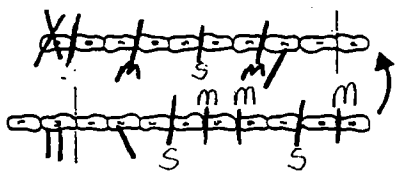
ONE LEG STAND



BALANCE EYES CLOSED



WALK AND TURN TEST



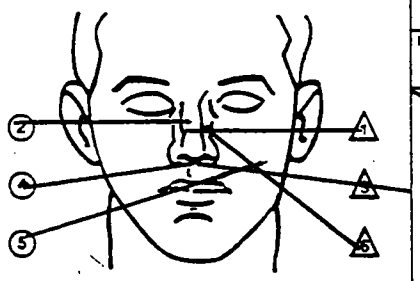
Cannot keep balance: VV
Starts too soon:

	1st Nine	2nd Nine
Stops Walking	VV	V
Misses Heal-Toe	VVV	VV
Steps off Line	V	V
Raises Arms	VVV	VV
Actual Steps Taken	9	8

L R
☑ ☑ Sways while balancing.
☑ ☑ Uses arms to balance.
☐ ☐ Hopping.
☑ ☑ Puts foot down.

INTERNAL CLOCK: 55 Estimated as 30 sec.
Describe Turn: TURNED BACKWARDS
Cannot do Test (explain): N/A
Type of Footwear: HIGH HEELS (BOOTS)

○ Right △ Left
Draw lines to spots touched



PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	4.0	6.0	5.0	3.0
Right Eye	4.0	6.0	5.0	3.0

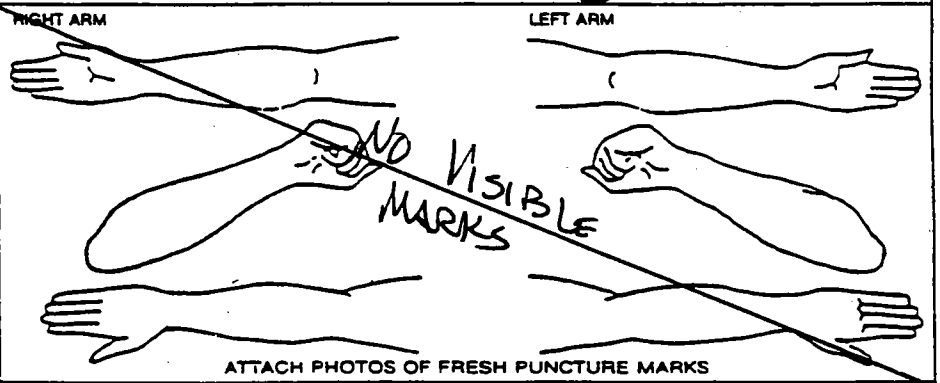
NASAL AREA: CLEAR
ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ☑ No
REBOUND DILATION: ☐ Yes ☑ No
Reaction to Light: SLOW

BLOOD PRESSURE: 104, 64
TEMP: 97.6°

MUSCLE TONE: ☐ Near Normal ☑ Flaccid ☐ Rigid
Comments: VERY LOOSE RELAXED

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

What medicine or drug have you been using? NONE
How much? REFUSED
Time of use? REFUSED
Where were the drugs used? (Location) REFUSED

DATE/TIME OF ARREST: AUG 6, 1996 2150
TIME DRE NOTIFIED: 2200
EVAL START TIME: 2230
TIME COMPLETED: 2310

CONTROL #:
EXAMINING OFFICER: J BROWN
SERIAL NO: 9999
DIVISION: VTD
UNAVAILABLE DATES:
REVIEWED BY: FELTNER, C

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Officer Jim Brown	ARRESTEE: Frances A. Adams (f)

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: DRE examination room 4th District, Arizona Department Public Safety

2. WITNESS: Arresting Officer - Sgt. R. Hohn # 2345 Arizona Department of Public Safety

3. BREATH TEST: Writer administered GCI breath test to Adams, the result was 0.00%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER:

5. INITIAL OBSERVATIONS: Writer observed subject seated next to the breath test instrument, her head was tilted forward, her eyes were closed, her breathing was deep but slow. She responded slowly to my questions and her speech was slow and slurred.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS:

8. CLINICAL INDICATORS:

9. SIGNS of INGESTION: None were evident

10. STATEMENTS: Subject stated that she was very sleepy, and denied taking any medicine or drugs.

11. OPINION of EVALUATOR: In my opinion Frances A. Adams is under the influence of Depressant and unable to operate a vehicle safely

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS:

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: JOHN, C
BOOKING NO.: 009
DR.: XV-2

ARRESTEE'S NAME (LAST, FIRST, MI): BAKER, SAM B.
AGE: 28 | SEX: M | RACE: B
ARRESTING OFFICER (NAME, SERIAL #, DIV.): TOWER, T.W., #3210 CTD
DATE EXAMINED/TIME/LOCATION: July 19, 1996 2230 3RD DIST
BREATH RESULTS: ☐ Refused Results .010 Instrument # 1234
CHEMICAL TEST: ☐ Urine ☑ Blood ☐ Both Tests Refused
MIRANDA WARNING GIVEN: ☑ Yes ☐ No Given by: TOWER, T.W.
What have you eaten today? When? MILKSHAKE 3 HRS AGO
What have you been drinking? How much? NOTHING
Time of last drink? N/A
Time now? ABOUT 8.30
When did you last sleep? How long? THIS MORNING 2 HRS
Are you sick or injured? ☐ Yes ☑ No
Are you diabetic or epileptic? ☐ Yes ☑ No
Do you take insulin? ☐ Yes ☑ No
Do you have any physical defects? ☐ Yes ☑ No
Are you under the care of a doctor/dentist? ☐ Yes ☑ No
Are you taking any medication or drugs? ☐ Yes ☑ No
ATTITUDE: COOPERATIVE
COORDINATION: POOR STUMBLING
SPEECH: RAPID
BREATH: RANCID
FACE: NORMAL / SWEATY
CORRECTIVE LENS: ☑ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☑ Normal ☐ Bloodshot ☐ Watery
Blindness: ☑ None ☐ L. Eye ☐ R. Eye
Tracking: ☑ Equal ☐ Unequal
PUPIL SIZE: ☑ Equal ☐ Unequal (explain)
HGN Present: ☐ Yes ☑ No
Able to follow stimulus: ☑ Yes ☐ No
Eyelids: ☑ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 108 / 2235	Lack of Smooth Pursuit	NO	NO
2. 112 / 2246	Max. Deviation	NO	NO
3. 100 / 2253	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☑ No
Convergence: Right Eye / Left Eye

ONE LEG STAND: COUNTED TO 1040 IN 30 SECONDS

BALANCE EYES CLOSED: 3 / 3 | 0 / 0

WALK AND TURN TEST: WALKED RAPIDLY

	1st Nine	2nd Nine
Cannot keep balance		
Starts too soon		
Stops Walking	✓	
Misses Heal-Toe		
Steps off Line		
Raises Arms	VVV	VVV
Actual Steps Taken	9	9

L
☑ ☑ Sways while balancing.
☑ ☑ Uses arms to balance.
☐ ☐ Hopping.
☐ ☑ Puts foot down.

INTERNAL CLOCK: 15 "Estimated as 30 sec.
Describe Turn: AS INSTRUCTED
Cannot do Test (explain): N/A
Type of Footwear: LOAFERS

○ Right △ Left
Draw lines to spots touched

PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	6.5	8.0	7.5	6.0
Right Eye	6.5	8.0	7.5	6.0

NASAL AREA: REDNESS RUNNY NOSE
ORAL CAVITY: CLEAR
HIPPUS: ☐ Yes ☑ No
REBOUND DILATION: ☐ Yes ☑ No
Reaction to Light: SLOW

BLOOD PRESSURE: 142 / 102
TEMP: 99.7 °
MUSCLE TONE: ☑ Near Normal ☐ Flaccid ☐ Rigid
Comments:

RIGHT ARM / LEFT ARM
NO VISIBLE MARKS
ATTACH PHOTOS OF FRESH PUNCTURE MARKS

What medicine or drug have you been using? How much? NONE
Time of use? NO ANSWER
Where were the drugs used? (Location) NO ANSWER

DATE/TIME OF ARREST: July 19, 1996 2150
TIME DRE NOTIFIED: 2200
EVAL START TIME: 2230
TIME COMPLETED: 2310

CONTROL #
EXAMINING OFFICER: Clark John
SERIAL NO: 8888
DIVISION: CTD
UNAVAILABLE DATES
REVIEWED BY: HANCOCK, A.

DRUG INFLUENCE EVALUATION Page 2 of 2

LOG NO.	DRE: Sgt. Clark John	ARRESTEE: Sam B. Baker

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: DRE Examination room 3rd District Capitol PD

2. WITNESS: Arresting Officer - Sgt. T. W. Tower # 3210 Capitol PD and Sgt. Toby Dyas, Tempe Police Department

3. BREATH TEST: Writer observed Sgt. T. W. Tower administer a breath test to Baker, the result was 0.00%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER:

5. INITIAL OBSERVATIONS: Writer observed subject standing next to the breath test instrument . He repeatedly shifted his weight from foot to foot, and scratched his face and head. He was perspiring heavily, and appeared nervous, anxious and jittery

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS:

8. CLINICAL INDICATORS:

9. SIGNS of INGESTION: Reddened nasal area.

10. STATEMENTS: Subject denied taking any medicine or drugs.

11. OPINION of EVALUATOR: In my opinion Sam B. Baker is under the influence of Stimulant and unable to operate a vehicle safely

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS:

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: HAYES, M.

BOOKING NO.: 010 | DR.: XV-3

ARRESTEE'S NAME (LAST, FIRST, MI): CHARLES, MARY C | AGE: 17 | SEX: F | RACE: W

ARRESTING OFFICER (NAME, SERIAL #, DIV.): SHERMAN, S. #5083 WPD

DATE EXAMINED/TIME/LOCATION: MAR 17, 1996 0045 CENTRAL TESTING

BREATH RESULTS: ☐ Refused Results 0.09 Instrument # 1234

CHEMICAL TEST: ☐ Urine ■ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN: ■ Yes ☐ No Given by: SHERMAN, S.

What have you eaten today? When? PIZZA LAST NIGHT

What have you been drinking? How much? JUST A COUPLE BEERS

Time of last drink? 9 PM

Time now? 11:30 PM | When did you last sleep? How long? LAST NIGHT 7 HRS

Are you sick or injured? ☐ Yes ■ No

Are you diabetic or epileptic? ☐ Yes ■ No

Do you take insulin? ☐ Yes ■ No

Do you have any physical defects? ☐ Yes ■ No

Are you under the care of a doctor/dentist? ☐ Yes ■ No

Are you taking any medication or drugs? ■ Yes ☐ No: BIRTH CONTROL PILLS

ATTITUDE: COOPERATIVE

COORDINATION: POOR STAGGERING

SPEECH: SLURRED

BREATH: MODERATE ODOR of ALCOHOLIC BEVERAGE

FACE: FLUSHED

CORRECTIVE LENS: ■ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft

Eyes: ☐ Normal ■ Bloodshot ■ Watery

Blindness: ■ None ☐ L. Eye ☐ R. Eye

Tracking: ■ Equal ☐ Unequal

PUPIL SIZE: ■ Equal ☐ Unequal (explain)

HGN Present: ■ Yes ☐ No

Able to follow stimulus: ■ Yes ☐ No

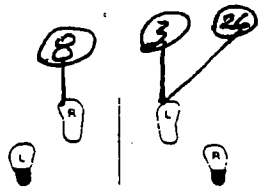
Eyelids: ☐ Normal ■ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 68 / 0050	Lack of Smooth Pursuit	YES	YES
2. 64 / 0105	Max. Deviation	YES	YES
3. 72 / 0117	Angle of Onset	40°	40°

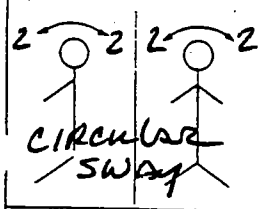
Vertical Nystagmus? ☐ Yes ■ No

Convergence: Right Eye → Left Eye ✓

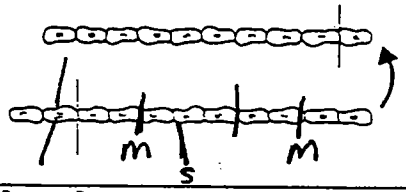
ONE LEG STAND



BALANCE EYES CLOSED



WALK AND TURN TEST: APPEARED "RUBBER LEGGED"



	1st Nine	2nd Nine
Cannot keep balance	VV	
Starts too soon		
Stops Walking	✓	
Misses Heal-Toe	VV	
Steps off Line	✓	
Raises Arms	CONSTANT	CONSTANT
Actual Steps Taken	9	9

☐ L ☐ R Sways while balancing.

☐ ☐ Uses arms to balance.

☐ ☐ Hopping.

☐ ☐ Puts foot down.

INTERNAL CLOCK: 40 Estimated as 30 sec.

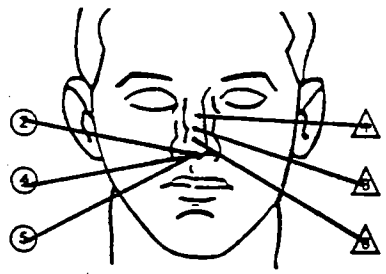
Describe Turn: LOST BALANCE + STAGGERED

Cannot do Test (explain): N/A

Type of Footwear: TENNIS SHOES

○ Right △ Left

Draw lines to spots touched



PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	4.5	6.5	5.5	3.5
Right Eye	4.5	6.5	5.5	3.5

NASAL AREA: CLEAR

ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ■ No

REBOUND DILATION: ☐ Yes ■ No

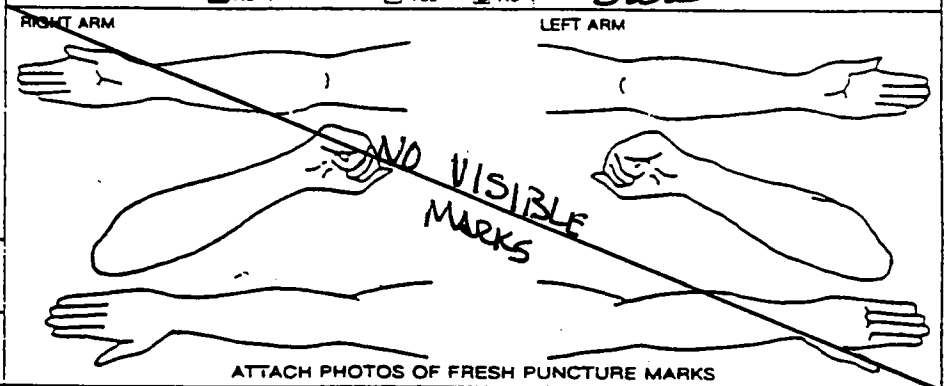
Reaction to Light: SLOW

BLOOD PRESSURE: 110 / 76 TEMP: 98.0°

MUSCLE TONE: ☐ Near Normal ■ Flaccid ☐ Rigid

Comments:

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

What medicine or drug have you been using? How much? NONE JUST MY PILL NO ANSWER

Time of use? NO ANSWER

Where were the drugs used? (Location) NO ANSWER

DATE/TIME OF ARREST	TIME ORE NOTIFIED	EVAL START TIME	TIME COMPLETED
MAR 17, 1996 0010	0025	0045	0125

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	Michael Hayes	7700	TCS		FAQUETTE, D.

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Sgt. Michael Hayes	ARRESTEE: Mary C. Charles

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: DRE Examination room 4 th District Washington State Patrol

2. WITNESS: Arresting Officer - S. Shermann # 5083 Washington State Patrol and Sandy Richardson, NHTSA

3. BREATH TEST: Writer observed Officer Shermann administer a breath test to Charles, the result was 0.09%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER:

5. INITIAL OBSERVATIONS: Writer observed subject in the holding area of central booking, she was staggering and stumbling, she swayed and repeatedly blinked her eyes and her speech was very slurred

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS:

8. CLINICAL INDICATORS:

9. SIGNS of INGESTION: Subject had an odor of alcoholic beverage on her breath.

10. STATEMENTS: Subject admitted she had been drinking. However, she denied taking any medicine or using any drugs other than birth control pills.

11. OPINION of EVALUATOR: In my opinion Mary C. Charles is under the influence of Depressants and unable to operate a vehicle safely

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS:

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: TIDWELL, JERRY
BOOKING NO.: 011
DR.: XV-4

ARRESTEE'S NAME (LAST, FIRST, MI): DODGE, FRED D.
AGE: 36 | SEX: M | RACE: W
ARRESTING OFFICER (NAME, SERIAL #, DIV.): LAIRD, C.D. #7654 HTD

DATE EXAMINED/TIME/LOCATION: FEB 22, 1997 2300 STOCKTON PD
BREATH RESULTS: ☐ Refused Results 0.00 Instrument # 1234
CHEMICAL TEST: ☐ Urine ■ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN: ■ Yes ☐ No — Given by: LAIRD, C.D.
What have you eaten today? When? 2 TACOS 2-3 HRS AGO
What have you been drinking? How much? NOTHING
Time of last drink? N/A

Time now? 11 O'CLOCK
When did you last sleep? How long? YESTERDAY or Day Before 5HRS
Are you sick or injured? ☐ Yes ■ No
Are you diabetic or epileptic? ☐ Yes ■ No
Do you take insulin? ☐ Yes ■ No
Do you have any physical defects? ☐ Yes ■ No
Are you under the care of a doctor/dentist? ☐ Yes ■ No
Are you taking any medication or drugs? ☐ Yes ■ No

ATTITUDE: CAREFREE, COOPERATIVE
COORDINATION: POOR JITTERY STUMBLING
SPEECH: RAPID
BREATH: NORMAL
FACE: NORMAL

CORRECTIVE LENS: ■ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ■ Normal ☐ Bloodshot ☐ Watery
Blindness: ■ None ☐ L. Eye ☐ R. Eye
Tracking: ■ Equal ☐ Unequal
PUPIL SIZE: ■ Equal ☐ Unequal (explain)
HGN Present: ☐ Yes ■ No
Able to follow stimulus: ■ Yes ☐ No
Eyelids: ■ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 100 / 2305	Lack of Smooth Pursuit	NO	NO
2. 104 / 2316	Max. Deviation	NO	NO
3. 100 / 2326	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ■ No
Convergence: Right Eye → Left Eye ✓

ONE LEG STAND: (5) R L L R

BALANCE EYES CLOSED: 0 0 2 2

WALK AND TURN TEST: WALKED VERY RAPIDLY

	1st Nine	2nd Nine
Cannot keep balance		
Starts too soon	VV	
Stops Walking	✓	
Misses Heal-Toe		
Steps off Line		
Raises Arms	VV	VV
Actual Steps Taken		

L R
☐ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☐ ☐ Puts foot down.

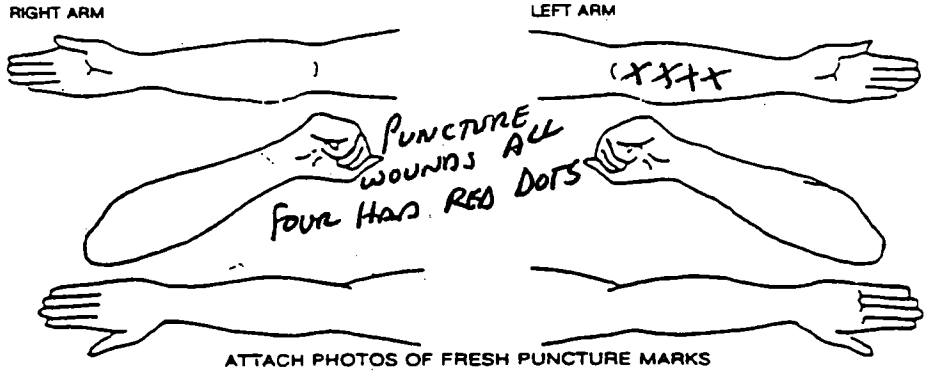
INTERNAL CLOCK: 15 Estimated as 30 sec.
Describe Turn: AS INSTRUCTED
Cannot do Test (explain): N/A
Type of Footwear: STREET SHOES

○ Right △ Left
Draw lines to spots touched

PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	5.5	8.5	7.5	5.5
Right Eye	5.5	8.5	7.5	5.5

NASAL AREA: REDNESS
ORAL CAVITY: CLEAR
HIPPUS: ☐ Yes ■ No
REBOUND DILATION: ☐ Yes ■ No
Reaction to Light: SLOW

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 140 / 96
TEMP: 99.5°
MUSCLE TONE: ■ Near Normal ☐ Flaccid ☐ Rigid
Comments:

What medicine or drug have you been using? How much? NONE NO ANSWER
Time of use? NO ANSWER
Where were the drugs used? (Location) NO ANSWER

DATE/TIME OF ARREST: FEB 22, 1997 2215
TIME DRE NOTIFIED: 2245
EVAL START TIME: 2300
TIME COMPLETED: 2330

CONTROL #:
EXAMINING OFFICER: Jerry Tidwell
SERIAL NO: 1177
DIVISION: HTD
UNAVAILABLE DATES:
REVIEWED BY: CONRAD, M.

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Lt. Jerry Tidwell	ARRESTEE: Fred D. Dodge

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: DRE Examination room 5th District HTD

2. WITNESS: Arresting Officer - C. D. Laird # 7654 HTD

3. BREATH TEST: Officer Laird administer a breath test to Fred Dodge, the result was 0.00%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER:

5. INITIAL OBSERVATIONS: Writer observed subject at 2255 hrs. In the breathalyzer room. He was smiling and joking with officer Laird. Dodge's speech was rapid and loud. He seemed boisterous and unconcerned about being under arrest.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS:

8. CLINICAL INDICATORS:

9. SIGNS of INGESTION: Subject had four (4) fresh puncture wounds on the underside of his left forearm.

10. STATEMENTS: Subject denied taking any medicine or using any drugs. When questioned about the punsture marks he grinned and stated "Gee, I guess those must be mosquito bites", then laughed.

11. OPINION of EVALUATOR: In my opinion Fred D. Dodge is under the influence of Stimulant and unable to operate a vehicle safely

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS:

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: UNSWORTH, J.
BOOKING NO.: 012
DR.: XV-5

ARRESTEE'S NAME (LAST, FIRST, MI)	AGE	SEX	RACE	ARRESTING OFFICER (NAME, SERIAL #, DIV.)
EDWARDS, JOAN E	33	F	W	HALL, I #2456 CRD

DATE EXAMINED/TIME/LOCATION: APRIL 1, 1996 2300 CRD
BREATH RESULTS: ☐ Refused; Results 0.00; Instrument # 1234
CHEMICAL TEST: ☐ Urine ☒ Blood ☐ Both Tests Refused

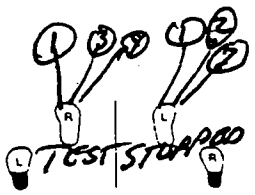
MIRANDA WARNING GIVEN: ☒ Yes ☐ No; Given by: HALL, I
What have you eaten today? When? NOTHING N/A
What have you been drinking? How much? NOTHING
Time of last drink? N/A
Time now? I DON'T KNOW
When did you last sleep? How long? I DON'T REMEMBER
Are you sick or injured? ☒ Yes ☐ No — I FEEL SICK TO MY STOMACH
Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No
Do you have any physical defects? ☐ Yes ☒ No — I DON'T THINK SO
Are you under the care of a doctor/dentist? ☐ Yes ☒ No
Are you taking any medication or drugs? ☐ Yes ☒ No

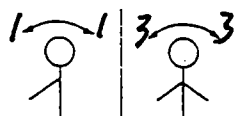
ATTITUDE: DAZED BUT COOPERATIVE
COORDINATION: POOR DISORIENTED STAGGERING
SPEECH: DIFFICULTY IN SPEAKING AT TIMES
BREATH: NORMAL
FACE: SWEATY, DAZED APPEARANCE

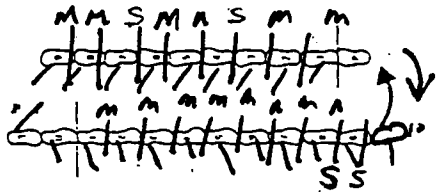
CORRECTIVE LENS: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☒ Normal ☐ Bloodshot ☐ Watery
Blindness: ☒ None ☐ L. Eye ☐ R. Eye
Tracking: ☒ Equal ☐ Unequal
PUPIL SIZE: ☒ Equal ☐ Unequal (explain)
HGN Present: ☐ Yes ☒ No
Able to follow stimulus: ☒ Yes ☐ No
Eyelids: ☒ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 100, 2310	Lack of Smooth Pursuit	NO	NO
2. 108, 2325	Max. Deviation	NO	NO
3. 104, 2337	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☒ No
Convergence: Right Eye Left Eye

ONE LEG STAND


BALANCE EYES CLOSED

TOLD TO OPEN EYES AT 90 SEC

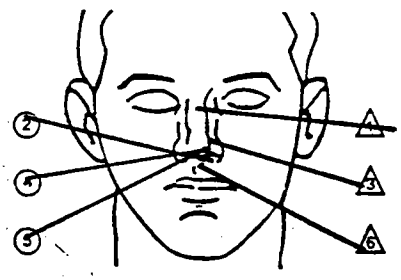
WALK AND TURN TEST


Cannot keep balance: VV
Starts too soon:

	1st Nine	2nd Nine
Stops Walking	VVV	VV
Misses Heal-Toe	VVVVVVVVV	VVVVV
Steps off Line	ALL STEPS	
Raises Arms	VVV	VVV
Actual Steps Taken	10	9

☐ L ☐ R Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☐ ☐ Puts foot down.

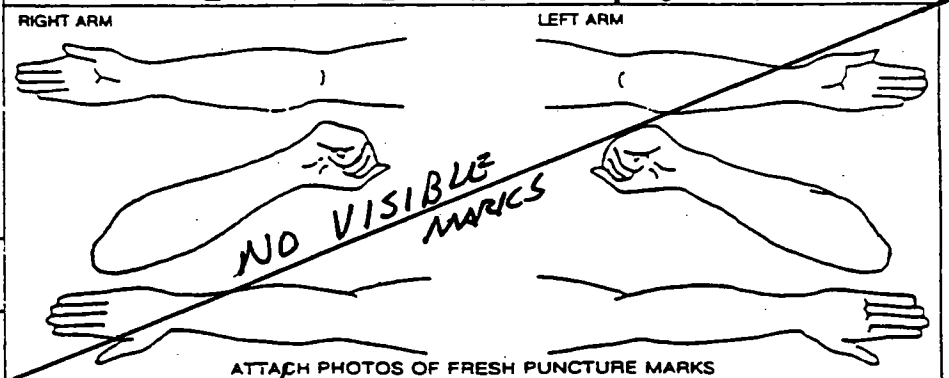
INTERNAL CLOCK: 90 Estimated as 30 sec.
Describe Turn: TURNED BACKWARDS
Cannot do Test (explain): KEPT STOPPING TO ASK WHAT TO DO NEXT
Type of Footwear: SANDALS

○ Right △ Left
Draw lines to spots touched


PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	6.0	8.5	8.0	6.0
Right Eye	6.0	8.5	8.0	6.0

NASAL AREA: CLEAR
ORAL CAVITY: CLEAR
HIPPUS: ☐ Yes ☒ No
REBOUND DILATION: ☐ Yes ☒ No
Reaction to Light: NORMAL

BLOOD PRESSURE: 150, 110
TEMP: 100.0 °
MUSCLE TONE: ☐ Near Normal ☐ Flaccid ☒ Rigid
Comments: ARMS VERY RIGID

RIGHT ARM / LEFT ARM


ATTACH PHOTOS OF FRESH PUNCTURE MARKS

What medicine or drug have you been using? NOTHING
How much? NO ANSWER
Time of use? NO ANSWER
Where were the drugs used? (Location) NO ANSWER

DATE/TIME OF ARREST: APR 1, 1996 2235
TIME DRE NOTIFIED: 2245
EVAL START TIME: 2300
TIME COMPLETED: 2345

CONTROL #:
EXAMINING OFFICER: J. Unsworth
SERIAL NO: 5406
DIVISION: CRD
UNAVAILABLE DATES:
REVIEWED BY: Kling J.

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Officer J. Unsworth	ARRESTEE: Joan E. Edwards

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: DRE Examination room 5th District CTD

2. WITNESS: Arresting Officer - Ian Hall # 3456 CTD

3. BREATH TEST: Officer Hall administer a breath test to Joan E. Edwards, the result was 0.00%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by Officer Hall at 2255 hrs. Officer Hall stated he had just arrested a "very weird" woman. He further stated "she's either on drugs or crazy." Her vehicle was stopped in the intersection of Studdard Ave. and Haversat Dr., she was standing on the hood of her car waving her arms and screaming incoherently at passing traffic.

5. INITIAL OBSERVATIONS:

6. MEDICAL PROBLEMS: Subject stated indicated some nausea.

7. PSYCHOPHYSICAL TESTS:

8. CLINICAL INDICATORS:

9. SIGNS of INGESTION: None were evident.

10. STATEMENTS: Subject denied taking any medicine or using any drugs.

11. OPINION of EVALUATOR: In my opinion Joan E. Edwards is under the influence of Hallucinogen and unable to operate a vehicle safely

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS: Subject was transported to the psychiatric ward, at the county jail, for continued monitoring.

SESSION XVI

PHENCYCLIDINE (PCP)

SESSION XVI PHENCYCLIDINE (PCP)

Upon successfully completing this session, the participants will be able to:

- Explain a brief history of PCP.
- Identify common drug names and terms associated with PCP.
- Identify common methods of administration for PCP.
- Explain the symptoms, observable signs and other effects associated with PCP.
- Explain the typical time parameters, i.e., onset and duration of effects, associated with PCP.
- State the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of PCP.
- Correctly answer the "topics for study" questions at the end of this Section.

A. Overview of PCP

The formal chemical name for this drug is Phenyl Cyclohexyl Piperidine, from which the initials PCP are derived. "Phencyclidine" is simply a contracted form of the actual chemical name.

PCP, or Phencyclidine forms a distinct category of its own, because the effects it produces are unlike those of any other category. In some respects, PCP acts like an hallucinogen; and, it is frequently classed as an hallucinogen in medical texts and scientific/research reports. In other respects, it acts like a stimulant, and in still other respects it is similar to a depressant.

PCP was first developed in the 1950's as an intravenous anesthetic. It was patented and marketed in 1963 under the trade name Sernyl. Within a few years, as evidence of PCP's very undesirable side effects accumulated, its use as an anesthetic for humans was discontinued. In 1968, it was re-patented as a veterinary anesthetic under the trade name Sernylan.

Although we speak of PCP as forming a separate category of drugs all by itself, there actually are more than one hundred slightly different drugs that belong to this category. These drugs are the analogs of PCP. In this case, an analog is a chemical that is similar to the drug in terms of molecular structure or psychoactive effects. A person under the influence of PCP likewise cannot be distinguished from someone who is under the influence of a PCP analog. When a DRE concludes that a suspect is impaired by Phencyclidine, his or her report should state that "...the subject is under the influence of PCP or an analog of PCP".

Another drug in this category is Ketamine, a drug used as an anesthetic in pediatric surgery and burn victims. Not all laboratories that perform blood and urine analyses are capable of detecting all of the known analogs of PCP; in fact, some of the analogs can be detected by few if any laboratories. Thus, a DRE should not be surprised if a negative or none detected toxicological report comes back for a suspect the DRE believed was impaired by Phencyclidine. It is possible that the suspect had used an analog that the particular lab couldn't detect.

Among PCP's least desirable side effects are delirium, visual disturbances and hallucinations and, occasionally, violence. Some evidence of long term memory disorders and psychological disturbances resembling schizophrenia has also been linked to PCP.

PCP is relatively easy to manufacture, using readily available chemicals. The formula for producing PCP has been widely publicized. However, although easy to make, it is also dangerous to make. A lack of caution in the production process could release the same deadly gas that is used for executions in gas chambers. Also, liquid PCP is especially dangerous because it can be absorbed through the skin.

PCP has numerous "street names". The chart at the bottom of the page lists some of the more common "street names" for PCP.

Many PCP users ingest their drugs by smoking. PCP can be applied in either liquid or powder form to a variety of vegetable or leafy substances, such as mint leaves, parsley, oregano, tobacco or marijuana. The substances then can be smoked in a pipe or cigarette. Because PCP smoke is very hot and can irritate the mouth and tongue, many smokers prefer to use mint leaves and similar material to cool the smoke. For the same reason, PCP smokers who adulterate commercial cigarettes prefer to use mentholated brands, such as "Kools" and "Shermans".

Powdered PCP can also be snorted or taken orally. Liquid PCP can be injected, or administered directly to the eyes, via an eyedropper. PCP can also be ingested transdermally, i.e., through the skin.

B. Possible Effects of PCP

PCP produces impairments and other observable effects on the human mind and body that are a combination of effects produced by depressants, stimulants and hallucinogens.

SOME COMMON STREET NAMES FOR PCP

ACE	CRYSTAL	MONKEY DUST	ELEPHANT TRANQUILIZER
AMOEBA	KRYSTAL	GREEN	HORSE TRANQUILIZER
TRANK	CRYSTAL JOINT	GREEN LEAVES	ANIMAL TRANQUILIZER
JET FUEL	KJ (or CJ)	KOOLS	SUPER WEED
JUICE	EMBALMING FLUID	SUPER KOOLS	ZOMBIE WEED
DUST	TIC TAC	SHERMS	PEACE WEED
ANGEL DUST	PEACE	SUPER GRASS	MINT WEED
DEVIL DUST	PAZ	KILLER WEED	LOVELY

As with many other drugs, regular users of PCP may have developed a tolerance to the drug that masks some of the observable signs of PCP's effects.

PCP has been called a "dissociative anesthetic". That is to say, it cuts off the brain's perceptions of the senses. PCP users often feel that their heads are physically separated from their bodies. They sometimes report feeling that they are dead, and that their heads are floating away.

C. Onset and Duration of PCP's Effects

When smoked or injected, PCP's effects generally are felt within 1-5 minutes. When snorted, the onset occurs in about 2-3 minutes. The effects reach their peak in about 15-30 minutes. The effects generally last 4-6 hours, but they can last somewhat longer.

D. Signs and Symptoms of PCP Overdose

One possible result of PCP overdose is bizarre, violent and self destructive behavior. The following are extreme, but not unique, examples:

- One young man methodically pulled out his own teeth, with a pair of pliers.
- Another drank rat poison, hoping to kill the rats that he imagined were infesting his body.
- A third suffered hallucinations of unbelievably grotesque monsters, and gouged out his own eyes to avoid seeing the monsters.
- A 26 year old nude woman in Washington, DC repeatedly plunged a butcher knife into her own eye, chest, groin and abdomen. She then threatened a police officer with the knife and was shot to death. (Washington Post, March 7, 1988)

PCP can also produce extreme physical, as well as psychological distress:

- A deep coma, lasting for up to 12 hours.
- Seizures and convulsions.
- Respiratory depression.
- Possible cardiac problems.

E. Expected Results of the Evaluation

When a person under the influence of PCP is examined by a drug recognition expert, the following results can be expected.

Horizontal Gaze Nystagmus will be present, generally with a very early angle of onset.

Vertical Nystagmus will usually be present.

Lack of Convergence will be present.

Pupil size will be normal.

Pupil's reaction to light will be normal.

Pulse rate will be up.

Blood pressure will be up.

Temperature will be up. It is not uncommon for persons under the influence of PCP to remove most or all of their clothing in an effort to cool down.

Injection sites usually won't be found, although some PCP users do inject the drug.

General Indicators

- Slow, slurred speech
- Disorientation
- Loss of memory
- Agitation, excitement
- Blank stare
- Passivity -- but the user may abruptly turn violent if confronted with a threatening situation.
- Non-communicative
- Rigid Muscle Tone
- Loss of a sense of personal identity
- Sensory distortions
- Auditory hallucinations
- A feeling of extreme heat, profuse perspiration.
- Increased pain threshold.

Topics for study

1. What was the original purpose for which PCP was first patented and marketed?

2. Why do many PCP smokers prefer to adulterate mentholated cigarettes with PCP?

3. What is Ketamine?

4. What does the term "dissociative anesthetic" mean?

5. "Phencyclidine" is a contraction of what three words?

P
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Electo

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: GEORGE, MARK
BOOKING NO: 013
DR#: XVI-1

ARRESTEE'S NAME (LAST, FIRST, MI)	AGE	SEX	RACE	ARRESTING OFFICER (NAME, SERIAL #, DIV.)
ROSS, ROBERT H	22	M	H	BROWN, B. #1832 NYSP

DATE EXAMINED/TIME/LOCATION	BREATH RESULTS	CHEMICAL TEST
DEC 8, 1996 2145 4TH DIST	☐ Refused Results 0.00 Instrument # 1234	☐ Urine ☒ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
☒ Yes ☐ No Given by BROWN A	FRIED CHICKEN	6AM	NOTHING	N/A

Time now?	When did you last sleep? How long?	Are you sick or injured?	Are you diabetic or epileptic?
8 o'clock	YESTERDAY 6HRS	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor/dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

Are you taking any medication or drugs?	ATTITUDE	COORDINATION
☐ Yes ☒ No	PASSIVE BUT COOPERATIVE	POOR STAGGERING

SPEECH	BREATH	FACE
SLURRED, SLOW + LOW	CHEMICAL ODOR	FLUSHED + SWEATY

CORRECTIVE LENS:	Eyes:	Blindness:	Tracking:
☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	☒ Normal ☐ Bloodshot ☐ Watery	☒ None ☐ L. Eye ☐ R. Eye	☒ Equal ☐ Unequal

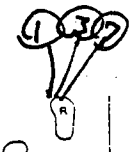
PUPIL SIZE:	HGN Present:	Able to follow stimulus:	Eyelids:
☒ Equal ☐ Unequal (explain)	☒ Yes ☐ No	☒ Yes ☐ No	☒ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 100 / 2150	Lack of Smooth Pursuit	YES	YES
2. 108 / 2204	Max. Deviation	YES	YES
3. 100 / 2217	Angle of Onset	IMMEDIATE	IMMEDIATE

Vertical Nystagmus? ☒ Yes ☐ No

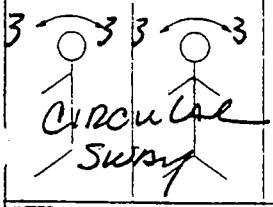
Convergence: Right Eye → Left Eye G

ONE LEG STAND

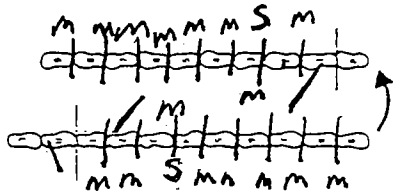


L: TOE STOPPED FOOT DOWN 3 TIMES
R: TEST STOPPED

BALANCE EYES CLOSED



WALK AND TURN TEST

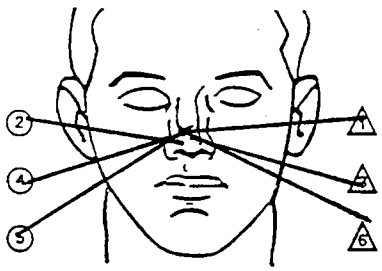


	1st Nine	2nd Nine
Cannot keep balance	✓	
Starts too soon	✓	
Stops Walking	✓	✓
Misses Heal-Toe	ALL STOPS	ALL STOPS
Steps off Line	✓	✓
Raises Arms	✓✓✓	✓✓
Actual Steps Taken		

☒ ☒ Sways while balancing.
☒ ☒ Uses arms to balance.
☐ ☐ Hopping.
☒ ☐ Puts foot down.

INTERNAL CLOCK:	Describe Turn	Cannot do Test (explain)	Type of Footwear
45 Estimated as 30 sec.	SWIVELED IN ONE ABRUPT MOTION LOST BALANCE	N/A	TENNIS SHOES

○ Right △ Left
Draw lines to spots touched

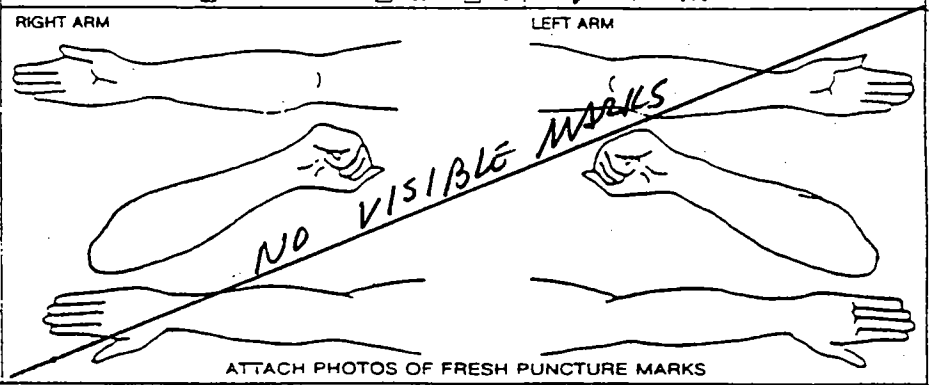


PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	4.0	6.0	5.5	3.5
Right Eye	4.0	6.0	5.5	3.5

NASAL AREA: CLEAR
ORAL CAVITY: CHEMICAL ODOR ON BREATH

HIPPUS	REBOUND DILATION	Reaction to Light
☐ Yes ☒ No	☐ Yes ☒ No	NORMAL

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE	TEMP
146 / 100	99.8 °

MUSCLE TONE: ☐ Near Normal ☐ Flaccid ☒ Rigid
Comments: ARMS VERY RIGID

What medicine or drug have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
NOTHING	NO ANSWER	NO ANSWER	NO ANSWER

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
DEC 8, 1996 2100	2120	2145	2220

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	Mark George	7654	GRD		HOFF, M

DRUG INFLUENCE EVALUATION Page 2 of 2

LOG NO.	DRE: Sgt. Mark George	ARRESTEE: Robert H. Ross

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Robert H. Ross, took place in the DRE room, NYSP Tarrytown

2. WITNESS: Arresting Officer - Trooper Alan D. Brown

3. BREATH TEST: Troper Brown administer a breath test to Ross at 2135 hours, the result was 0.00%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio at 2120 hrs. and advised to return to the station to conduct a DRE evaluation. Tpr. Brown informed me that he had observed Ross driving S/B in the median of the NYS Thruway, at approximately 10 mph. Brown stated that the subject appeared dazed and could not state where he was or where he had come from.

5. INITIAL OBSERVATIONS: Writer observed subject at 2140 hrs. He appeared dazed and disoriented, he had a fixed stare and responded very slowly (approx. 5 - 10 seconds delay) to all my questions and instructions.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" in a circular motioin and estimated 45 seconds as 30 seconds. Walk and Turn: Subject started walking immediately, lost balance during the instructions, stepped off the line, stopped walking, repeatedly used his arms for balance, and missed heel to toe One Leg Stand: Subject unable to complete the test using either foot. Finger to Nose: Subject missed tip of his nose on each attempt and his arm movements were very rigid.

8. CLINICAL INDICATORS: Subject exhibited immediate onset of HGN, vertical nystagmus, and lack of convergence. Blood pressure, pulse and body temperature were above the normal range

9. SIGNS of INGESTION: There was a strong chemical odor on the subject's breath.

10. STATEMENTS: Subject stated that he did not use any drugs.

11. OPINION of EVALUATOR: In my opinion Robert H. Ross is under the influence of Phencyclidine, or an analog, and unable to operate a vehicle safely

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS: Three (3) discolored filtered cigarettes in a "Kool" box were found in the subject's right shirt pocket, and were sent to the laboratory for analysis.

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: BLEA, JOHN
BOOKING NO: 014
DR: XVI-2

ARRESTEE'S NAME (LAST, FIRST, MI): MAYER, ROBIN C
AGE: 22 | SEX: F | RACE: W
ARRESTING OFFICER (NAME, SERIAL #, DIV.): JOHNSON, C #9541 DPD

DATE EXAMINED/TIME/LOCATION: MAY 2, 1996 2300 CENTRAL TESTING
BREATH RESULTS: Results 0.04 ☐ Refused Instrument # 1234
CHEMICAL TEST: ☐ Urine ☑ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN: ☑ Yes ☐ No
Given by: JOHNSON C
What have you eaten today? When? PIZZA 5PM
What have you been drinking? How much? 1 BEER
Time of last drink? 5PM

Time now? 8PM
When did you last sleep? How long? LAST NIGHT 6 HRS
Are you sick or injured? ☐ Yes ☑ No
Are you diabetic or epileptic? ☐ Yes ☑ No

Do you take insulin? ☐ Yes ☑ No
Do you have any physical defects? NO RESPONSE ☐ Yes ☐ No
Are you under the care of a doctor/dentist? NO RESPONSE ☐ Yes ☐ No

Are you taking any medication or drugs? ☐ Yes ☑ No
ATTITUDE: WITHDRAWN NONE RESPONSIVE PASSIVE
COORDINATION: POOR STUMBLING STAGGERING

SPEECH: SLOW, SLURRED, AT TIMES DID NOT RESPOND
BREATH: CHEMICAL ODOR
FACE: SWEATY & FLUSHED

CORRECTIVE LENS: ☑ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☑ Normal ☐ Bloodshot ☐ Watery
Blindness: ☑ None ☐ L Eye ☐ R Eye
Tracking: ☑ Equal ☐ Unequal

PUPIL SIZE: ☑ Equal ☐ Unequal (explain)
HGN Present: ☑ Yes ☐ No
Able to follow stimulus: ☑ Yes ☐ No
Eyelids: ☑ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 120 / 2310	Lack of Smooth Pursuit	YES	YES
2. 116 / 2326	Max. Deviation	YES	YES
3. 104 / 2338	Angle of Onset	IMMEDIATE	IMMEDIATE

Vertical Nystagmus? VERY DISTINCT ☑ Yes ☐ No
Convergence: Right Eye Left Eye

ONE LEG STAND: NOT GIVEN

BALANCE EYES CLOSED: CIRCULAR SWAY

WALK AND TURN TEST: WALKING STIFF LEGGED ARMS LOCKED

Cannot keep balance: VV
Starts too soon:

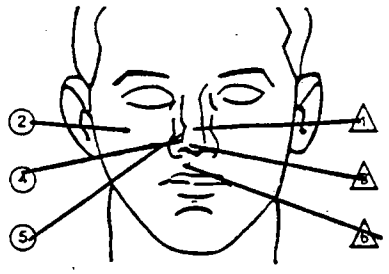
	1st Nine	2nd Nine
Stops Walking		
Misses Heal-Toe		ALL STOP
Steps off Line		
Raises Arms	CONSTANT	VV
Actual Steps Taken	10	12

SUBJECT FELL TEST STOPPED

☑ L ☐ R Sways while balancing.
☐ Uses arms to balance.
☐ Hopping.
☑ Puts foot down.

INTERNAL CLOCK: 40 Estimated as 30 sec.
Describe Turn: SWIVELED ABRUPTLY STAGGERED TO THE LEFT
Cannot do Test (explain): N/A
Type of Footwear: LOAFERS

○ Right △ Left
Draw lines to spots touched

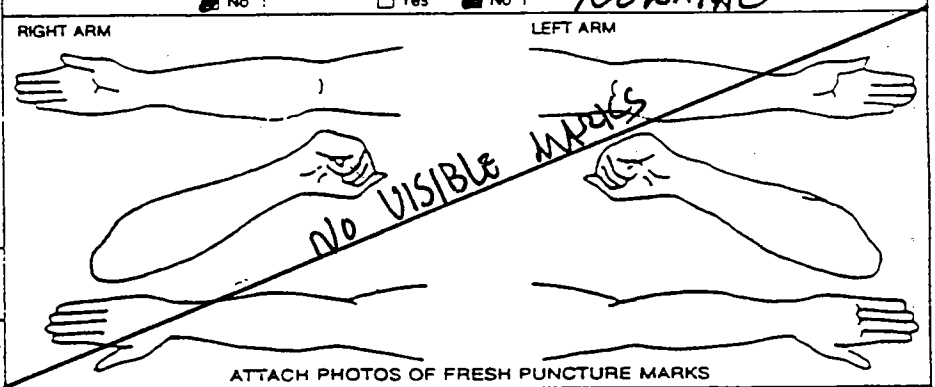


PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	4.0	6.5	6.0	3.5
Right Eye	4.0	6.5	6.0	3.5

NASAL AREA: CLEAR
ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ☑ No
REBOUND DILATION: ☐ Yes ☑ No
Reaction to Light: NORMAL

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 150 / 104
TEMP: 100.5 °

MUSCLE TONE: ☐ Near Normal ☐ Flaccid ☑ Rigid
Comments: ARMS & NECK VERY RIGID

What medicine or drug have you been using? How much? NO RESPONSE
Time of use? NO RESPONSE
Where were the drugs used? (Location) NO RESPONSE

DATE/TIME OF ARREST: MAY 2, 1996 2240
TIME DRE NOTIFIED: 2245
EVAL START TIME: 2300
TIME COMPLETED: 2345

CONTROL #:
EXAMINING OFFICER: John Blea
SERIAL NO: 7672
DIVISION: DPD
UNAVAILABLE DATES:
REVIEWED BY: GEORGE, M.

DRUG INFLUENCE EVALUATION Page 2 of 2

LOG NO.	DRE: Officer John Blea	ARRESTEE: Robin C. Mayer

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Robin C. Mayer, took place in the DRE room, Denver PD Headquarters

2. WITNESS: Arresting Officer - Officer Cliff Johnson

3. BREATH TEST: Officer Johnson administered a breath test to Mayer at 2300 hours, the result was 0.04%. At this time subject admitted she had consumed some beer.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio at 2245 hrs. and advised to return to Headquarters to conduct a DRE evaluation. Officer Johnson informed me that he had observed the subject fail to obey a stop sign. At the time of the stop Mayer was smoking a cigarette which gave off a strong chemical odor. Additional examination of the cigarette indicated the possibility of some form of string in the middle.

5. INITIAL OBSERVATIONS: Writer observed subject sitting quietly in the DRE room, staring at the floor, and taking no notice of the activity around her. It was necessary to instruct the subject twice to raise her head before she complied.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Ms. Mayer was very slow in responding to all instructions during this portion of the examination. Romberg Balance: Subject swayed approximately 3" in a circular motioin and estimated 40 seconds as 30 seconds. Walk and Turn: Subject lost balance during the instructions, took the wrong number of steps, turned abruptly, stepped off the line, and repeatedly used her arms for balance. On the return she never touched heel to toe and simply took 12 "normal" steps. Her legs seemed very stiff and rigid. One Leg Stand: Subject fell after only three (3) seconds. Finger to Nose: Subject missed tip of her nose on each attempt and on one attempt missed her nose entirely.

8. CLINICAL INDICATORS: Subject exhibited immediate onset of HGN, vertical nystagmus, and lack of convergence. Blood pressure, pulse and body temperature were above the normal range.

9. SIGNS of INGESTION: There was a strong chemical odor on the subject's breath.

10. STATEMENTS: Subject stated that she had drank "one (1) beer" She did not respond to the questions regarding drug use or questions concerning the cigarette.

11. OPINION of EVALUATOR: In my opinion Robin C. Mayer is under the influence of Phencyclidine, or an analog, and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS: The confiscated cigarette was sent to the laboratory for analysis.

convergence

SESSION XVII

NARCOTIC ANALGESICS

SESSION XVII NARCOTIC ANALGESICS

Upon successfully completing this session, the participants will be able to:

- Explain a brief history of the Narcotic Analgesic category of drugs.
- Identify common drug names and terms associated with the category.
- Identify common methods of administration for this category.
- Explain the symptoms, observable signs and other effects associated with this category.
- Explain the typical time parameters, i.e., onset and duration of effects, associated with this category.
- State the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of this category of drugs.
- Explain the procedures to examine for injection sites.
- Correctly answer the "Topics for Study" questions at the end of the section.

A. Overview of Narcotic Analgesics

There are two subcategories of Narcotic Analgesics. The first subcategory consists of the Opiates. The second subcategory are the Synthetics.

The Opiates are drugs that either contain or are derived from opium. There are two basic types of opiates, alkaloids and derivatives. An "alkaloid" is a substance that is found in another substance, and can be isolated from it. For example, Morphine, Codeine and Thebaine are all found in opium and are natural alkaloids. Opium Derivatives are produced by chemically treating the natural alkaloid. Heroin is probably the most famous Opium Derivative, but there are a number of other important drugs that are produced in this manner. The source for both the Natural Alkaloids and the Opium Derivatives is a particular species of poppy plant, called the "opium poppy", or papaver somniferum (Latin for "the poppy that brings sleep"). Opium is the sap from the seed pods of that plant.

The second subcategory of Narcotic Analgesics has nothing to do with the opium poppy. This subcategory consists of the Synthetics, which are produced artificially from a variety of non-opiate substances. One of the best known of these is Methadone, a drug used as a substitute for Heroin in drug treatment programs. The synthetics do not derive from opium at all, but have similar or identical effects.

All narcotic analgesics share three distinguishing characteristics:

- they will relieve pain (this is what "analgesic" means);
- they will produce withdrawal signs and symptoms, when the drug is stopped after chronic administration;
- their use will suppress the withdrawal signs and symptoms of chronic morphine administration. (This means that the various narcotic analgesics can be substituted for each other to relieve withdrawal symptoms.)

1. The chart on the next page exhibits the names of some Natural Alkaloids and Opium Derivatives and shows their derivation from opium.

Powdered opium, also known as "smoking opium", is not really a derivative, but rather is a simple refinement of raw opium. (In much the same sense, "refined sugar" is still sugar.) Powdered opium is used medically to treat diarrhea. As a medicine, it is taken orally. As a drug of abuse, it is smoked. It remains popular as a drug of abuse among some Asian American communities.

Morphine is the principal Natural Alkaloid of opium. It was first isolated from opium in 1805. Morphine is used medically to suppress severe pain, for example, with terminal cancer patients. It is highly addictive.

Codeine is another Natural Alkaloid of opium, separate from morphine. Codeine was first isolated in 1832. It is used medically to suppress coughing or minor pain. Although codeine is an analgesic, its pain killing ability is much weaker than morphine's. Codeine definitely is addictive. NOTE: the technical, or generic, name for codeine is Methylmorphine.

Heroin is an Opium Derivative that is produced by chemically treating Morphine. Heroin is the most commonly abused illicit narcotic analgesic. Heroin was first produced in 1874, in the hope that it would prove to be a non addictive substitute for morphine. Heroin was approved for general use by the American Medical Association in 1906. However, its importation and manufacture have been illegal in this country since 1925. NOTE: The technical, or generic, name for heroin is Diacetyl Morphine.

Dilaudid is another Opium Derivative that also is produced from Morphine. Dilaudid sometimes is called "drug store heroin", because it is commercially available. It is used medically for short term relief of moderate to severe pain, and to suppress severe, persistent coughs. Dilaudid has the same addictive liabilities as does heroin or morphine. NOTE: The technical, or generic, name for Dilaudid is Hydromorphone Hydrochloride.

Hycodan is an Opium Derivative that "descends" from the Natural Alkaloid, Codeine. The technical name for Hycodan is Hydrocodone. It is used medically to treat coughs. Sometimes Hycodan is abused by addicts who are unable to obtain heroin or morphine.

Percodan is another Opium Derivative that is produced by chemically treating Codeine. The technical name for Percodan is Oxycodone. Percodan is one of the most commonly prescribed narcotic analgesics. It is somewhat less addictive than morphine, but more addictive than codeine. Another prescriptive drug, called "percobarb" is a combination of Percodan and barbiturate. Thus, someone who takes percobarb is a polydrug user, and will experience a combination of the effects of narcotic analgesics and CNS depressants.

Metopon derives from thebaine, which is another Natural Alkaloid of opium. Metopon is chemically similar to morphine, and is used to relieve chronic pain (such as terminal cancer).

2. Some common synthetic opiates include the following.

Demerol is one of the most widely used synthetic opiates for relief of pain and for sedation. It was first produced in 1939. The technical name for Demerol is Meperidine. Demerol is the most frequently abused narcotic analgesic among the medical profession.

Methadone was developed in Germany during World War II. Methadone's effects are similar to morphine's, although methadone's effects develop more slowly and last longer. Methadone was developed because of wartime shortages in Germany of morphine. The primary advantage of Methadone is that it cannot be injected, and it has a much longer duration of effects than Heroin. Also, methadone's withdrawal symptoms are slower and milder than are morphine's. It is for these reasons that methadone is used extensively in "maintenance programs" as a substitute for heroin for addicts undergoing treatment. The technical name is Dolophine.

Numorphan is a powerful analgesic with the same addictive properties as morphine. It is used medically for relief of chronic pain. It is sold in ampules (injection) and in suppositories.

The Fentanyls include several hundred "designer drug" analogs of morphine. "Sublimaze" is a brand name for fentanyl. It is a Schedule II drug. It is frequently found in overdose situations. For example, "Tango and Cash" and "Goodfellas," which contained fentanyl, were sold in New York City in 1990 as Heroin. Many fatal overdoses occurred as a result. Fentanyls were first developed in 1965. The principal abused fentanyl is "three-methyl fentanyl". This analog is very powerful, and can be fatal in very small amounts.

MPPP is an illegally manufactured analog of Demerol. MPPP is powerfully addictive, and thus is very dangerous in its own right. What makes it even more dangerous is the fact that the "home chemists" who produce it often make a mistake that causes the MPPP to become contaminated with a substance called MPTP, a chemical that produces a paralysis similar to Parkinson's Disease.

Darvon is a synthetic opiate of relatively low analgesic potency, and relatively low addiction liability. Technical Name is Propoxyphene. It is fairly commonly prescribed.

3. Methods of administration vary from one narcotic analgesic to another. Methods of ingestion include: oral, smoking, injection, snorted, suppositories and transdermally. An example is Heroin which can be injected, snorted or smoked.

B. Possible Effects of Narcotic Analgesics

However, the effects that a narcotic analgesic user will experience and exhibit depend on the tolerance that the user has developed for the drug. As a person develops tolerance for a drug, that person will experience diminishing effects if they continues to take the same dose of the drug. Conversely, if the person wishes to continue to experience the same effects, he or she will have to take steadily larger doses as tolerance develops.

People develop tolerance to narcotic analgesics fairly rapidly. A narcotic analgesic user who has developed tolerance and who has taken his or her "normal" dose of the drug may exhibit little or no evidence of intellectual or physical impairment. For example, an heroin addict who has injected his or her usual dose may be able to operate a car properly and perform flawlessly on field sobriety tests.

The clinical and physical effects of narcotic analgesics usually are evident with new users, or with tolerant users who have taken more than their "normal" doses.

One of the most easily observable effects is a condition known as "on the nod". This is a semiconscious type of sleep, brought about by the sedative action of the drug. When a user is "on the nod", their eyelids will become very droopy (ptosis), and the head will slump forward until the chin rests on the chest. But the user usually can be awakened easily and be sufficiently alert to respond to questions.

C. Onset and Duration of Effects of Narcotic Analgesics

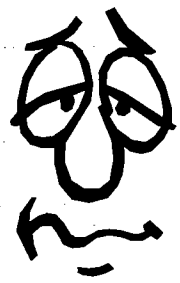
Heroin users generally experience certain psychological effects immediately after injection. These include a feeling of pleasure or euphoria; relief from withdrawal symptoms; and, relief from pain. Physical effects, if they are evident at all, typically will become evident after 5-30 minutes. But remember: physical effects may not be evident if the user is tolerant and has taken a normal dose. With new users, the physical effects include:

- o "on the nod"
- o poor motor coordination
- o depressed reflexes
- o slow breathing

The physical effects usually will be observable for up to 3-6 hours with new users.

As the physical effects begin to disappear, withdrawal signs and symptoms start to emerge. These withdrawal signs can become very severe, if the user does not take another dose. However, it is important to keep in mind that when withdrawal signs are evident, the individual is no longer under the influence of the drug.

Withdrawal symptoms usually begin to be felt within 4-6 hours. The addict experiences chills, aches of the muscles and joints, nausea and insomnia.



Outward signs of withdrawal typically start to be observable within 8-12 hours. The addict sweats and has goose bumps on the skin. Reflexes become hyperactive. The addict yawns, may vomit, their nose becomes runny and the eyes tear. At this point, the withdrawal signs and symptoms closely resemble those of the common cold or the 'flu. The withdrawal signs and symptoms intensify from 14-24 hours, and may be accompanied by gooseflesh, slight tremors, loss of appetite and dilation of the pupils.

Approximately 24-36 hours since the last "fix", the addict experiences insomnia, vomiting, diarrhea, weakness, depression and hot/cold flashes. Withdrawal signs and symptoms generally reach their peak after 2-3 days. At this point, the addict usually experiences muscular and abdominal cramps, elevated temperature and severe tremors and twitching. This twitching, especially of the legs, is referred to in the expression "kicking the habit". The addict is very nauseated at this time, may gag and vomit repeatedly, and may lose 10-15 pounds within 24 hours.

D. Signs And Symptoms of Narcotic Analgesic Overdose

Narcotic analgesics depress respiration. The user's breathing becomes slow and shallow, and death can occur from severe respiratory depression. The skin becomes clammy, and the overdosing user may experience convulsions, slip into a coma, lips turn blue, body become pale or blue and extremely constricted pupils (unless there is brain damage in which pupils may be dilated).

The danger of death from an overdose of narcotic analgesic is heightened by the fact that the addict may not know the strength of the drug that he or she is taking.

E. Expected Results of The Evaluation

When a person under the influence of a narcotic analgesic is examined by a drug recognition expert, the following results generally will be obtained.

Horizontal Gaze Nystagmus - none.

Vertical Nystagmus - none.

Lack of Convergence - none.

Pupil size - constricted.

Pupil's usually will exhibit little or no visible reaction to light.. Hippus may be present during withdrawal.

Pulse rate will be down.

Blood pressure will be lowered.

Temperature will be down.

Injection sites usually will be found, with heroin users. Injection sites may not be evident with users of other narcotic analgesics.

In general, the effects of narcotic analgesics include:

- slowed reflexes
- slow, low and raspy speech
- sluggish, "rubber-like" movements
- slowed breathing
- cold skin
- possible vomiting
- flaccid muscle tone
- "on the nod"
- "track marks"
- droopy eyelids (ptosis)
- facial itching
- dry mouth
- euphoria

F. Injection Site Examination

Examination of injection sites can reveal many clues about a users' drug habit. The sites can reveal if the user injects their drugs and if the use was current or in the recent past.

Drugs enter the body through three major tissues of the body - intramuscular, just under the skin (subcutaneous) or through a vein.

The primary instrument used to inject drugs is a hypodermic syringe. The syringe consists of a hollow needle, tube and a plunger. The inside diameter of the needle or gauge vary in size. The larger the gauge, the smaller the needle.

The user's equipment is commonly referred to as a "hype kit" or "works". The kit consists of a cooker, handle, matches or lighter and a tourniquet.

You will be asked in court to describe the difference between legal and illegal injection marks. A legal injection utilizes the muscle, usually is only mark and sterile needles are used. An illegal injection utilizes veins, will usually be multiple marks in various stages of healing and since the same needle is usually used over and over again the mark will have a barbed or jagged appearance.

A user will frequently use the same spot to inject the drugs to reduce the likelihood of detection. The veins may become hard and thick from continuous use, thus making it difficult to find the vein.

When a needle punctures the skin, a scab is formed. A scab develops within 18 - 24 hours after the puncture. After about 14 days a scab usually starts to peel, flake and fall off. The skin is shriveled and is lighter in color.

There is not exact science to classify the age of puncture sites. However, there are some general guidelines to follow. A ~~fresh~~ puncture site is defined as 0 - 12 hours and will be a red dot and have a oozing appearance. An early puncture site is 12 - 96 hours and will have a light scab, light bruise, reddened border and a crater appearance. A late puncture site is 5 - 14 days and will have a dark scab, dark bruise and the crater will flatten. A healing puncture site is over 14 days and the scab will be flaking and falling off with shriveled, light colored skin.

G. Expected Location of Injection Marks

Injection sites can be located anywhere on the users' body. The arms are the most frequently used place. The user may use the ankles, neck, feet or any place where a vein is accessible.

It is necessary to conduct a thorough methodical examination of the suspect's arms. Using a magnifying light examine the left inner arm as it is extended with the palm facing you. Then ask the suspect to contract the arm by grasping their shoulder (this forces the veins to protrude). Beginning at the wrist, examine the arm to the elbow. Examine the outer arm as it is extended palm facing down. Start the exam at the shoulder and move to the wrist. Ask the suspect to extend his or her fingers to examine the fingers. Pay particular attention to the areas between the fingers, under watches and rings. Repeat the examination for the right arm.

Ankles are the next most common injection site, especially the back. Extreme caution should be used when examining the shoes and socks for evidence because syringes and needles are commonly hidden there.

H. Conclusion

The examination may reveal evidence of recent use, however, just the presence of injection sites doesn't mean the person is under the influence or impaired.

A slow methodical examination utilizing a magnifying light is required to obtain evidence for court.

Conducting a thorough examination is a skill and requires practice to become proficient.

Topics for study

1. What are the two subcategories of Narcotic Analgesics?

2. What three distinguishing characteristics do all narcotic analgesics share?

3. Consider this situation:

   > A heroin addict injects what is, for him, a "normal" dose of the drug. One hour later a drug recognition expert examines the addict and finds that he is not impaired.

   What is the most likely explanation for this?

4. What is another, more common, name for the drug call Diacetyl Morphine?

5. What is Thebaine? What is Percobarb? What is MPPP? What is MPTP?

EVALUATOR: GAUNT, STEVEN

Page 1 of 2 **DRUG INFLUENCE EVALUATION**

BOOKING NO.: 015 | DR#: XVII-1

ARRESTEE'S NAME (LAST, FIRST, MI): VAUGHN, JERRY T | AGE: 44 | SEX: M | RACE: B | ARRESTING OFFICER (NAME, SERIAL #, DIV.): O'DELL, S. #7650 IPD

DATE EXAMINED/TIME/LOCATION: AUG 15, 1996 2120 3RD PCT | BREATH RESULTS: ☐ Refused, Results 0.00, Instrument # 1234 | CHEMICAL TEST: ☐ Both Tests Refused, ☐ Urine, ☒ Blood

MIRANDA WARNING GIVEN: ☒ Yes ☐ No, Given by: O'DELL, S. | What have you eaten today? When? NOTHING N/A | What have you been drinking? How much? NOTHING | Time of last drink? N/A

Time now? MIDNIGHT | When did you last sleep? How long? TODAY 3HRS | Are you sick or injured? ☐ Yes ☒ No | Are you diabetic or epileptic? ☐ Yes ☒ No

Do you take insulin? ☐ Yes ☒ No | Do you have any physical defects? ☐ Yes ☒ No | Are you under the care of a doctor/dentist? ☐ Yes ☒ No

Are you taking any medication or drugs? ☐ Yes ☒ No | ATTITUDE: COOPERATIVE BUT SLEEPY | COORDINATION: VERY LOOSE STUMBLING

SPEECH: LOW & RASPY | BREATH: NORMAL | FACE: NORMAL

CORRECTIVE LENS: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft | Eyes: ☒ Normal ☐ Bloodshot ☐ Watery | Blindness: ☒ None ☐ L. Eye ☐ R. Eye | Tracking: ☒ Equal ☐ Unequal

PUPIL SIZE: ☒ Equal ☐ Unequal (explain) | HGN Present: ☐ Yes ☒ No | Able to follow stimulus: ☒ Yes ☐ No | Eyelids: VERY DROOPY ☐ Normal ☒ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 60 , 2125	Lack of Smooth Pursuit	NO	NO
2. 64 , 2140	Max. Deviation	NO	NO
3. 60 , 2153	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☒ No

Convergence: Right Eye ← Left Eye →

ONE LEG STAND: VERY SLOW REACH00 1018 IN 30 SEC

BALANCE EYES CLOSED: 0 → 0, 3 → 3

WALK AND TURN TEST: RUBBER LEGGED VERY SLOW DELIBERATE STEPS

Cannot keep balance ✓

Starts too soon

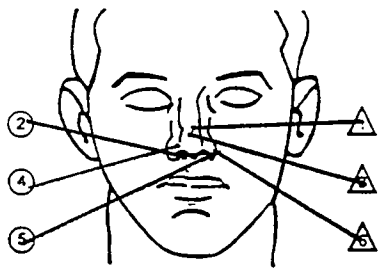
	1st Nine	2nd Nine
Stops Walking		
Misses Heal-Toe	VVV	VV
Steps off Line	V	
Raises Arms	VV	V
Actual Steps Taken	9	9

L R: ☐ ☐ Sways while balancing. ☒ ☒ Uses arms to balance. ☐ ☐ Hopping. ☐ ☐ Puts foot down.

INTERNAL CLOCK: 30 Estimated as 30 sec. | Describe Turn: AS INSTRUCTED | Cannot do Test (explain): N/A | Type of Footwear: STREET SHOES

○ Right △ Left

Draw lines to spots touched



PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	2.5	2.5	2.5	2.5
Right Eye	2.5	2.5	2.5	2.5

NASAL AREA: CLEAR | ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ☒ No | REBOUND DILATION: ☐ Yes ☒ No | Reaction to Light: LITTLE TO NONE VISIBLE

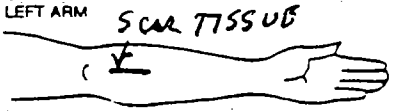
BLOOD PRESSURE: 110 , 64 | TEMP: 98.0 °

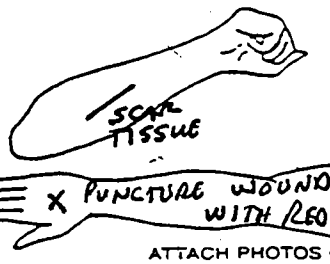
MUSCLE TONE: ☐ Near Normal ☒ Flaccid ☐ Rigid

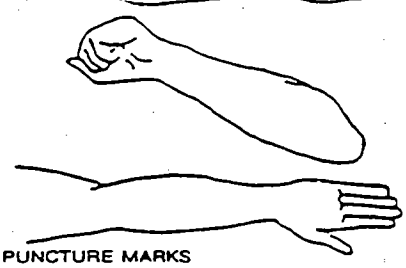
Comments:

RIGHT ARM

LEFT ARM: SCAR TISSUE







ATTACH PHOTOS OF FRESH PUNCTURE MARKS

What medicine or drug have you been using? How much? I WON'T ANSWER ANY | Time of use? QUESTIONS | Where were the drugs used? (Location) NO ANSWER

DATE/TIME OF ARREST: AUG 15 1996 2100 | TIME DRE NOTIFIED: 2110 | EVAL START TIME: 2120 | TIME COMPLETED: 2210

CONTROL #: | EXAMINING OFFICER: S.K. Gaunt | SERIAL NO: 2520 | DIVISION: IPD | UNAVAILABLE DATES: | REVIEWED BY: FLOEGEL, E

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Officer Steven Gaunt	ARRESTEE: Jerry T. Vaughn

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Jerry T. Vaughn, took place in the DRE room, 3rd Pct.

2. WITNESS: Arresting Officer - Trooper Stanely R. O'Dell

3. BREATH TEST: Trooper O'Dell administer a breath test to Vaughn at 2100 hours, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio and advised to return to the precinct to conduct a DRE evaluation. Tpr O'Dell informed me that he had observed the subject's vehicle weaving through the traffic lanes. Subject exhibited poor performance on the SFSTs, but there no odor of an alcoholic beverage.

5. INITIAL OBSERVATIONS: Writer observed subject sitting quietly in the DRE room. He appeared to be asleep; eyes were closed, head nodded forward, breathing was slow. Subject responded to questions and became more alert as time passed. His voice was low and raspy. He licked his lips repeatedly.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" side to side and estimated 50 seconds as 30 seconds. Walk and Turn: Subject lost balance during the instructions, missed heel to toe, stepped off the line, and used his arms for balance. One Leg Stand: Subject put his foot down swayed and used his arms for balance. Finger to Nose: Subject missed tip of his nose on each attempt.

8. CLINICAL INDICATORS: Subject's blood pressure was below the normal range. The pupils were constricted and showed little or no visible reaction to light. Subjects eyelids were droopy.

9. SIGNS of INGESTION: Subject had "track" type scars on both the left and right forearms, and a fresh oozing puncture wound on the back of the right hand.

10. STATEMENTS: Subject denied using any medicine or drugs and refused t\o answer any questions regarding the puncture wound on the back of his right hand.

11. OPINION of EVALUATOR: In my opinion Jerry T. Vaughn is under the influence of a Narcotic Analgesic and unable to operate a vehicle safely

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide both a urine and a blood sample.

13. MISCELLANEOUS:

EVALUATOR: TOLAND, STEVE

Page 1 of 2

DRUG INFLUENCE EVALUATION

BOOKING NO. 016 | DR. XVII - 2

ARRESTEE'S NAME (LAST, FIRST, MI)	AGE	SEX	RACE	ARRESTING OFFICER (NAME, SERIAL #, DIV.)
HOLDEN, WILLIAM J.	39	M	W	BRADLEY, T #4779 MPD

DATE EXAMINED/TIME/LOCATION	BREATH RESULTS	CHEMICAL TEST
NOV 1, 1996 1615 MESA PD	☐ Refused Results 0.00 Instrument # 1234	☐ Urine ☒ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN	What have you eaten today? When?	What have you been drinking? How much?	Time of last drink?
☒ Yes ☐ No Given by: T. BRADLEY	NOTHING N/A	NOTHING	N/A

Time now? When did you last sleep? How long?	Are you sick or injured?	Are you diabetic or epileptic?
DUNT KNOW LAST NIGHT FEWHRS	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor/dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

Are you taking any medication or drugs?	ATTITUDE	COORDINATION
☐ Yes ☒ No	COOPERATIVE	POOR SLOPPY STUMBLING

SPEECH	BREATH	FACE
SLOW + DELIBERATE	NORMAL	NORMAL

CORRECTIVE LENS	Eyes:	Blindness:	Tracking:
☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	☒ Normal ☐ Bloodshot ☐ Watery	☒ None ☐ L. Eye ☐ R. Eye	☒ Equal ☐ Unequal

PUPIL SIZE	HGN Present:	Able to follow stimulus:	Eyelids:
☒ Equal ☐ Unequal (explain)	☐ Yes ☒ No	☒ Yes ☐ No	☐ Normal ☒ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 60 / 1630	Lack of Smooth Pursuit	NO	NO
2. 56 / 1642	Max. Deviation	NO	NO
3. 60 / 1655	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☒ No

Convergence: Right Eye ✓ Left Eye ✓

ONE LEG STAND: 10 | 31 | 47

BALANCE EYES CLOSED: CIRCULAR SWAY

WALK AND TURN TEST: WALKED VERY SLOWLY

Cannot keep balance ✓

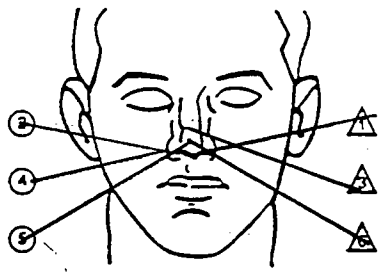
Starts too soon

	1st Nine	2nd Nine
Stops Walking	✓	✓
Misses Heal-Toe		
Steps off Line		
Raises Arms	✓	✓
Actual Steps Taken	9	9

L R
☒ ☒ Sways while balancing.
☒ ☒ Uses arms to balance.
☐ ☐ Hopping.
☒ ☒ Puts foot down.

INTERNAL CLOCK	Describe Turn	Cannot do Test (explain)	Type of Footwear
50 Estimated as 30 sec.	LOST BALANCE STAGGERED TO THE LEFT	N/A	LOAFERS

○ Right △ Left
Draw lines to spots touched



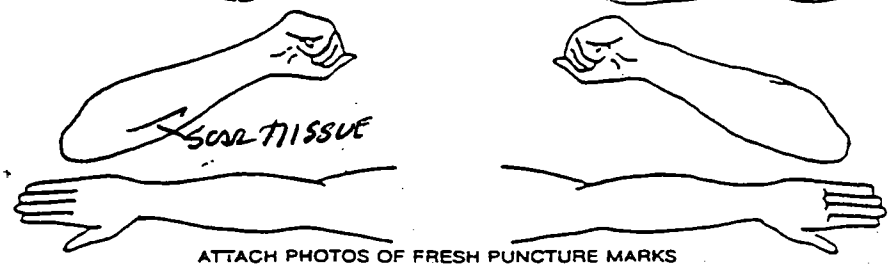
PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	1.5	1.5	1.5	1.5
Right Eye	1.5	1.5	1.5	1.5

NASAL AREA: CLEAR
ORAL CAVITY: CLEAR

HIPPUS ☐ Yes ☒ No | REBOUND DILATION ☐ Yes ☒ No | Reaction to Light: LITTLE TO NONE VISIBLE

RIGHT ARM: PHOTO ARM — PUNCTURE WOUNDS 3 RED DOTS — XXX

LEFT ARM: 4 PUNCTURE WOUNDS WITH SCABS — XXXX



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE	TEMP
100 / 60	97.0 °

MUSCLE TONE: ARMS & NECK
☐ Near Normal ☒ Flaccid ☐ Rigid
Comments: VERY RELAXED

What medicine or drug have you been using? How much?	Time of use?	Where were the drugs used? (Location)
NONE REFUSED	TO ANSWER	

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
NOV 1, 1996 1600	1605	1615	1710

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	S. Toland	3529	MPD		PRYOR M

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Sgt. Steve Toland	ARRESTEE: William J. Holden

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of William Holden was conducted at the Mesa PD holding facility

2. WITNESS: Arresting Officer - Officer T. Bradley #4779 MPD

3. BREATH TEST: Writer observed Officer Bradley administer a breath test to Holden, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio and advised to return to the holding facility to conduct a DRE evaluation. Officer Bradley informed me that the subject had been involved in a car crash at the intersection of Dobson and Main St. Subject exhibited poor performance on the SFSTs, but there was no odor of an alcoholic beverage.

5. INITIAL OBSERVATIONS: Writer observed subject sitting quietly in the DRE room. He was scratching his face and neck. His eyelids were droopy and his voice was raspy

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" in a circular motion and estimated 50 seconds as 30 seconds. Walk and Turn: Subject stepped out of position during the instructions, stopped walking and used his arms for balance. One Leg Stand: Subject put his foot down swayed and used his arms for balance. Finger to Nose: Subject missed tip of his nose four times.

8. CLINICAL INDICATORS: Subject's blood pressure, body temperature and one pulse were all below the normal range. The pupils were constricted and showed litle or no visible reaction to light. Subjects eyelids were droopy

9. SIGNS of INGESTION: Subject had three puncture wounds on the right forearm and four puncture wounds with scars on the left forearm

10. STATEMENTS: Subject invoked his Miranda Rights.

11. OPINION of EVALUATOR: In my opinion William J. Holden is under the influence of a Narcotic Analgesic and unable to operate a vehicle safely

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS:

EVALUATOR: TETZLAFF, G #726

Page 1 of 2

DRUG INFLUENCE EVALUATION

BOOKING NO.: 017 | DR.: XVII-3

ARRESTEE'S NAME (LAST, FIRST, MI)	AGE	SEX	RACE	ARRESTING OFFICER (NAME, SERIAL #, DIV.)
KURRUS, ROGER J.	40	M	W	HAGE, T. #752 T.C.S.

DATE EXAMINED/TIME/LOCATION: MAR 17 1996 2200 JAIL PARKER DIV

BREATH RESULTS: ☐ Refused — Results: 0.100 — Instrument #: 1234

CHEMICAL TEST: ☐ Both Tests Refused — ☐ Urine ☐ Blood

MIRANDA WARNING GIVEN: ☒ Yes ☐ No — Given by: G. TETZLAFF

What have you eaten today? When? I HAVEN'T EATEN FOR 6 HRS

What have you been drinking? How much? I DON'T DRINK

Time of last drink? N/A

Time now? ABOUT 8

When did you last sleep? How long? THIS MORNING 4 HRS

Are you sick or injured? ☐ Yes ☒ No

Are you diabetic or epileptic? ☐ Yes ☒ No

Do you take insulin? I DON'T TAKE ANYTHING ☐ Yes ☒ No

Do you have any physical defects? I'M THE PICTURE OF HEALTH ☐ Yes ☒ No

Are you under the care of a doctor/dentist? ☐ Yes ☒ No

Are you taking any medication or drugs? ☐ Yes ☒ No

ATTITUDE: SARCASTIC & SULLEN

COORDINATION: POOR STUMBLING — STAGGERING

SPEECH: LOW MUMBLED RASPY

BREATH: NORMAL

FACE: PALE

CORRECTIVE LENS: ☐ None REMOVED ☒ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft

Eyes: ☒ Normal ☐ Bloodshot ☐ Watery

Blindness: ☒ None ☐ L. Eye ☐ R. Eye

Tracking: ☒ Equal ☐ Unequal

PUPIL SIZE: ☒ Equal ☐ Unequal (explain)

HGN Present: ☐ Yes ☒ No

Able to follow stimulus: ☒ Yes ☐ No

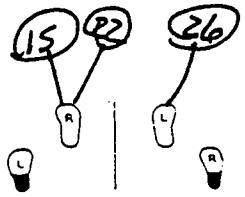
Eyelids: ☐ Normal ☒ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 60 / 2210	Lack of Smooth Pursuit	YES	YES
2. SB / 2221	Max. Deviation	NO	NO
3. SB / 2230	Angle of Onset	NONE	NONE

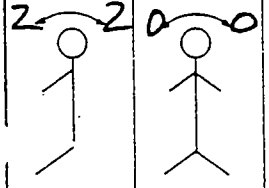
Vertical Nystagmus? ☐ Yes ☒ No

Convergence: Right Eye ✓ Left Eye ✓

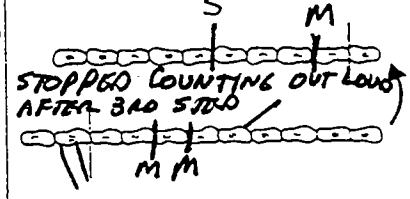
ONE LEG STAND



BALANCE EYES CLOSED



WALK AND TURN TEST



Cannot keep balance: VV

Starts too soon:

	1st Nine	2nd Nine
Stops Walking		✓
Misses Heal-Toe	VV	✓
Steps off Line	✓	
Raises Arms	✓	VV
Actual Steps Taken	9	9

L R
☒ ☒ Sways while balancing.
☒ ☒ Uses arms to balance.
☐ ☐ Hopping.
☒ ☒ Puts foot down.

INTERNAL CLOCK: 55 Estimated as 30 sec.

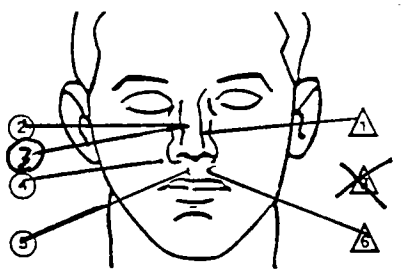
Describe Turn: AS INSTRUCTED BUT VERY SLOW

Cannot do Test (explain): N/A

Type of Footwear: WINGTIPS

○ Right △ Left

Draw lines to spots touched



PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	1.5	2.0	1.5	1.5
Right Eye	1.5	2.0	1.5	1.5

NASAL AREA: CLEAR

ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ☒ No

REBOUND DILATION: ☐ Yes ☒ No

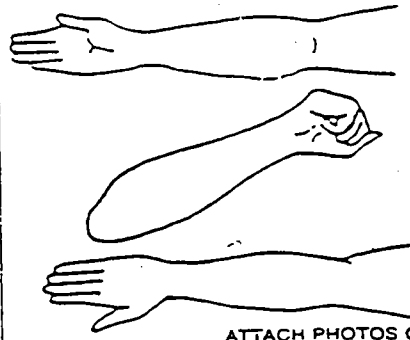
Reaction to Light: LITTLE TO NONE VISIBLE

BLOOD PRESSURE: 110 / 70 TEMP: 97.9 °

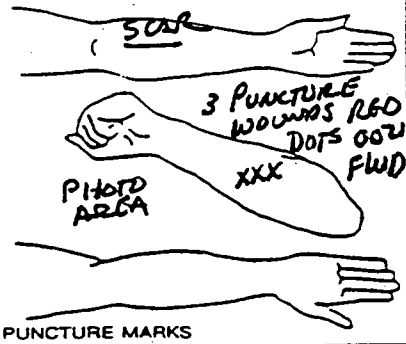
MUSCLE TONE: ☐ Near Normal ☒ Flaccid ☐ Rigid

Comments:

RIGHT ARM



LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

What medicine or drug have you been using? How much? "NOTHING DO I LOOK LIKE I DO DOPE" Time of use? I DIDN'T

Where were the drugs used? (Location) GO HAVE A HEART ATTACK

DATE/TIME OF ARREST: MAR 17, 1996 2130

TIME DRE NOTIFIED: 2140

EVAL START TIME: 2200

TIME COMPLETED: 2300

CONTROL #:

EXAMINING OFFICER: G. Tetzlaff

SERIAL NO: 726

DIVISION: TCS

UNAVAILABLE DATES:

REVIEWED BY: RICHARDSON, S.

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Sgt. Gary Tetzlaff	ARRESTEE: Roger J. Kurrus

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Roger J. Kurrus, took place in the DRE room, Jail Division, Parker Center

2. WITNESS: Arresting Officer - Sgt. Tom Page and Jack Oates NHTSA

3. BREATH TEST: Writer observed Sgt. Page administer breath test to Kurrus, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: At 2140 writer was contacted by Sgt. Page who requested a DRE evaluation. Sgt. Page informed me that he had observed subject driving westbound at 15 mph on Longlook Lane and the then failed to obey the stop sign at the intersection with Thunderhill Rd. Subject reacted slowly and stopped in the traffic lane approximately 800' past the point where the emergency lights had been activated. Subject appeared to be asleep and had his eyes closed and his chin on his chest.

5. INITIAL OBSERVATIONS: Writer observed subject at 2200 hrs. He was wearing a three piece business suit with no neck tie. Subject walked slowly, staggered and stumbled. He swayed constantly while standing still, and his head nodded forward repeatedly. Subject spoke slowly in a low raspy voice.

6. MEDICAL PROBLEMS: None noted or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 2" front to back and estimated 55 seconds as 30 seconds. Walk and Turn: Subject lost his balance during the instructions stepped off the line, missed heel to toe, and used his arms for balance. One Leg Stand: Subject swayed, raised his arms, and put his foot down. Finger to Nose: Subject missed tip of his nose on each attempt and used the wrong hand on the 3rd trial.

8. CLINICAL INDICATORS: Subject's pupils were constricted, systolic blood pressure was below the normal range. His pulse was below the normal range on two (2) occasions. His eyelids were droopy.

9. SIGNS of INGESTION: Subject's left arm had three (3) recent puncture wounds and a one inch "track mark" scar.

10. STATEMENTS: Subject stated that he did not used any drugs. Stated "Do I look like I do dope?" When asked about the recent puncture wounds, subject said "Go have a heart attack."

11. OPINION of EVALUATOR: In my opinion Roger J. Kurrus is under the influence of a Narcotic Analgesic, and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide both a urine sample and a blood sample.

13. MISCELLANEOUS: It appears that the subject is right handed.

SESSION XVIII

PRACTICE: TEST INTERPRETATION

SESSION XXVIII PRACTICE: TEST INTERPRETATION

Upon successfully completing this session, the participant will be able to:

- Analyze the results of a complete Drug Evaluation and Classification Examination and identify the category or categories of drugs affecting the individual examined.

- Articulate the bases for the drug category identification.

The purpose of this session is to give you practice in interpreting the results of the Drug Evaluation and Classification examination. During this session, you will be reviewing exemplars with the entire class and later in small groups. During your analysis of the exemplars, utilize all of the information available, including the preliminary examination, eye examinations, psychophysical tests, vital signs, dark room and other evidence. Remember to base your opinion on the totality of the information.

PCP

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: WARNER, WAYNE
BOOKING NO. 018
DR. XVIII - 1

ARRESTEE'S NAME (LAST, FIRST, MI)	AGE	SEX	RACE	ARRESTING OFFICER (NAME, SERIAL #, DIV.)
FOXX, JAMES F	30	M	W	WARNER, W. 2379 NYSP

DATE EXAMINED/TIME/LOCATION: 2/22/96 2330 TROOP T ALBANY
BREATH RESULTS: ☐ Refused Results .100 Instrument # 1234
CHEMICAL TEST: ☐ Both Tests Refused ☑ Urine ☐ Blood

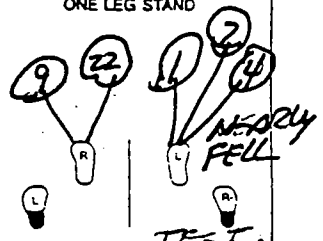
MIRANDA WARNING GIVEN: ☑ Yes ☐ No Given by: W. WARNER	What have you eaten today? When? NOTHING N/A	What have you been drinking? How much? NOTHING N/A	Time of last drink N/A
Time now? NO ANSWER	When did you last sleep? How long? NO ANSWER	Are you sick or injured? IT'S LATE ☐ Yes ☐ No	Are you diabetic or epileptic? NOT SICK ☐ Yes ☐ No
Do you take insulin? NOT SICK ☐ Yes ☐ No	Do you have any physical defects? NOT SICK ☐ Yes ☐ No	Are you under the care of a doctor/dentist? NO ANSWER ☐ Yes ☐ No	
Are you taking any medication or drugs? NOT SICK ☐ Yes ☐ No	ATTITUDE NON RESPONSIVE PASSIVE	COORDINATION POOR UNSTEADY STAGGERING	
SPEECH Slow Slurred	BREATH CHEMICAL ODOR	FACE BLANK STARE	

CORRECTIVE LENS: ☑ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☐ Normal ☑ Bloodshot ☐ Watery
Blindness: ☑ None ☐ L. Eye ☐ R. Eye
Tracking: ☑ Equal ☐ Unequal
PUPIL SIZE: ☑ Equal ☐ Unequal (explain)
HGN Present: ☑ Yes ☐ No
Able to follow stimulus: ☑ Yes ☐ No
Eyelids: ☑ Normal ☐ Droopy

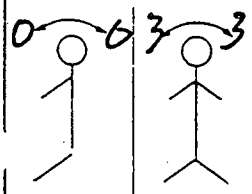
PULSE & TIME	HGN	Left Eye	Right Eye
1. 104 / 2340	Lack of Smooth Pursuit	YES	YES
2. 108 / 2356	Max. Deviation	YES	YES
3. 104 / 0010	Angle of Onset	30°	30°

Vertical Nystagmus? ☐ Yes ☐ No
Convergence: Right Eye ☑ Left Eye ☑

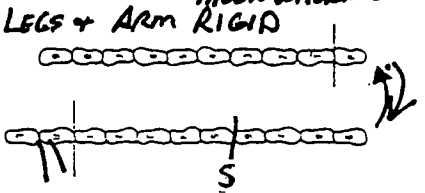
ONE LEG STAND



BALANCE EYES CLOSED



WALK AND TURN TEST "MOONWALKING"

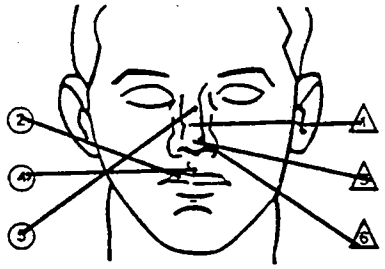


	1st Nine	2nd Nine
Cannot keep balance	✓	✓
Starts too soon		
Stops Walking	✓	
Misses Heal-Toe		
Steps off Line		
Raises Arms	✓✓✓	✓✓✓
Actual Steps Taken		

L R
☐ ☑ Sways while balancing.
☑ ☐ Uses arms to balance.
☐ ☐ Hopping.
☑ ☑ Puts foot down.

INTERNAL CLOCK: 30 Estimated as 30 sec.
Describe Turn: TURNED BACKWARDS STOPPED FOR 10 SEC AFTER TURN
Cannot do Test (explain): N/A
Type of Footwear: LOAFERS

○ Right △ Left
Draw lines to spots touched

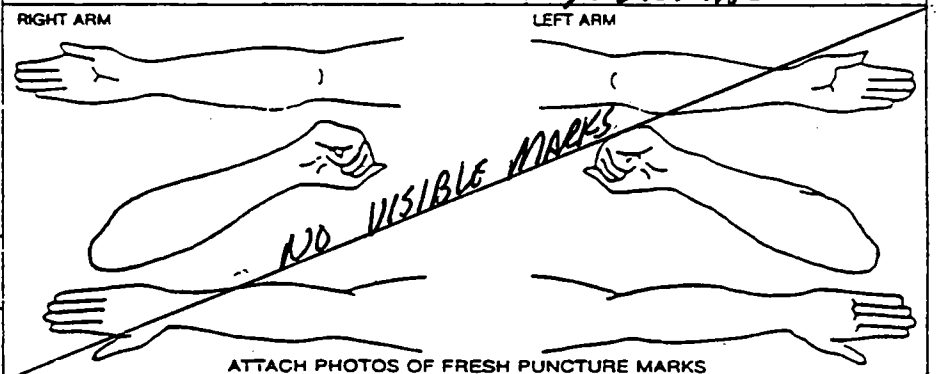


PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	4.5	6.0	5.5	4.0
Right Eye	4.5	6.0	5.5	4.0

NASAL AREA: CLEAR
ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ☑ No
REBOUND DILATION: ☐ Yes ☑ No
Reaction to Light: NORMAL

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 140 / 90 TEMP: 99.4 °

MUSCLE TONE: ☐ Near Normal ☐ Flaccid ☑ Rigid
Comments: ARMS + LEGS

What medicine or drug have you been using? How much?	Time of use?	Where were the drugs used? (Location)
NO ANSWER	NO ANSWER	NO ANSWER

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
2/22/96 2300	2300	2330	0015 2/23

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	W. Warner	2379	NYSP		Robt M.

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Trooper Wayne Warner	ARRESTEE: James F. Foxx

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of James F. Foxx, took place in the DRE room, SP Albany, Troop T.

2. WITNESS: Robyn Mayer (NHTSA) and Chuck Pelitier (IACP)

3. BREATH TEST: Writer administered breath test to Foxx, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was the arresting officer.

5. INITIAL OBSERVATIONS: Writer observed subject seated in the drivers position of a blue, 1996 Oldsmobile, NY registration "277 BRX". Vehicle was stationary in the Northbound lane of Hannover Ave., at the intersection with Hugenot St. The traffic light was green and the other vehicles had to pull out and around subject's vehicle.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" side to side. Walk and Turn: Subject lost his balance during the instructions, stopped walking, turned backwards. He paused for approximately ten (10) seconds after turning and exhibited muscle rigidity in his arms and legs throughout the test. One Leg Stand: Subject raised his arms, put his foot down, staggered and nearly fell at this point the test was stopped. Finger to Nose: Subject missed tip of his nose four times.

8. CLINICAL INDICATORS: Subject had HGN, Vertical Nystagmus and Lack of Convergence. His pulse was above the normal.

9. SIGNS of INGESTION: Subject's breath had a strong chemical odor.

10. STATEMENTS: Subject was very passive throughout the evaluation and was very slow at responding to questions. He repeatedly answered "not sick" to questions concerning the use of medication. He also failed to respond to a couple of the questions

11. OPINION of EVALUATOR: In my opinion James F. Foxx is under the influence of a PCP and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS:

MA

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: CLARK, KEN
BOOKING NO.: 019
DR.: XVIII - 2

ARRESTEE'S NAME (LAST, FIRST, MI): GROVES, ROBERT G
AGE: 27 | SEX: M | RACE: W
ARRESTING OFFICER (NAME, SERIAL #, DIV.): DELLAVECHIO, J. J. #172 VSP

DATE EXAMINED/TIME/LOCATION: AUG 15, 1996 0100 3RD PCT VBPD
BREATH RESULTS: ☐ Refused Results 0.00 Instrument # 1234
CHEMICAL TEST: ☐ Both Tests Refused ☐ Urine ☐ Blood

MIRANDA WARNING GIVEN: ☒ Yes ☐ No Given by: K. Clark
What have you eaten today? When? FRIED CHICKEN 6PM
What have you been drinking? How much? Time of last drink? NOTHING N/A N/A
Time now? When did you last sleep? How long? MIDNIGHT LAST NIGHT 4 HRS
Are you sick or injured? ☐ Yes ☒ No
Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No
Do you have any physical defects? ☐ Yes ☒ No
Are you under the care of a doctor/dentist? ☒ Yes ☐ No I HAD A DOCTOR'S APPT TODAY
Are you taking any medication or drugs? ☒ Yes ☐ No CODEINE FOR BACK PAIN AS NEEDED

ATTITUDE: COOPERATIVE
COORDINATION: POOR WOBBLY STUMBLING
SPEECH: SLOW + MUMBLED
BREATH: NORMAL ODOR BREATHING SLOW + SHALLOW
FACE: NORMAL

CORRECTIVE LENS: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☒ Normal ☐ Bloodshot ☐ Watery
Blindness: ☒ None ☐ L. Eye ☐ R. Eye
Tracking: ☒ Equal ☐ Unequal
PUPIL SIZE: ☒ Equal ☐ Unequal (explain)
HGN Present: ☐ Yes ☒ No
Able to follow stimulus: ☒ Yes ☐ No
Eyelids: ☐ Normal ☒ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 60 / 0110	Lack of Smooth Pursuit	NO	NO
2. 60 / 0127	Max. Deviation	NO	NO
3. 60 / 0137	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☒ No
Convergence: Right Eye ✓ Left Eye ✓

ONE LEG STAND
15 25 12 20
L R L R
COUNTED SLOWLY 1022/1624 AT 30 SEC
☐ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☐ ☐ Puts foot down.

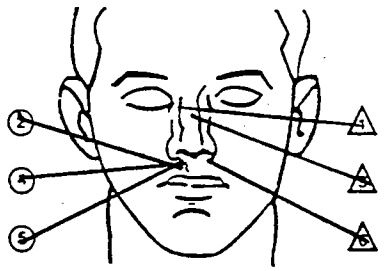
BALANCE EYES CLOSED
3 1 2 2

WALK AND TURN TEST: SLOW DELIBERATE STEPS
Cannot keep balance ✓✓
Starts too soon

	1st Nine	2nd Nine
Stops Walking		
Misses Heal-Toe	✓✓	✓
Steps off Line		
Raises Arms	✓✓✓	✓✓
Actual Steps Taken	9	9

INTERNAL CLOCK: 53 Estimated as 30 sec.
Describe Turn: LOST BALANCE STAGGERED TO RIGHT
Cannot do Test (explain): N/A
Type of Footwear: STREET SHOES

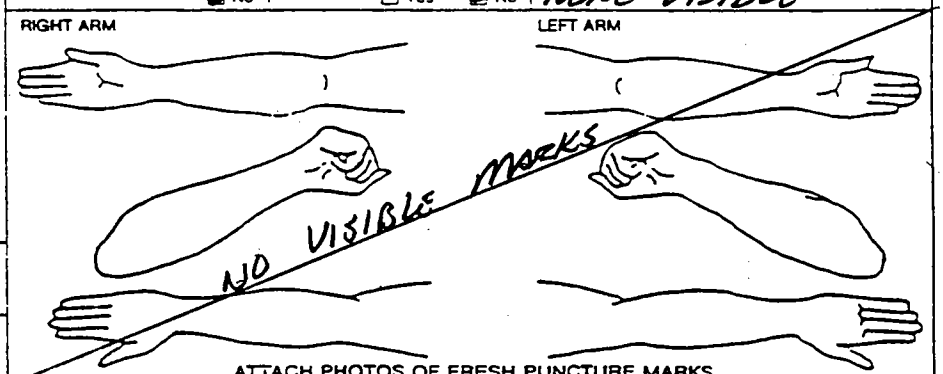
○ Right △ Left
Draw lines to spots touched



PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	2.0	2.5	2.0	2.0
Right Eye	2.0	2.5	2.0	2.0

NASAL AREA: CLEAR
ORAL CAVITY: CLEAR
HIPPUS: ☐ Yes ☒ No
REBOUND DILATION: ☐ Yes ☒ No
Reaction to Light: LITTLE OR NONE VISIBLE

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 106 / 64 TEMP: 97.8 °
MUSCLE TONE: ☐ Near Normal ☒ Flaccid ☐ Rigid
Comments: ARMS + NECK RUBBERY

What medicine or drug have you been using? How much? A COUPLE OF PILLS FOR MY BACK
Time of use? AROUND DINNER
Where were the drugs used? (location) SAM'S RESTAURANT

DATE/TIME OF ARREST: 8/15/96 2345
TIME DRE NOTIFIED: 0025
EVAL START TIME: 0100
TIME COMPLETED: 0150

CONTROL #:
EXAMINING OFFICER: Ken Clark
SERIAL NO: #172
DIVISION: VSP
UNAVAILABLE DATES:
REVIEWED BY: Pryor, M.

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Sgt. Ken Clark	ARRESTEE: Robert G. Groves

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Robert G. Groves, took place in the DRE room, 3rd Pct. Virginia Beach PD

2. WITNESS: Arresting Officer - Trooper J.J. Delavecchio

3. BREATH TEST: Writer observed Trooper J.J. Delavecchio administer a breath test to Groves, the result was 0.00%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio and advised to return to the precinct to conduct a DRE evaluation. Tpr Delavecchio informed me that he had observed the subject's vehicle drifting across the center line and driving 15 mph in a 45 mph zone. Tpr Delavecchio further stated that the subject admitted to taking "a few" pain pills.

5. INITIAL OBSERVATIONS: Writer observed the subject seated int he breath testing room VBPD. Subject appeared sleepy with his eyes closed and head nodded forward. He was cooperative throughout the examination.

6. MEDICAL PROBLEMS: Subject stated that he had taken codiene pills to alleviate back pain, and that he'd had an apointment with his doctor earlier that day. He further stated that he was not experiencing any pain at this time.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed side to side and front to back, and estimated 53 seconds as 30 seconds. Walk and Turn: Subject lost his balance during the instructions, missed heel to toe, and lost his balance while turning. One Leg Stand: Subject raised his arms, put his foot down, and swayed. Finger to Nose: Subject missed tip of nose on each attempt.

8. CLINICAL INDICATORS: Subject's blood pressure was below the normal range and his pupils were constricted.

9. SIGNS of INGESTION: None were evident

10. STATEMENTS: Subject stated he had taken "a couple of pills for my back". He also staed that the pills contained Codiene.

11. OPINION of EVALUATOR: In my opinion Robert G. Groves is under the influence of a Narc Anal and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS:

L NS P.S

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: KLIMA, J.
BOOKING NO.: 020
DR: XVIII - 3

ARRESTEE'S NAME (LAST, FIRST, MI)	AGE	SEX	RACE	ARRESTING OFFICER (NAME, SERIAL #, DIV.)
HATOS, STEPHEN H	52	M	W	UNSWORTH, J. 1811 PHOENIX PD

DATE EXAMINED/TIME/LOCATION: 11-25-96 2330 MARICOPA COUNTY JAIL
BREATH RESULTS: ☐ Refused — Results 0.04 — Instrument # 1234
CHEMICAL TEST: ☐ Both Tests Refused — ☑ Urine ☐ Blood

MIRANDA WARNING GIVEN: ☑ Yes ☐ No — Given by: J. KLIMA
What have you eaten today? When? ROAST BEEF DINNER 2 HRS AGO
What have you been drinking? How much? A GLASS OF WINE — Time of last drink? 2 HRS AGO
Time now? 11PM — When did you last sleep? How long? LAST NIGHT 8 HRS
Are you sick or injured? ☐ Yes ☑ No
Are you diabetic or epileptic? ☐ Yes ☑ No
Do you take insulin? ☐ Yes ☑ No
Do you have any physical defects? ☐ Yes ☑ No
Are you under the care of a doctor/dentist? ☐ Yes ☑ No
Are you taking any medication or drugs? ☐ Yes ☑ No

ATTITUDE: COOPERATIVE/NERVOUS
COORDINATION: POOR JERKY STUMBLING
SPEECH: NORMAL BUT VERY TALKATIVE
BREATH: ODOR of ALCOHOLIC BEVERAGE
FACE: NORMAL
CORRECTIVE LENS: ☑ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☑ Normal ☐ Bloodshot ☐ Watery
Blindness: ☑ None ☐ L. Eye ☐ R. Eye
Tracking: ☑ Equal ☐ Unequal
PUPIL SIZE: ☑ Equal ☐ Unequal (explain)
HGN Present: ☐ Yes ☑ No
Able to follow stimulus: ☑ Yes ☐ No
Eyelids: ☑ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 100 / 2340	Lack of Smooth Pursuit	YES	YES
2. 104 / 2349	Max. Deviation	NO	NO
3. 108 / 2358	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☑ No
Convergence: Right Eye → Left Eye ←

ONE LEG STAND: 27

BALANCE EYES CLOSED: 0 0 3 3 — EYELID TREMORS

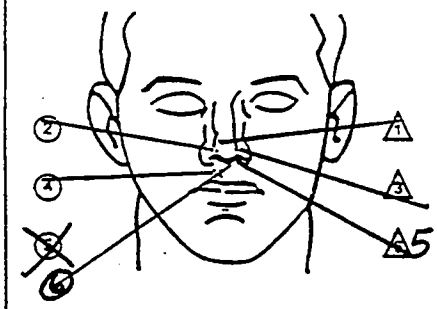
WALK AND TURN TEST: QUICKLY WALKED VERY — 5 — 5

	1st Nine	2nd Nine
Cannot keep balance	✓	
Starts too soon		
Stops Walking	✓	✓
Misses Heel-Toe		
Steps off Line		
Raises Arms	✓✓	✓
Actual Steps Taken	9	9

ONE LEG STAND: ☐ L ☐ R Sways while balancing; ☑ L ☑ R Uses arms to balance; ☐ L ☐ R Hopping; ☐ L ☐ R Puts foot down.

INTERNAL CLOCK: 20 Estimated as 30 sec.
Describe Turn: AS INSTRUCTED
Cannot do Test (explain): N/A
Type of Footwear: LOAFERS

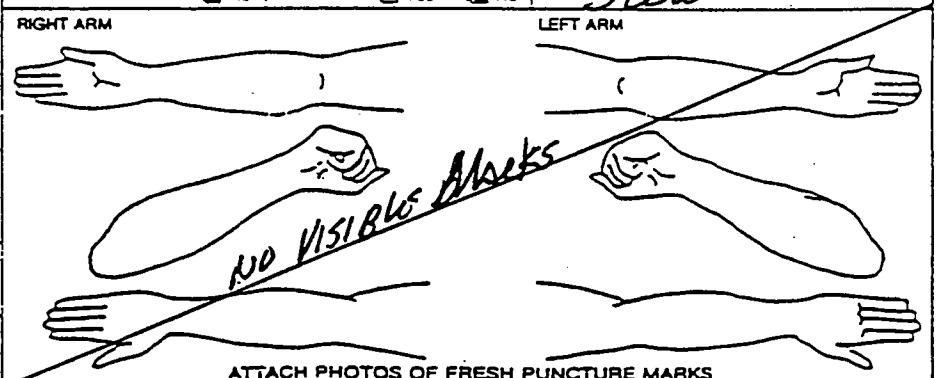
○ Right △ Left — Draw lines to spots touched



PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	6.0	8.5	8.0	5.5
Right Eye	6.0	8.5	8.0	5.5

NASAL AREA: REDNESS & ABRASIONS IN NOSE
ORAL CAVITY: CLEAR
HIPPUS: ☐ Yes ☑ No
REBOUND DILATION: ☐ Yes ☑ No
Reaction to Light: SLOW

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 146 / 100 — TEMP: 99.2°
MUSCLE TONE: ☑ Near Normal ☐ Flaccid ☐ Rigid
Comments:

What medicine or drug have you been using? How much? NONE N/A
Time of use? I DIDN'T DO ANY
Where were the drugs used? (Location) I DIDN'T SMOKE ANYTHING

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
11-25-96 2250	2310	2330	11-26-96 0010

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	J. Klima	2120	PPD		CONRAD, M

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Lt. Joseph Klima	ARRESTEE: Stephen H. Hatos

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Stephen H. Hatos, took place in the DRE room, Maricopa County Jail

2. WITNESS: Arresting Officer - J. Unsworth #1811

3. BREATH TEST: Officer Unsworth administer a breath test to Hatos, the result was 0.04%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio and advised to return to the jail to conduct a DRE evaluation. Officer Unsworth informed me that he had observed the subject driving at excessive speed and he failed to stop at a red traffic light. Officer Unsworth further stated that the subject appeared nervous and performed poorly on the SFSTs.

5. INITIAL OBSERVATIONS: Writer observed the subject seated in the breath testing room. Subject was very talkative, repeatedly shifted his weight from foot to foot, and exhibited nervous abrupt movements with his hands. When not speaking he appeared to grind his teeth. There was also an odor of alcoholic beverage on the subjects breath.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Subject performed all of the tests in a stumbling jerky fashion. Romberg Balance: Subject swayed approximately 3" side, and estimated 20 seconds as 30 seconds. Walk and Turn: Subject lost his balance during the instructions, and stopped walking and used his arms for balance. One Leg Stand: Subject raised his arms, put his foot down, and swayed. Finger to Nose: Subject missed tip of nose on each attempt.

8. CLINICAL INDICATORS: Subject's blood pressure and pulse were above the normal range.

9. SIGNS of INGESTION: None were evident

10. STATEMENTS: Subject stated, "I didn't snort anything"

11. OPINION of EVALUATOR: In my opinion Stephen H. Hatos is under the influence of a and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS:

CNS
D.P

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: Poff, MEL
BOOKING NO.: 021
DR.: XVIII - 4

ARRESTEE'S NAME (LAST, FIRST, MI): INGRAHAM, ROBERT I
AGE: 31 | SEX: M | RACE: B
ARRESTING OFFICER (NAME, SERIAL #, DIV.): Poff, M. 3529 HPD

DATE EXAMINED/TIME/LOCATION: JAN 17, 1997 2200 CENTRAL INTOX
BREATH RESULTS: ☐ Refused Results 0.00 Instrument # 66-001286
CHEMICAL TEST: ☐ Both Tests Refused ☒ Urine ☐ Blood

MIRANDA WARNING GIVEN: ☒ Yes ☐ No Given by: M. Poff
What have you eaten today? When? CHINESE FOOD LUNCH
What have you been drinking? How much? JUST WATER N/A
Time of last drink? N/A

Time now? ABOUT 8PM
When did you last sleep? How long? LAST NIGHT 2HRS
Are you sick or injured? ☐ Yes ☒ No
Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No
Do you have any physical defects? ☐ Yes ☒ No
Are you under the care of a doctor/dentist? ☒ Yes ☐ No DOCTOR FOR STRESS
Are you taking any medication or drugs? ☒ Yes ☐ No VALIUM 10MG TWICE/DAY

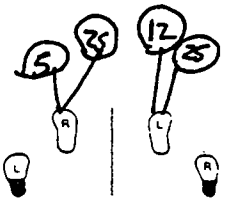
ATTITUDE: COOPERATIVE DETATCHED
COORDINATION: POOR STAGGERING
SPEECH: THICK, SLURRED, SLOW TO RESPOND
BREATH: CHEMICAL ODOR
FACE: NORMAL COLOR BLANK STARE

CORRECTIVE LENS: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☐ Normal ☐ Bloodshot ☒ Watery
Blindness: ☒ None ☐ L. Eye ☐ R. Eye
Tracking: ☒ Equal ☐ Unequal
PUPIL SIZE: ☒ Equal ☐ Unequal (explain)
HGN Present: ☒ Yes ☐ No
Able to follow stimulus: ☒ Yes ☐ No
Eyelids: ☒ Normal ☐ Droopy

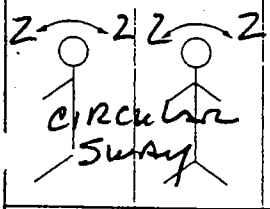
PULSE & TIME	HGN	Left Eye	Right Eye
1. 92, 2210	Lack of Smooth Pursuit	YES	YES
2. 92, 2225	Max. Deviation	YES	YES
3. 94, 2235	Angle of Onset	30°	30°

Vertical Nystagmus? ☒ Yes ☐ No
Convergence: Right Eye ✓ Left Eye ✓

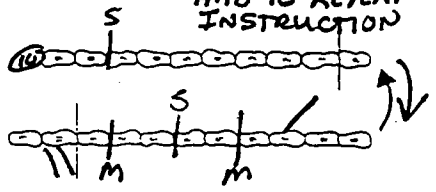
ONE LEG STAND



BALANCE EYES CLOSED



WALK AND TURN TEST: HAD TO REPEAT INSTRUCTION

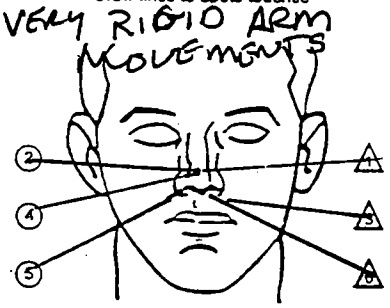


	1st Nine	2nd Nine
Cannot keep balance	VV	
Starts too soon		
Stops Walking	V	V
Misses Heal-Toe	VV	V
Steps off Line	V	
Raises Arms	VV	VV
Actual Steps Taken	9	10

☐ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☐ ☐ Puts foot down.

INTERNAL CLOCK: 46 Estimated as 30 sec.
Describe Turn: TURNED BACKWARDS
Cannot do Test (explain): N/A
Type of Footwear: RUNNING SHOES

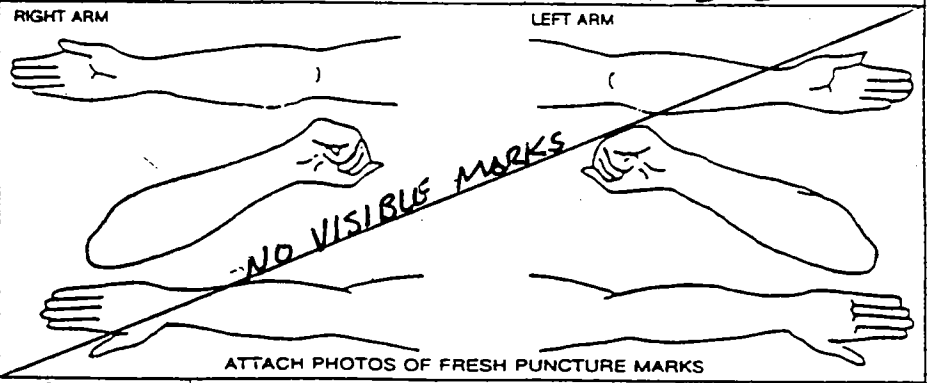
○ Right △ Left
Draw lines to spots touched
VERY RIGID ARM MOVEMENTS



PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	4.0	6.0	5.5	4.0
Right Eye	4.0	6.0	5.5	4.0

NASAL AREA: CLEAR
ORAL CAVITY: RED COATING ON TONGUE
HIPPUS: ☐ Yes ☒ No
REBOUND DILATION: ☐ Yes ☒ No
Reaction to Light: SLOW

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 144, 100
TEMP: 99.2°
MUSCLE TONE: ☐ Near Normal ☐ Flaccid ☒ Rigid
Comments: ARMS + NECK RIGID

What medicine or drug have you been using? How much? JUST MY PILLS 2 A DAY
Time of use? YESTERDAY
Where were the drugs used? (Location) I DIDN'T DO ANYTHING ELSE

DATE/TIME OF ARREST: JAN 17, 1997 2120
TIME DRE NOTIFIED: 2120
EVAL START TIME: 2200
TIME COMPLETED: 2300

CONTROL #:
EXAMINING OFFICER: M. Poff
SERIAL NO: 314
DIVISION: ACCI
UNAVAILABLE DATES:
REVIEWED BY: PAQUETTE, D.

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Officer Mel Poff	ARRESTEE: Robert I. Ingraham

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Robert I. Ingraham, took place in the DRE room, HPD

2. WITNESS: Mr. John McKay (Texas DECP Cordinator)

3. BREATH TEST: Writer administered breath test to Ingraham, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was the arresting officer.

5. INITIAL OBSERVATIONS: Writer observed subject seated in the drivers position of a blue, 1990 Oldsmobile, NJ registration "297 BXX". Vehicle was stationary in the driving lane of Easton Ave., at the intersection with West St. The traffic light was green and the other vehicles had to pull out and around subject's vehicle.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 2" in a circular motion and estimated 46 seconds as 30 seconds. Walk and Turn: Subject lost his balance during the instructions, missed heel to toe, stopped walking, stepped off the line, turned backwards, and returned taking ten (10) steps. One Leg Stand: Subject raised his arms,put his foot down, and swayed. Finger to Nose: Subject missed tip of his nose, and had very rigid arm movements.

8. CLINICAL INDICATORS: Subject had HGN, Vertical Nystagmus and Lack of Convergence. His pulse, and blood pressure were above the normal range.

9. SIGNS of INGESTION: Subject's breath had a strong chemical odor and a red coating on the tongue.

10. STATEMENTS: Subject stated he regularly takes Valium for stress. He further stated "I don't do anything else."

11. OPINION of EVALUATOR: In my opinion Robert I. Ingraham is under the influence of a and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS:

N/A | ~~Strine~~ PCP

DRUG INFLUENCE EVALUATION

Page 1 of 2

EVALUATOR: STUDARD, R. C

BOOKING NO.: 022 | DR.: XVIII-5

ARRESTEE'S NAME (LAST, FIRST, MI)	AGE	SEX	RACE	ARRESTING OFFICER (NAME, SERIAL #, DIV.)
JACKSON, REGINA J.	33	F	W	KOCHUBKA, D, 732 MPDC

DATE EXAMINED/TIME/LOCATION	BREATH RESULTS	CHEMICAL TEST
3/18/96 2030 USCP	☐ Refused Results .010 Instrument # 1234	☐ Urine ■ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN	What have you eaten today? When?	What have you been drinking? How much?	Time of last drink?
■ Yes ☐ No Given by: KOCHUBKA, D	SOME TOAST THIS MORNING	COFFEE N/A	N/A

Time now?	When did you last sleep? How long?	Are you sick or injured?	Are you diabetic or epileptic?
MIDNIGHT	LAST NIGHT 8HRS	☐ Yes ■ No	☐ Yes ■ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor/dentist?
☐ Yes ■ No	☐ Yes ■ No	☐ Yes ■ No

Are you taking any medication or drugs?	ATTITUDE	COORDINATION
☐ Yes ■ No	PASSIVE COOPERATIVE	POOR VERY UNSTEADY

SPEECH	BREATH	FACE
SLOW, LOW, RASPY	HALITOSIS	FLUSHED BLANK STARE

CORRECTIVE LENS:	Eyes:	Blindness:	Tracking:
■ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	■ Normal ☐ Bloodshot ☐ Watery	■ None ☐ L. Eye ☐ R. Eye	■ Equal ☐ Unequal

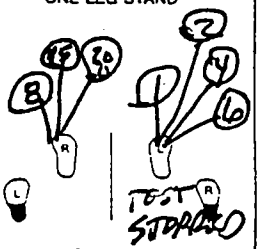
PUPIL SIZE:	HGN Present:	Able to follow stimulus:	Eyelids:
■ Equal ☐ Unequal (explain)	■ Yes ☐ No	■ Yes ☐ No	☐ Normal ■ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 92 / 2038	Lack of Smooth Pursuit	YES	YES
2. 96 / 2051	Max. Deviation	YES	YES
3. 92 / 2103	Angle of Onset	35°	35°

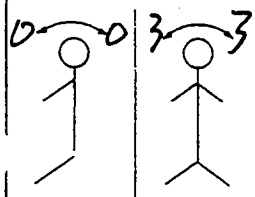
Vertical Nystagmus? ■ Yes ☐ No

Convergence: Right Eye / Left Eye

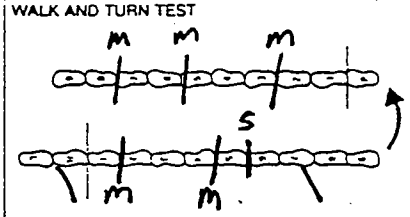
ONE LEG STAND



BALANCE EYES CLOSED



WALK AND TURN TEST

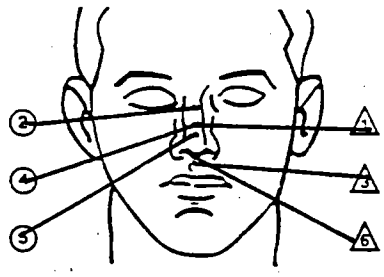


	1st Nine	2nd Nine
Cannot keep balance	✓	
Starts too soon	✓	
Stops Walking	✓	
Misses Heel-Toe	VV	VVV
Steps off Line	✓	
Raises Arms	VV	VVV
Actual Steps Taken	9	9

L R
☐ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☐ ☐ Puts foot down.

INTERNAL CLOCK	Describe Turn	Cannot do Test (explain)	Type of Footwear
50 Estimated as 30 sec.	ABRUPT SWIVEL Followed By STAGGERING	N/A	BAREFOOT

○ Right △ Left
Draw lines to spots touched

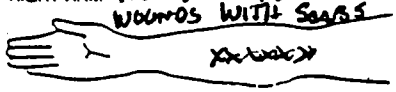


PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	2.0	2.5	2.0	2.0
Right Eye	2.0	2.5	2.0	2.0

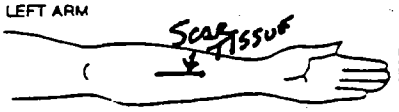
NASAL AREA: CLEAR
ORAL CAVITY: CLEAR

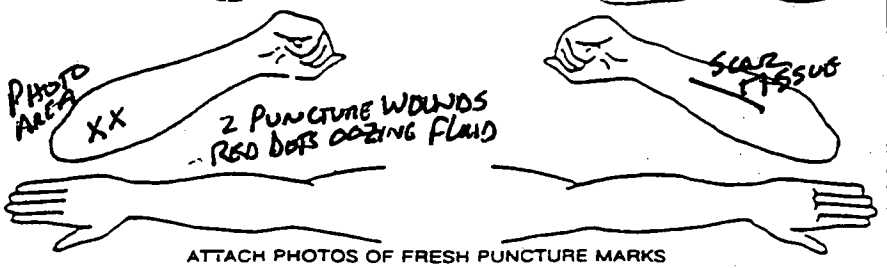
HIPPUS ☐ Yes ■ No | REBOUND DILATION ☐ Yes ■ No | Reaction to Light: LITTLE OR NONE VISIBLE

RIGHT ARM: NUMEROUS PUNCTURE WOUNDS WITH SCABS



LEFT ARM: SCAR TISSUE





ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE	TEMP
130 / 90	98.9 °

MUSCLE TONE: ■ Near Normal ☐ Flaccid ☐ Rigid
Comments:

What medicine or drug have you been using? How much?	Time of use?	Where were the drugs used? (Location)
NO I DIDN'T USE NOTHING	I DIDN'T USE IT	I DON'T DO THAT ANYMORE

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
MAR 8, 1996 2010	2020	2030	2120

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	R. Studard	702	LARD		Lyon M.

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Sgt. Richard Studdard	ARRESTEE: Regina J. Jackson

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Regina J. Jackson, took place in the DRE room, US Capitol Police HDQT.

2. WITNESS: Arresting Officer D. Kochubka, MPDC and Officer G. Bird USCP

3. BREATH TEST: Officer D. Kochubka administered breath test to Jackson, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was on duty at USCP HDQTs administering the DRE knowledge examination when notified that Officer Kochubka was in route with a "drugee". Officer Kochubka stated he had observed the subject walking eastbound on East Capitol St., staggering and stumbling. She appeared dazed confused and mumbling softly. He further stated that the subject was wearing only shorts, a tee shirt, and w as barefoot. The temperature at the time was approximately 34' F. No odor of alcoholic beverage was detected.

5. INITIAL OBSERVATIONS: Writer observed subject as she was being brought into the building. She repeatedly staggered, stumbled, exhibited a blank stare and appeared to be unaware of her surroundings.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" side to side and estimated 50 seconds as 30 seconds. Walk and Turn: Subject lost her balance during the instructions, stepped off the line, stopped walking, repeatedly missed heel to toe, and raised her arms for balance. One Leg Stand: Subject raised her arms, put her foot down, swayed, and raised her arms for balance. Finger to Nose: Subject had to be reminded several times to keep her eyes closed, and consistently missed the tip of the nose.

8. CLINICAL INDICATORS: Subject had HGN, Vertical Nystagmus and Lack of Convergence. Her pulse was above the normal range, and her blood pressure and temperature were within the normal range. Pupils were constricted.

9. SIGNS of INGESTION: Subject's had numerous scars resembling track marks on both arms, and had a fresh oozing puncture wound on the right arm.

10. STATEMENTS: Subject stated, "No I didn't use anything" , " I didn't use it " and "I don't do that anymore"

11. OPINION of EVALUATOR: In my opinion Regina J. Jackson is under the influence of a and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS:

None Medical Problem

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: HALLENBECK 26129
BOOKING NO.: —
DR.: XVIII-6

ARRESTEE'S NAME (LAST, FIRST, MI)	AGE	SEX	RACE	ARRESTING OFFICER (NAME, SERIAL #, DIV.)
WILLIAMS, CLINTON	67	M	BLK	FELIX 14117 STD

DATE EXAMINED/TIME/LOCATION: 06-10-93, 1245, S/W STA
BREATH RESULTS: ☐ Refused — Results .00% .00% Instrument # 1234
CHEMICAL TEST: ☐ Both Tests Refused — ☒ Urine ☐ Blood

MIRANDA WARNING GIVEN: ☒ Yes ☐ No — Given by FELIX 14117
What have you eaten today? When? NOTHING YET —
What have you been drinking? How much? I DIDN'T NOTHING AT ALL
Time of last drink? —

Time now? YEAH
When did you last sleep? How long? ABOUT 2 DAYS ?
Are you sick or injured? 10 (10 SEC PAUSE) I'M NOT ☐ Yes ☒ No
Are you diabetic or epileptic? UH, NO ☐ Yes ☒ No

Do you take insulin? UMM (PAUSE) NOT YET ☐ Yes ☒ No
Do you have any physical defects? ☐ Yes ☒ No
Are you under the care of a doctor/dentist? I DON'T GO TO THE DOCTOR ☐ Yes ☒ No

Are you taking any medication or drugs? I TOOK TYLENOL THIS AM ☐ Yes ☒ No
ATTITUDE: COOPERATIVE SLOW TO RESPOND
COORDINATION: SLOW, BUT SHAKEY
SPEECH: LOW VOICE, SLOW AND SOMETIMES SLURRED
BREATH: NOTHING UNUSUAL
FACE: NOTHING UNUSUAL

CORRECTIVE LENS: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: CLOUDY CT EYE ☐ Normal ☐ Bloodshot ☒ Watery
Blindness: ☒ None ☐ L. Eye ☐ R. Eye
Tracking: ☒ Equal ☐ Unequal
PUPIL SIZE: ☐ Equal ☒ Unequal (explain) RT PUPIL 2mm LARGER IN ALL LIGHTING
HGN Present: ☐ Yes ☒ No
Able to follow stimulus: ☒ Yes ☐ No
Eyelids: ☒ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 120 / 1245	Lack of Smooth Pursuit	NO	NO
2. 120 / 1305	Max. Deviation	NO	NO
3. 120 / 1345	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☒ No
Convergence — Right Eye / Left Eye

ONE LEG STAND: 16 3

BALANCE EYES CLOSED: NO SWAY / OPEN

WALK AND TURN TEST: WOULD NOT PLACE RIGHT FOOT IN FRONT OF LEFT. STATED, "THIS IS IMPOSSIBLE" AND STEPPED OFF LINE. WOULD NOT CONTINUE TEST

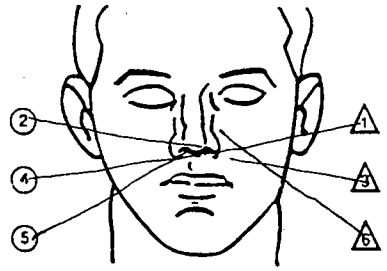
Cannot keep balance: V V V
Starts too soon: —

	1st Nine	2nd Nine
Stops Walking		
Misses Heal-Toe		
Steps off Line		
Raises Arms		
Actual Steps Taken		

	L	R
Sways while balancing.	☒	☒
Uses arms to balance.	☐	☐
Hopping.	☐	☐
Puts foot down.	☒	☒

INTERNAL CLOCK: 15 Estimated as 30 sec.
Describe Turn: N/A
Cannot do Test (explain): —
Type of Footwear: WORK BOOTS

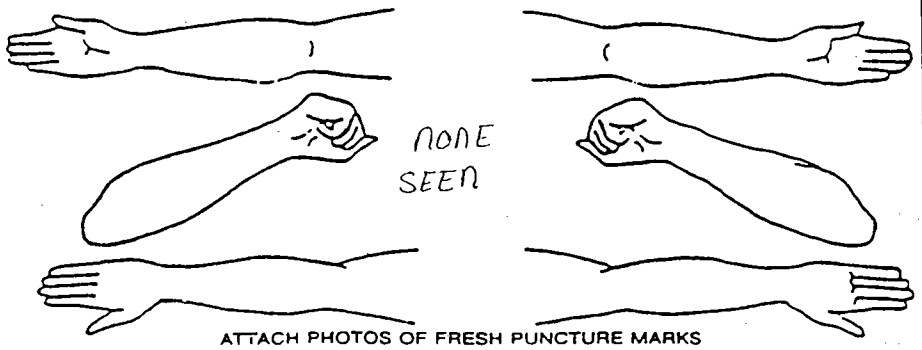
○ Right △ Left — Draw lines to spots touched



PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	4.5	6.5	5.0	4.0
Right Eye	3.5	5.5	4.0	3.0

NASAL AREA: CLEAR
ORAL CAVITY: CLEAR
HIPPUS: ☐ Yes ☒ No
REBOUND DILATION: ☐ Yes ☒ No
Reaction to Light: NORMAL

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 160 / 80 TEMP: 99.0°
MUSCLE TONE: ☒ Near Normal ☐ Flaccid ☐ Rigid
Comments:

What medicine or drug have you been using? How much? JUST TYLENOL 2, THIS MORNING
Time of use? NO ANSWER
Where were the drugs used? (Location) —

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
06-10-93 1130	1205	1245	1345

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
93-10	HALLENBECK	26129	STD	—	TE PAGE

DRUG INFLUENCE EVALUATION

LOG NO.	DRE: Officer J. Hallenback	ARRESTEE: Clinton Williams

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Clinton Williams, took place in the DRE examination room Southwest Div., LAPD

2. WITNESS: Arresting Officer - Officer P. Felix #14117, South Traffic Division

3. BREATH TEST: Writer administered breath test to Williams, the result was 0.00%

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: I was advised via dispatch to respond to Southwest Division to conduct an evaluation at the request of Officer Felix. Officer Felix stated that the subject had been a driver of a vehicle involved in a fatal crash.

5. INITIAL OBSERVATIONS: Writer first observed the defendant standing next to the breath testing instrument at the rear door of Southwest Station. He was standing upright on his own without assistance and was not swaying.

6. MEDICAL PROBLEMS: The defendant did state that high blood pressure runs in his family and defendant sometimes stutters uncontrollably.

7. PSYCHOPHYSICAL TESTS: During the instruction portions of all the divided attention tests. Defendant appeared to be confused. When asked if he understood the instructions of the test, Williams would say "yes" or "yeah" but would still appear to be confused. I had to continually show the defendant how to perform the test, and after the defendant would perform the test, he would still appear to not have understood what he had just done. The defendant would not complete or even attempt to complete the walk and turn test. He just stated "This is impossible" and stand there staring at the line on which he had been standing. I had to physically move the defendant's right foot in front of his left foot on the line during the instruction phase, even after repeated demonstrations he didn't seem to understand. Romberg Balance: Subject estimated 15 seconds as 30 seconds. Williams exhibited non-bilateral impairment on certain divided attention tasks: for example during the finger to nose test, he correctly touched his nose with his right index finger, but missed on all three occasions with his left hand.

8. CLINICAL INDICATORS: Subjects pulse and systolic blood pressure were above the normal range. He was sweating heavily around the neck and chest area. Pupils were unequal (1 millimeter) in all light levels.

9. SIGNS of INGESTION: None were evident

10. STATEMENTS: Defendant stated "I do not use (stutter pause) drugs at all, I only took two Tylenol this morning. (long pause 10 -seconds) I don't drink that much anymore, either."

11. OPINION of EVALUATOR: In my opinion, Clinton Williams is not exhibiting any symptoms of drug intoxication but was possibly exhibiting signs of mental impairment.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample

SESSION XIX

INHALANTS

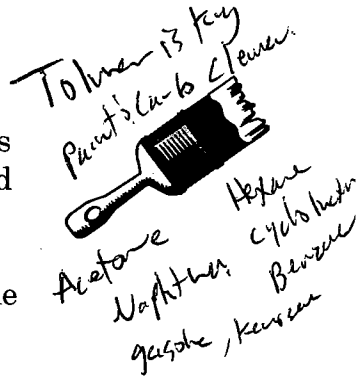
SESSION XIX INHALANTS

Upon successfully completing this session, the participants will be able to:

- Explain a brief history of the Inhalant category of drugs.
- Identify common drug names and terms associated with this category.
- Identify common methods of administration for this category.
- Explain the symptoms, observable signs and other effects associated with this category.
- Explain the typical time parameters, i.e., onset and duration of effects, associated with this category.
- State the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of this category of drugs.
- Correctly address the "Topics for Study" questions at the end of this session.

A. Overview of Inhalants

Inhalants include a wide variety of breathable chemicals that produce mind altering results. These substances are readily available in many households and can be purchased easily. There are three major subcategories of inhalants.



The <u>volatile solvents</u> include a large number of readily available substances, none of which is intended by the manufacturer to be used as a drug. One of the most widely abused volatile solvents is plastic cement, or "model airplane glue". Other frequently abused volatile solvents include paint, gasoline, paint thinners, dry cleaning fluids, typewriter correction fluid and fingernail polish removers. The principal active ingredient in many abused volatile solvents is toluene.

The <u>aerosols</u> are chemicals discharged from a pressurized container by the propellant force of a compressed gas. Commonly abused aerosols include hair sprays, deodorants, insecticides, freon, glass chillers and vegetable frying pan lubricants. Abused aerosols contain various hydrocarbon gasses that produce drug effects.

The majority of abusers are children ages 10-15 years. Males still outnumber females in abusing these substances.

The third subcategory, the <u>anesthetic gases</u>, includes substances that are less frequently abused than are volatile solvents or aerosols. The anesthetic gases are drugs that abolish pain, and they are used medically for that purpose during surgery. Anesthetic gases that are sometimes abused include ether, chloroform, amyl nitrite, butyl nitrite, isobutyl nitrite and nitrous oxide.

There is an important distinction between the Anesthetic Gases and the other two subcategories of Inhalants. The Volatile Solvents and the Aerosols usually cause elevated blood pressure. But the Anesthetic Gases usually cause blood pressure to become <u>lower</u> than normal. Apparently, this is due to the fact that the Anesthetic Gases restrict the pumping action of the heart, so that the heart cannot constrict as forcibly as it usually does. The result is that blood pressure drops. Pulse rate, however, usually is <u>increased</u> by all three subcategories of Inhalants.

Some inhalant users prefer to put the volatile solvents in a plastic bag, others soak rags or socks and then sniff the fumes. Many abusers use everyday items such as aluminum cans, balloons or other containers in an attempt to conceal their use and concentrate the fumes. The common street names that abusers use are, "Huffing", "Hacking", "Ballooning" and "Glading".

B. Possible Effects of Inhalants

The effects of inhalants vary from one substance to another.

1. Glue and similar volatile solvents typically produce:

    - o inebriation similar to alcohol intoxication
    - o bizarre thoughts
    - o dizziness and numbness
    - o euphoria and grandiosity
    - o floating sensation
    - o distorted perceptions of time and distance
    - o possible hallucinations
    - o antagonistic behavior
    - o intense headaches

2. Gasoline and similar petroleum products typically give rise to:

    - o nausea and excessive salivation
    - o drowsiness and weakness
    - o light headedness
    - o sensation of spinning, moving, floating
    - o distorted space perception
    - o altered shapes and colors

In general, persons under the influence of inhalants will appear confused and disoriented. Their speech usually will be slurred.

C. Onset and Duration of Inhalants' Effects

Inhalants' effects are felt virtually immediately. However, the duration of effects depends on the substance used. For example, glue, paint, gasoline and other commonly abused inhalants usually produce effects that last from several minutes, up to eight hours depending on the substances abused and the duration of abuse. Nitrous oxide's effects typically last 5 minutes or less. The effects of amyl nitrite and butyl nitrite last from a few seconds to up to 20 minutes.

D. Signs and Symptoms of Inhalant Overdose

Some inhalants will depress the central nervous system to the point where respiration ceases. Others can cause heart failure. Some inhalant overdoses induce severe nausea and vomiting, and the unconscious user may drown in his or her own vomit. Others using bags to get high may pass out then suffocate with a bag over their face. Thus, there is a significant risk of death due to inhalant abuse.

There is evidence that long term inhalant abuse can cause:

- o permanent damage to the central nervous system
- o liver damage
- o kidney damage
- o bone and bone marrow damage
- o greatly reduced mental and physical abilities
- o Death

E. Expected Results of the Evaluation

When a person under the influence of inhalants is examined by a drug recognition expert, the following results generally will be found.

Horizontal Gaze Nystagmus - present.

Vertical Nystagmus - present, high dose for that particular individual.

Lack of Convergence - present.

Pupil size - normal, but may be dilated with certain specific inhalants (anesthetic gases).

Pupil's reaction to light - slow.

Pulse rate - up.

Blood pressure - up or down. Volatile Solvents and Aerosols usually will cause elevated blood pressure, while Anesthetic Gases usually will lower the blood pressure.

Temperature - up, down or normal depending on the substance.

Muscle tone usually will be normal.

General Indicators

- o odor of the inhaled substance
- o traces of substance around face, nose, hands or clothing
- o bloodshot watery eyes
- o confused, disoriented appearance
- o muscle tone varies
- o flushed face, possible sweating
- o slow, thick, slurred speech (speech clears up quickly when substance is no longer being inhaled)

All Nitrites are Anesthetic gases 5-20 min
All Solvents Make heart sensitive to Adrenaline

Topics for study

1. What are the three major subcategories of inhalants?

2. What is the principal active ingredient in many volatile substances?

3. In what important respect do the effects of Anesthetic Gases differ from the effects of Volatile Solvents and Aerosols?

4. Does any of the subcategories of Inhalants cause pulse rate to decrease?

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: BUSTRUM, ROB
BOOKING NO: 023
DR: XIX-1

ARRESTEE'S NAME (LAST, FIRST, MI): BROWNLEE, MICHAEL M
AGE: 18 | SEX: M | RACE: H
ARRESTING OFFICER (NAME, SERIAL #, DIV.): BLEA, J. 779 DPD
DATE EXAMINED/TIME/LOCATION: 7-2-96 2200 DPD TRAFFIC DIV
BREATH RESULTS: ☐ Refused Results 0.00 Instrument # 1234
CHEMICAL TEST: ■ Urine ☐ Blood ☐ Both Tests Refused
MIRANDA WARNING GIVEN: ■ Yes ☐ No Given by: R. BUSTRUM
What have you eaten today? HAMBURGER When? 6PM
What have you been drinking? How much? JUST WATER N/A Time of last drink? N/A
Time now? ABOUT 10 When did you last sleep? LAST NIGHT How long? 6
Are you sick or injured? ☐ Yes ■ No
Are you diabetic or epileptic? ☐ Yes ■ No
Do you take insulin? ☐ Yes ■ No
Do you have any physical defects? ☐ Yes ■ No
Are you under the care of a doctor/dentist? ☐ Yes ■ No
Are you taking any medication or drugs? ☐ Yes ■ No
ATTITUDE: COOPERATIVE BUT DAZED
COORDINATION: VERY POOR COULD BARELY STAND
SPEECH: SLURRED / MUMBLED
BREATH: CHEMICAL ODOR LIKE PAINT
FACE: PAINT SMEARS UPPER LIP AND CHIN
CORRECTIVE LENS: ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft ■ None
Eyes: ☐ Normal ☐ Bloodshot ■ Watery
Blindness: ■ None ☐ L Eye ☐ R Eye
Tracking: ■ Equal ☐ Unequal
PUPIL SIZE: ■ Equal ☐ Unequal (explain)
HGN Present: ■ Yes ☐ No
Able to follow stimulus: ■ Yes ☐ No
Eyelids: ■ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 104 : 2210	Lack of Smooth Pursuit	YES	YES
2. 102 : 2224	Max. Deviation	YES	YES
3. 104 : 2240	Angle of Onset	30°	30°

Vertical Nystagmus? ☐ Yes ■ No
Convergence: Right Eye ✓ Left Eye ✓

ONE LEG STAND: TEST STOPPED SUBJ FELL

BALANCE EYES CLOSED: TEST STOPPED STAGGERED NEARLY FELL

WALK AND TURN TEST: TEST STOPPED COULD NOT STAND

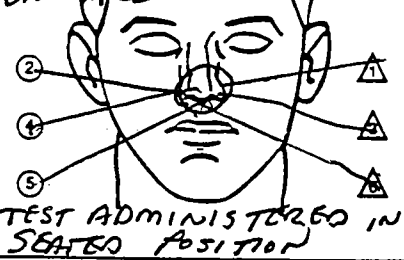
Cannot keep balance ✓✓✓
Starts too soon

	1st Nine	2nd Nine
Stops Walking		
Misses Heal-Toe		
Steps off Line		
Raises Arms		
Actual Steps Taken		

L	R	
☐	☐	Sways while balancing.
☐	☐	Uses arms to balance.
☐	☐	Hopping.
☐	☐	Puts foot down.

INTERNAL CLOCK: N/A Estimated as 30 sec.
Describe Turn: N/A
Cannot do Test (explain): UNABLE TO STAND HEEL-TOE
Type of Footwear

○ Right △ Left
Draw lines to spots touched
SUBJ USED PALM OF HAND (TO TOUCH NOSE ON ALL TRIES



TEST ADMINISTERED IN SEATED POSITION

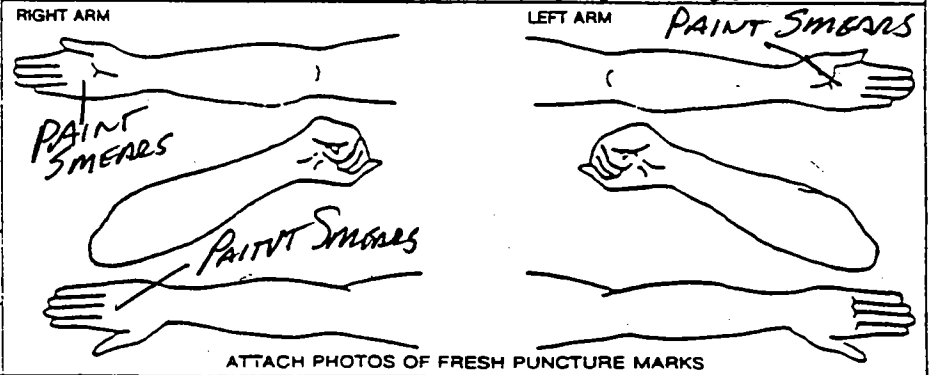
PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	4.0	6.5	6.0	3.5
Right Eye	4.0	6.5	6.0	3.5

NASAL AREA: DRIED PAINT UPPER LIP
ORAL CAVITY: ODOR OF PAINT

NYSTAGMUS: ☐ Yes ■ No
REBOUND DILATION: ☐ Yes ■ No
Reaction to Light: NORMAL

BLOOD PRESSURE: 140 / 100
TEMP: 98.6°
MUSCLE TONE: ■ Near Normal ☐ Flaccid ☐ Rigid
Comments:

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

What medicine or drug have you been using? I SNIFFED A LITTLE GOLD How much? NOT MUCH
Time of use? ABOUT 8
Where were the drugs used? (Location) IN THE PARK

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
7-2-96 2130	2145	2200	2245

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	R. Bustrum	9822	DRD		M. Gorge

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Sgt. Rob Bustrum	ARRESTEE: Michael M. Brownlee

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Michael M. Brownlee, took place in the DRE room, Traffic Office, Denver PD

2. WITNESS: Arresting Officer John Blea, Denver Police Department

3. BREATH TEST: Arresting Officer John Blea, administered breath test to Brownlee, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio and advised to return to the holding facility to conduct a DRE evaluation. Officer Blea stated he had arrested the subject for failing to obey a traffic control device, at Colfax and 6th Ave. Subject was uncooperative, uncoordinated, and unable to perform the SFSTs. A can of Krylon Gold spray paint was found on the front seat of the subjects vehicle along paint soaked rags.

5. INITIAL OBSERVATIONS: Writer observed subject seated in the DRE room, he appeared passive and dazed. Gold colored paint smears were visible on his hands chin and upper lip.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject unable to perform test, and it was terminated for his safety. Walk and Turn: Subject unable to perform test, and it was terminated for his safety. One Leg Stand: Subject unable to perform test, and it was terminated for his safety. Finger to Nose: Subject was seated and used the palm of his hand to touch his nose on each attempt.

8. CLINICAL INDICATORS: Subject had HGN, and Lack of Convergence. His pulse and blood pressure were above the normal range.

9. SIGNS of INGESTION: Subject's breath had a strong chemical odor "like paint." There were gold colored paint smears on his face and hands.

10. STATEMENTS: Subject was asked "how much paint did you sniff today?" He replied, "I sniffed a little gold - not to much - just a little bit". When asked when and where he'd sniffed, he replied, "about 8 o'clock in the park".

11. OPINION of EVALUATOR: In my opinion Michael M. Brownlee is under the influence of an Inhalant and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS:

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: TIDWELL, Jerry
BOOKING NO: 024
DR. #: X1X - 2

ARRESTEE'S NAME (LAST, FIRST, MI): DERBY, ADELE, S.
AGE: 16 | SEX: F | RACE: W
ARRESTING OFFICER (NAME, SERIAL #, DIV.): TIDWELL, J 617 CHP

DATE EXAMINED/TIME/LOCATION: DEC 7, 1996 2000 STOCKTON PD
BREATH RESULTS: Results 0.03 ☐ Refused Instrument # 1234
CHEMICAL TEST: ☐ Urine ☐ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN: ☑ Yes ☐ No
Given by: J. TIDWELL
What have you eaten today? When? SOME PIZZA RIGHT AFTER SCHOOL
What have you been drinking? How much? LOOP OF WINE COOLERS 2
Time of last drink? 7PM

Time now? ABOUT 8PM
When did you last sleep? How long? LAST NIGHT 7HRS
Are you sick or injured? I FEEL DIZZY & WOOZY ☑ Yes ☐ No
Are you diabetic or epileptic? ☐ Yes ☑ No

Do you take insulin? ☐ Yes ☑ No
Do you have any physical defects? ☐ Yes ☑ No
Are you under the care of a doctor/dentist? ☐ Yes ☑ No

Are you taking any medication or drugs? ☐ Yes ☑ No
ATTITUDE: COOPERATIVE VERY SLOW TO RESPOND
COORDINATION: POOR STAGGERING

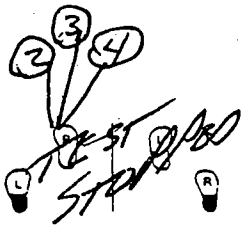
SPEECH: SLOW, SLURRED AND LOW
BREATH: DISTINCT ODOR OF GASOLINE
FACE: FLUSHED

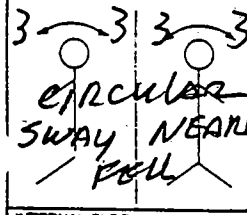
CORRECTIVE LENS: ☑ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☐ Normal ☑ Bloodshot ☑ Watery
Blindness: ☑ None ☐ L. Eye ☐ R. Eye
Tracking: ☑ Equal ☐ Unequal

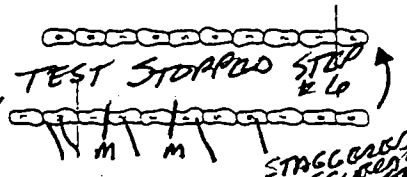
PUPIL SIZE: ☑ Equal ☐ Unequal (explain)
HGN Present: ☑ Yes ☐ No
Able to follow stimulus: ☑ Yes ☐ No
Eyelids: ☑ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 100, 2010	Lack of Smooth Pursuit	YES	YES
2. 100, 2024	Max. Deviation	YES	YES
3. 100, 2036	Angle of Onset	35°	35°

Vertical Nystagmus? ☐ Yes ☑ No
Convergence: Right Eye ☑ Left Eye ☑

ONE LEG STAND


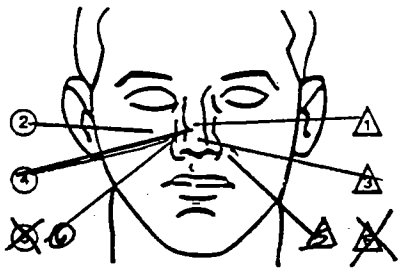
BALANCE EYES CLOSED


WALK AND TURN TEST


	1st Nine	2nd Nine
Cannot keep balance	VV	
Starts too soon		
Stops Walking		
Misses Heel-Toe	VV	
Steps off Line	VV	
Raises Arms		
Actual Steps Taken	6	

L R
☐ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☐ ☐ Puts foot down.

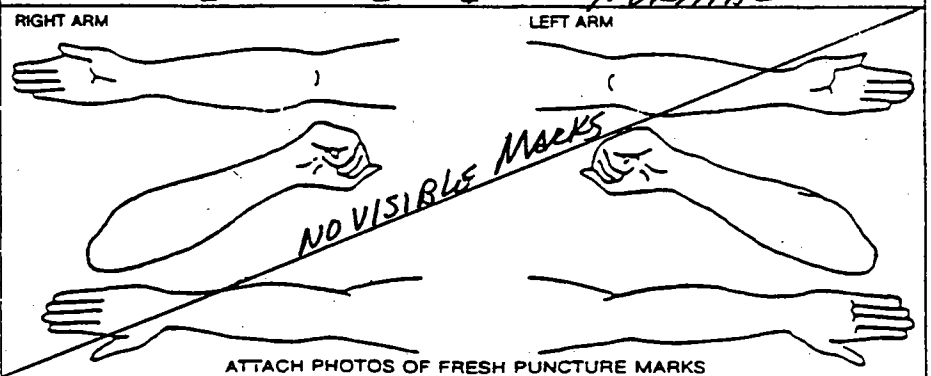
INTERNAL CLOCK: 19 Estimated as 30 sec.
Describe Turn
Cannot do Test (explain): TEST STOPPED WHEN NEARLY FELL
Type of Footwear: TENNIS SHOES

○ Right △ Left
Draw lines to spots touched


PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	5.0	6.5	6.0	4.5
Right Eye	5.0	6.5	6.0	4.5

NASAL AREA: RUNNY NOSE ODOR OF GASOLINE
ORAL CAVITY: ODOR OF GASOLINE

HIPPUS: ☐ Yes ☑ No
REBOUND DILATION: ☐ Yes ☑ No
Reaction to Light: NORMAL

RIGHT ARM / LEFT ARM


ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 146, 104
TEMP: 98.8°
MUSCLE TONE: ☑ Near Normal ☐ Flaccid ☐ Rigid
Comments:

What medicine or drug have you been using? How much? I DIDN'T SNIFF ANYTHING
Time of use? I DON'T DO GAS
Where were the drugs used? (Location) I DIDN'T DO IT TONIGHT

DATE/TIME OF ARREST: DEC 7, 1996 1920 HRS
TIME DRE NOTIFIED: 1920
EVAL START TIME: 2000
TIME COMPLETED: 2040

CONTROL #:
EXAMINING OFFICER: J. Tidwell
SERIAL NO: 617
DIVISION: CHP
UNAVAILABLE DATES:
REVIEWED BY:

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Lt. Jerry Tidwell	ARRESTEE: Adele S. Derby

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Adele S. Derby, took place in the DRE room, Central Testing Unit, Stockton P.D.

2. WITNESS: Arnie Trotter, California Office of Traffic Safety

3. BREATH TEST: Writer administered breath test to Derby, the result was 0.03%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was the arresting officer.

5. INITIAL OBSERVATIONS: Writer observed subject walking northbound in the northbound lane of traffic on State St. Vehicular traffic was moderate to heavy, and oncoming vehicles were forced to swerve to avoid her. She was staggering, stumbling, and reeling as she walked.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" in a circular manner, nearly fell and estimated 19 seconds as 30 seconds. Walk and Turn: Subject lost his balance during the instructions, staggered and nearly fell. The test was terminated for subject's safety. One Leg Stand: Test was terminated for the subject's safety. Finger to Nose: Subject was seated, and missed the tip of her nose each time. On #5 and #6 subject used the wrong finger.

8. CLINICAL INDICATORS: Subject had HGN, and Lack of Convergence. Her pulse and blood pressure were above the normal range.

9. SIGNS of INGESTION: Subject's breath had a strong odor of gasoline.

10. STATEMENTS: Subject was asked "where did you sniff the gasoline?" She replied, "I didn't sniff anything, I don't do gas." Subject was then told that there was an odor of gasoline on her breath and asked "what time did you sniff the gas?" She replied, "I didn't do it tonight."

11. OPINION of EVALUATOR: In my opinion Adele S. Derby is under the influence of an Inhalant and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS:

SESSION XX

PRACTICE: VITAL SIGNS EXAMINATIONS

SESSION XX PRACTICE: VITAL SIGNS EXAMINATIONS

Upon successfully completing this session, the participants will be able to:

- Conduct examinations of pulse, blood pressure, and temperature.
- Articulate the vital signs examination procedures.
- Document the results of the vital signs examinations.

In this session, you will have opportunities to practice taking measurements of pulse, blood pressure and temperature. You will work in a team with two or three students, taking turns measuring these vital signs on each other. When it is not you turn to serve either as the test administrator or the test subject, you should closely observe your teammate who is administering the examinations and offer any coaching that seems appropriate.

In preparation for this session, make sure you can do the following:

- Locate the radial, brachial and carotid artery pulse points.
- Position the blood pressure cuff properly on a subject's arm.

VITAL SIGNS EXAMINATIONS DATA SHEET

EXAMINER'S NAME _____

DATE 4 / 23 / 02

PULSE MEASUREMENTS

SUBJECT'S NAME John Schwenk

TIME 1236

PULSE POINT USED ~~Brachial~~ Radial

BEATS PER MINUTES 82

BLOOD PRESSURE MEASUREMENTS

SUBJECT'S NAME Sara

TIME 1239

SYSTOLIC 146

DIASTOLIC 80

SUBJECT'S NAME _____

TIME _____

PULSE POINT USED _____

BEATS PER MINUTES _____

SUBJECT'S NAME _____

TIME _____

SYSTOLIC _____

DIASTOLIC _____

SUBJECT'S NAME _____

TIME _____

PULSE POINT USED _____

BEATS PER MINUTES _____

SUBJECT'S NAME _____

TIME _____

SYSTOLIC _____

DIASTOLIC _____

SESSION XXI

CANNABIS

SESSION XXI CANNABIS

Upon successfully completing this session, the participants will be able to:

- Explain a brief history of Cannabis.
- Identify common names and terms associated with Cannabis.
- Identify common methods of administration for Cannabis.
- Explain the symptoms, observable signs and other effects associated with Cannabis.
- Explain the typical time parameters, i.e., onset and duration of effects, associated with Cannabis.
- State the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of Cannabis.
- Correctly answer the "Topics for Study" questions at the end of this session.

A. Overview of Cannabis

"Cannabis" is the category of drugs that derive primarily from various species of Cannabis plants. Two species that supply much of the abused Cannabis are Cannabis Sativa and Cannabis Indica. Some jurisdictions as well as botanists don't recognize Cannabis Indica as a separate species. The active ingredient in these drugs is:

Delta-9 Tetrahydrocannabinol
(abbreviated Δ-9 THC, or simply "THC")

THC is found principally in the leaves and flowers of the plant, rather than the stems or branches. Different varieties of Cannabis plants have different concentrations of THC. A variety that has a relatively high concentration of THC is the Sinsemilla (the unfertilized female) plant, a type of Cannabis Sativa having very tiny seeds. ("Sinsemilla" is a Spanish expression for "without seeds".)

Cannabis has some limited medical applications. It lowers intra-ocular pressure, and can be helpful for glaucoma patients. It suppresses nausea, and sometimes is recommended for cancer patients to relieve the nausea that accompanies chemotherapy.

There are four principal forms of the drug Cannabis.

Marijuana consists of the dried leaves of the plant.

Hashish basically is a concentrated version of marijuana. It is produced by crushing and boiling the leaves and allowing them to dry into a semi-solid mass.

Hashish oil is a liquid extracted from hashish. It is also known as Hash Oil.

Marinol (also known as Dronabinol) is a synthetic form of THC that is not derived from Cannabis plants. Marinol is a prescriptive drug. It is sometimes administered to cancer patients to suppress the nausea that may accompany chemotherapy. Nabilone is a synthetic form of THC and is used as an anti-vomiting agent.

Marijuana usually is smoked. Marijuana, hashish and hash oil also can be taken orally, e.g., baked in cookies or brownies and eaten. Marinol is taken orally.

B. Possible Effects of Cannabis

Cannabis appears to interfere with a person's ability or willingness to pay attention. People under the influence of marijuana do not divide their attention very well. When driving, they may attend to certain parts of the driving task but ignore other parts. For example, they may continue to steer the car but ignore stop signs, traffic lights, etc.

Because Cannabis impairs attention, divided attention tests such as Walk and Turn and One Leg Stand are excellent tools for recognizing people who are under the influence of this category of drug.

C. Onset and Duration of Cannabis' Effects

Persons begin to feel and exhibit marijuana's effects within 8-9 seconds after inhaling the smoke. The effects usually reach their peak within 10-30 minutes, and the effects generally continue for 2-3 hours. The user typically feels "normal" within 3-6 hours after smoking marijuana. There are studies that indicate that the user may be impaired long after the euphoric feelings have ceased.

It is important to understand that some blood and urine tests may continue to disclose evidence of the use of marijuana long after the effects of marijuana have dissipated. That is because certain chemical tests do not seek to find THC itself, but instead look for metabolites of THC, or chemical by-products. Some blood tests may disclose marijuana use for at least 3 days after smoking. Some urine tests may indicate the presence of THC metabolites for 28-45 days.

There are two important metabolites of THC. One of these metabolites is Hydroxy THC; this causes the user to feel euphoric so that they are aware of the effects. Hydroxy THC usually is eliminated from the blood plasma within six hours. The other important metabolite is Carboxy THC. There is no evidence at this time that this metabolite is psychoactive. Carboxy THC may be found in the blood plasma for several days following marijuana use.

D. Signs and Symptoms of Cannabis Overdose

Excessive use of marijuana can create paranoia and possible psychosis. These same effects may develop from long term use of the drug, which has also been observed to produce sharp personality changes, especially in adolescent users. Other long term effects include:

- lung damage
- chronic bronchitis
- lowering of testosterone (male sex hormone)

- o acute anxiety attacks
- o chronic reduction of attention span
- o possible birth defects, still births and infant deaths

E. Expected Results of the Evaluation

When a person under the influence of Cannabis is examined by a drug recognition expert, the following results generally can be expected.

Horizontal Gaze Nystagmus - none.

Vertical Nystagmus - none.

Lack of Convergence will be present.

Pupil size will be dilated, but possibly normal. Rebound dilation may be observed.

Pupil's reaction to light will be normal.

Pulse rate will be up.

Blood Pressure will be up.

Temperature will be normal.

Injection sites usually will not be found.

General Indicators

- o diminished inhibitions
- o impaired perception of time and distance
- o disorientation
- o body tremors
- o eyelid tremors → ~~inject eyelid~~. White part of eye
- o marked reddening of the conjunctiva of the eye
- o muscle tone is normal
- o odor of burnt marijuana on suspect's breath or clothes
- o possible marijuana debris in the suspect's mouth

Topics for study

1. What is the active ingredient in Cannabis?

2. Why are the Walk and Turn test and the One Leg Stand test excellent tools for recognizing persons under the influence of marijuana?

3. What is Marinol? What is Sinsemilla?

4. Name two important metabolites of THC, and describe how they affect the duration and perception of the effects of Cannabis.

~~Sclera~~

Sclera = Conjuctiva

EVALUATOR: GAUNT, STEVE

Page 1 of 2

DRUG INFLUENCE EVALUATION

BOOKING NO: 025 | DR: XXI-1

ARRESTEE'S NAME (LAST, FIRST, MI): CURRY, JERRY R | AGE: 56 | SEX: M | RACE: B | ARRESTING OFFICER (NAME, SERIAL #, DIV.): BURSTEN, D. 909 ISP

DATE EXAMINED/TIME/LOCATION: 11-5-96 2200 MARION CITY J.O. | BREATH RESULTS: ☐ Refused Results 0.00 Instrument # 1234 | CHEMICAL TEST: ☐ Both Tests Refused ☑ Urine ☐ Blood

MIRANDA WARNING GIVEN: ☑ Yes ☐ No Given by S. GAUNT | What have you eaten today? When? COUPLE OF HOT DOGS AROUND 5PM | What have you been drinking? How much? NOTHING AT ALL N/A | Time of last drink? N/A

Time now? ABOUT 10:30 PM | When did you last sleep? How long? LAST NIGHT 6 HRS | Are you sick or injured? ☐ Yes ☑ No HELL NO I FEEL GREAT | Are you diabetic or epileptic? ☐ Yes ☑ No NO - ARE YOU?

Do you take insulin? NO AND I DON'T TAKE A LOT OF S'T ☐ Yes ☑ No | Do you have any physical defects? ☐ Yes ☑ No HELL I'M ARNOLD SWARTZNEGGER | Are you under the care of a doctor/dentist? ☐ Yes ☑ No

Are you taking any medication or drugs? DRUGS! HELL NO! ☐ Yes ☑ No | ATTITUDE BOISTEROUS BUT FAIRLY COOPERATIVE | COORDINATION NEARLY FELL SEVERAL TIMES

SPEECH LOUD & BOISTEROUS | BREATH ODOR OF MARIJUANA | FACE FLUSED AND SWEATY

CORRECTIVE LENS: ☑ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft

Eyes: ☐ Normal ☑ Bloodshot ☑ Watery

Blindness: ☑ None ☐ L. Eye ☐ R. Eye

Tracking: ☑ Equal ☐ Unequal

PUPIL SIZE: ☑ Equal ☐ Unequal (explain)

HGN Present: ☐ Yes ☑ No

Able to follow stimulus: ☑ Yes ☐ No

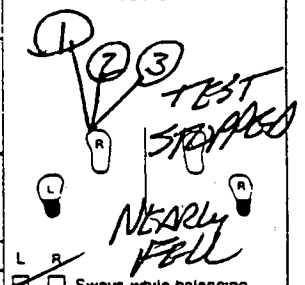
Eyelids: ☑ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 106 / 2210	Lack of Smooth Pursuit	NO	NO
2. 106 / 2227	Max. Deviation	NO	NO
3. 104 / 2240	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☑ No

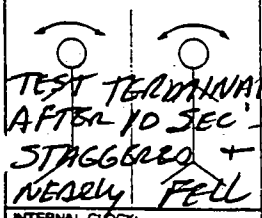
Convergence: Right Eye ☑ Left Eye ☑

ONE LEG STAND



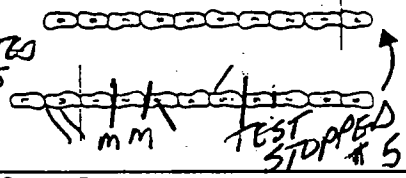
TEST STOPPED NEARLY FELL

BALANCE EYES CLOSED



TEST TERMINATED AFTER 10 SEC'S STAGGERED + NEARLY FELL

WALK AND TURN TEST LEGS SHAKING BADLY NEARLY FELL



Cannot keep balance VV

Starts too soon

	1st Nine	2nd Nine
Stops Walking		
Misses Heal-Toe	VV	
Steps off Line	✓	
Raises Arms		
Actual Steps Taken		

L R
☑ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☑ ☐ Puts foot down.

INTERNAL CLOCK: N/A Estimated as 30 sec.

Describe Turn: N/A

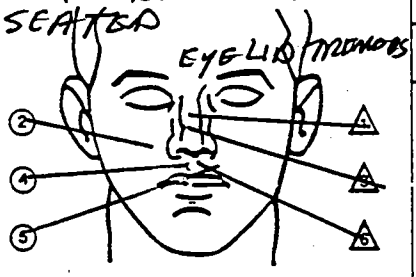
Cannot do Test (explain) NEARLY FELL TEST TERMINATED

Type of Footwear: LOAFERS

○ Right △ Left

Draw lines to spots touched

TEST ADMINISTERED SEATED



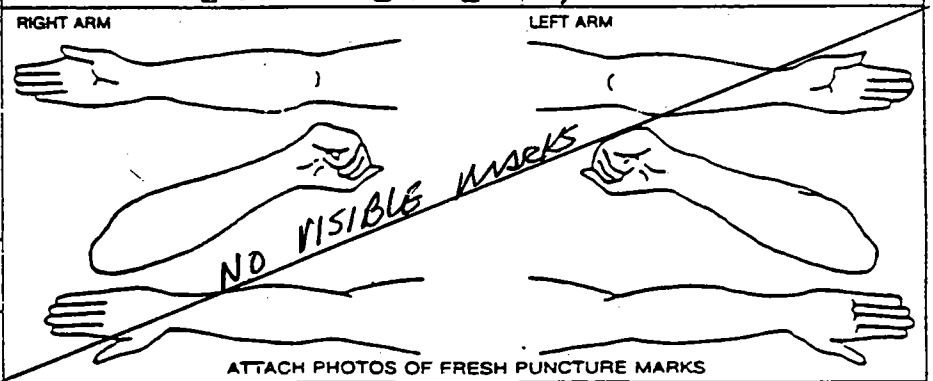
PUPIL SIZE	Room Light	Darkness	Indirect	Direct	NASAL AREA
Left Eye	5.5	7.0	6.5	5.0-6.5	clear
Right Eye	5.5	7.0	6.5	5.0-6.5	ORAL CAVITY clear

HIPPUS: ☐ Yes ☑ No

REBOUND DILATION: ☑ Yes ☐ No

Reaction to Light: NORMAL

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 154 / 106 TEMP: 98.6°

MUSCLE TONE: ☑ Near Normal ☐ Flaccid ☐ Rigid

Comments:

What medicine or drug have you been using? DON'T HASSLE ME THIS IS BS | How much? NOT MUCH JUST A LITTLE | Time of use? NO I AIN'T SAYING NO MORE | Where were the drugs used? (Location) NO ANSWER

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
11-5-96 2115	2150	2200	2245

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	S. Gaunt	2222	ISP		RICHARDSON

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Sgt. Steve Gaunt	ARRESTEE: Jerry R. Curry

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Jerry R. Curry, took place in the DRE room, Marion County Jail.

2. WITNESS: Arresting Officer: Trooper David Bursten, Indiana State Police

3. BREATH TEST: Arresting officer administered breath test to Curry, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio and advised to return to the holding facility to conduct a DRE evaluation. Trooper Bursten stated he had observed the subject for operating a vehicle at a high rate of speed east bound on Purdue Ave. and weaving around slower traffic. Subject seemed unconcerned about being stopped and readily admitted driving fast. Subject stated, "I'm just out to enjoy myself tonight!"

5. INITIAL OBSERVATIONS: Writer observed subject seated in the breathalyzer room and was laughing loudly and repeatedly saying "The machine says I'm not drunk." There was also reddening of the conjunctiva.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject unable to perform test, and it was terminated for his safety. Walk and Turn: Subject unable to perform test, and it was terminated for his safety. One Leg Stand: Subject unable to perform test, and it was terminated for his safety. Finger to Nose: Subject was seated and missed the tip of his nose on each attempt. Subject also exhibited eyelid tremors.

8. CLINICAL INDICATORS: Subject had lack of convergence, pupils were dilated in near total darkness and rebound dilation was observed. Subject's pulse and blood pressure were above the normal range.

9. SIGNS of INGESTION: Subject's breath had an odor of marijuana.

10. STATEMENTS: Subject initially denied using any drugs. When told he looked and acted like someone who had smoked marijuana, he gigled and said, "come on, don't hassle me: this is bullshit." When asked how much pot he smoked, he replied, "not much just a little." When asked where he smoked, subject paused and said, "No, I ain't saying no more."

11. OPINION of EVALUATOR: In my opinion Jerry R. Curry is under the influence of a Cannabis and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS: Subject maintained a jovial and boisterous attitude throughout the entire evaluation

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: JOHN, CLARK

BOOKING NO.: 027

DR: XXI-2

ARRESTEE'S NAME (LAST, FIRST, MI): PELTIER, CHARLES E

AGE: 31 | SEX: M | RACE: B

ARRESTING OFFICER (NAME, SERIAL #, DIV.): GRAHAM, G, 723 CHP

DATE EXAMINED/TIME/LOCATION: 9-11-96 2320 PARKER CTR LAPD

BREATH RESULTS: Refused — Results 0.06 — Instrument # 1234

CHEMICAL TEST: Urine — Blood — Both Tests Refused

MIRANDA WARNING GIVEN: Yes — Given by: C/ JOHN — No

What have you eaten today? When? CHICKEN CHOW MEIN 3 HRS AGO

What have you been drinking? How much? COUPLE GLASSES OF WINE 2

Time of last drink? 2 HRS AGO

Time now? I HAVE NO IDEA

When did you last sleep? How long? LAST NIGHT I THINK 5 HRS

Are you sick or injured? NO AND I'M NOT DRUNK EITHER — Yes — No

Are you diabetic or epileptic? NO WHY DONT YOU LET ME GO — Yes — No

Do you take insulin? I DON'T TAKE ANYTHING — Yes — No

Do you have any physical defects? — Yes — No

Are you under the care of a doctor/dentist? — Yes — No

Are you taking any medication or drugs? OF COURSE NOT — Yes — No

ATTITUDE: IMPATIENT ANXIOUS COOPERATIVE

COORDINATION: VERY POOR DISORIENTED STUMBLING

SPEECH: SLOW SLURRED

BREATH: ODOR OF AN ALCOHOLIC BEVERAGE

FACE: NORMAL

CORRECTIVE LENS: None — Glasses — Contacts, if so — Hard — Soft

Eyes: VERY BLOODSHOT — Normal — Bloodshot — Watery

Blindness: None — L. Eye — R. Eye

Tracking: Equal — Unequal

PUPIL SIZE: Equal — Unequal (explain)

HGN Present: Yes — No

Able to follow stimulus: Yes — No

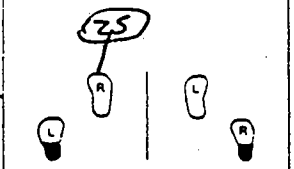
Eyelids: Normal — Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 110 / 2330	Lack of Smooth Pursuit	YES	YES
2. 112 / 2342	Max. Deviation	YES	YES
3. 110 / 2353	Angle of Onset	NONE	NONE

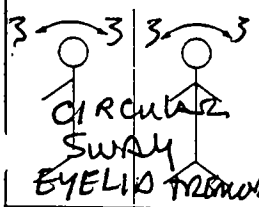
Vertical Nystagmus? — Yes — No

Convergence: Right Eye — Left Eye

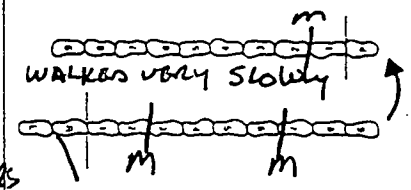
ONE LEG STAND: LEG TREMORS



BALANCE EYES CLOSED



WALK AND TURN TEST: LEG TREMORS



	1st Nine	2nd Nine
Cannot keep balance	✓	
Starts too soon		
Stops Walking		
Misses Heal-Toe	VV	V
Steps off Line	V	
Raises Arms	VV	VVV
Actual Steps Taken	9	9

L R — Sways while balancing.

Uses arms to balance.

Hopping.

Puts foot down.

INTERNAL CLOCK: 42 Estimated as 30 sec.

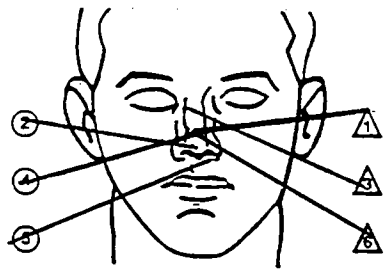
Describe Turn: STAGGERED 2 STEPS TO THE RIGHT

Cannot do Test (explain): N/A

Type of Footwear: RUNNING SHOES

Right — Left

Draw lines to spots touched



PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	5.5	7.5	6.5	5.0
Right Eye	5.5	7.5	6.5	5.0

NASAL AREA: CLEAR

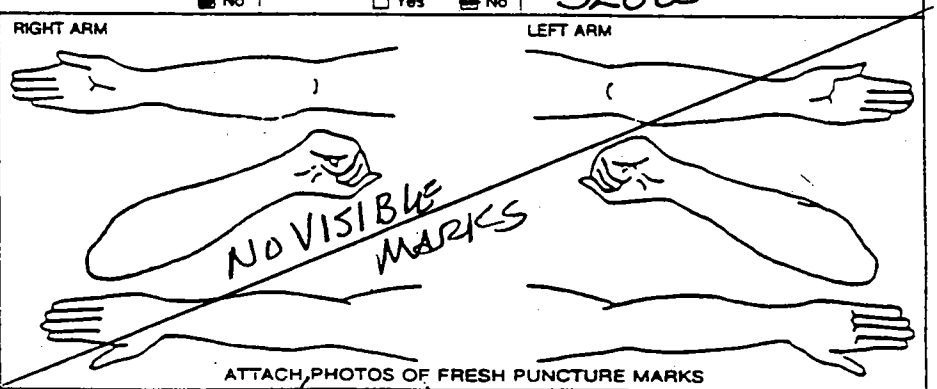
ORAL CAVITY: BROWNISH COATING ON TONGUE

HIPPUS: Yes — No

REBOUND DILATION: Yes — No

Reaction to Light: SLOW

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 148 / 100 TEMP: 98.4°

MUSCLE TONE: Near Normal — Flaccid — Rigid

Comments:

What medicine or drug have you been using? How much? I HAD A FEW GLASSES OF WINE THATS ALL

Time of use? SMIRKING CAN'T BS A BSER

Where were the drugs used? (Location) OH COME ON I'M NOT GONNA TELL

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
9-11-96 2245	2315	2320	2358

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	Clark John	2222	LAPD		Richardson, L

DRUG INFLUENCE EVALUATION Page 2 of 2

LOG NO.	DRE: Sgt. Clark John	ARRESTEE: Charles E. Peltier

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Charles E. Peltier, took place in the DRE room, Parker Center, LAPD

2. WITNESS: Arresting Officer was Sgt. Gordon Graham, CHP

3. BREATH TEST: Sgt. Graham administered breath test to Peltier, the result was 0.06%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio and advised to return to Parker Center to conduct a DRE evaluation. Sgt. Graham stated he had observed the subject traveling southbound on the San Diego Fwy. operating a vehicle with no head or tail lights. Upon stopping the vehicle, the subject stated, "hey I can see fine I don't need any f'ing lights cowboy!" Subject further stated "cute little bow tie --- you must be Little Bow Peep.

5. INITIAL OBSERVATIONS: Writer observed the subject seated in the breath testing room. Subject appeared anxious, impatient, and several times asked to be "let go". Generally he was polite and cooperative. His speech was slow and slurred, and he stumbled while walking,

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" in a circular motion, and exhibited eyelid tremors, and estimated 42 seconds as 30 seconds. Walk and Turn: Subject lost his balance during the instructions, staggered while turning, raised arms and missed heel to toe.

One Leg Stand: Subject raised his arms, swayed, put his foot down, and exhibited leg tremors. Finger to Nose: Subject missed tip of his nose five times and exhibited eyelid tremors.

8. CLINICAL INDICATORS: Subject's pulse and blood pressure were above the normal range. His pupils were dilated, there was lack of convergence, and HGN was present. There was also a reddening of the conjunctiva.

9. SIGNS of INGESTION: Subject had a brownish coloration on his tongue.

10. STATEMENTS: Subject admitted to drinking "a few glasses of wine" When subject was asked, "when did you smoke the marijuana?" He responded, "I guess I can't bullshit a bullshitter, can I?" "marijuana? who me?" and then laughed. When asked where he had used the marijuana, the subject replied, "oh, come on, I'm not going to tell you."

11. OPINION of EVALUATOR: In my opinion Charles E. Peltier is under the influence of Alcohol and Cannabis and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS:

EVALUATOR: MIKE PRYOR

Page 1 of 2

DRUG INFLUENCE EVALUATION

BOOKING NO: 0246 | DR: XXI - 3

ARRESTEE'S NAME (LAST, FIRST, MI)	AGE	SEX	RACE	ARRESTING OFFICER (NAME, SERIAL #, DIV.)
WRIGHT, JAMES B	40	M	W	KENNEDY, B 8132 NYSP

DATE EXAMINED / TIME / LOCATION	BREATH RESULTS	CHEMICAL TEST
12-7-96 2300 COLONIE PD	☐ Refused Results 0.00 Instrument # 1234	☒ Urine ☐ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN	What have you eaten today? When?	What have you been drinking? How much?	Time of last drink?
☒ Yes ☐ No Given by: B. KENNEDY	COUPLE of BURGERS 7PM	NOTHING I DON'T DRINK	N/A

Time now?	When did you last sleep? How long?	Are you sick or injured?	Are you diabetic or epileptic?
ABOUT MIDNIGHT	LAST NIGHT 9 HRS	☐ Yes ☒ No I'M JUST FINE	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor/dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

Are you taking any medication or drugs?	ATTITUDE	COORDINATION
☐ Yes ☒ No OF COURSE NOT	RELAXED, CAREFREE GENERALLY COOPERATIVE	POOR STUMBLING

SPEECH	BREATH	FACE
SLOW DELIBERATE	ODOR of MARIJUANA	NORMAL

CORRECTIVE LENS:	Eyes:	Blindness:	Tracking:
☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	☐ Normal ☒ Bloodshot ☐ Watery	☒ None ☐ L. Eye ☐ R. Eye	☒ Equal ☐ Unequal

PUPIL SIZE:	HGN Present:	Able to follow stimulus:	Eyelids:
☒ Equal ☐ Unequal (explain)	☐ Yes ☒ No	☒ Yes ☐ No	☒ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 108 , 2307	Lack of Smooth Pursuit	NO	NO
2. 110 , 2318	Max. Deviation	NO	NO
3. 108 , 2325	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☒ No

Convergence: Right Eye ✓ Left Eye ✓

ONE LEG STAND: 16 (L) 19 (R) — COUNTED VERY SLOWLY

BALANCE EYES CLOSED: 2 2 2 2 — CIRCULAR SWAY, EYELID TREMORS

WALK AND TURN TEST: INSTRUCTION HAD TO BE REPEATED TWICE — NEVER TOUCHED HEEL-TOE

	1st Nine	2nd Nine
Cannot keep balance	✓	
Starts too soon	✓	
Stops Walking		
Misses Heal-Toe	ALL STEPS	ALL STEPS
Steps off Line		
Raises Arms	VV	VV
Actual Steps Taken	9	9

ONE LEG STAND: ☐ L ☐ R Sways while balancing; ☐ L ☒ R Uses arms to balance; ☐ L ☐ R Hopping; ☒ L ☒ R Puts foot down.

INTERNAL CLOCK:	Describe Turn	Cannot do Test (explain)	Type of Footwear
51 Estimated as 30 sec.	ABRUPT SWIVEL ABOUT FACE	N/A	LOAFERS

○ Right △ Left — Draw lines to spots touched

EYE LID TREMORS CHUCKLING THROUGHOUT TEST

MOVED ARMS VERY SLOWLY

PUPIL SIZE	Room Light	Darkness	Indirect	Direct	NASAL AREA
Left Eye	6.0	7.5	6.5	5P-6.5	CLEAR
Right Eye	6.0	7.5	6.5	5.0-6.5	ORAL CAVITY BITS OF GREEN LEAFY MATERIAL

HIPPUS	REBOUND DILATION	Reaction to Light
☐ Yes ☒ No	☒ Yes ☐ No	NORMAL

RIGHT ARM / LEFT ARM — NO VISIBLE MARKS

ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE	TEMP
140 / 96	98.8 °

MUSCLE TONE: ☒ Near Normal ☐ Flaccid ☐ Rigid

Comments:

What medicine or drug have you been using? How much?	Time of use?	Where were the drugs used? (Location)
"SMOKE ?? "WHO ME? HAH HAH HAH"	OH I DON'T KNOW	OH GEE I CAN'T REMEMBER

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
12-7-96 2230	2240	2300	2330

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	MIKE PRYOR	2238	TPD		JACQUETTE

DRUG INFLUENCE EVALUATION		Page 1 of 2
LOG NO.	DRE: Sgt. Mike Pryor	ARRESTEE: James B. Wright

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of James B. Wright, took place in the DRE room, Colonie Police Department

2. WITNESS: Arresting Officer Trooper Brian Kennedy, NYSP

3. BREATH TEST: Trooper Kennedy administered breath test to Wright, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio and advised to return to the Department to conduct a DRE evaluation. Trooper Kennedy stated he had observed the subject operating a vehicle at a very slow rate of speed (15/55) southbound on St. Rt 22. When the emergency lights were activated, subject's vehicle slowly drifted left, crossing the northbound lane, through a low hedge and finally coming to rest in a corn field. Subject climbed out of the vehicle laughing.

5. INITIAL OBSERVATIONS: Writer observed the subject seated int he breath testing room. Subject was humming softly. While interviewing Trooper Kennedy, the subject shouted, "Hey Brian, tell him about my wild ride tonight!"

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 2" in a circular motion, and exhibited eyelid tremors, and estimated 51 seconds as 30 seconds. Walk and Turn: Subject lost his balance during the instructions, started walking to soon, raised arms repeatedly, and never touched heel to toe. Subject twice requested that the instructions be repeated. One Leg Stand: Subject raised his arms, put his foot down, and swayed. Finger to Nose: Subject missed tip of his nose each time.

8. CLINICAL INDICATORS: Subject's pulse and blood pressure were above the normal range. His pupils were dilated they exhibited rebound dilation and there was lack of convergence.

9. SIGNS of INGESTION: Subject's breath had an odor of marijuana and there were bits of green vegetation on tongue and between the teeth.

10. STATEMENTS: Subject was asked, "when did you smoke the marijuana?" He responded, "what? smoke marijuana? who me?" and then laughed. When asked where he had used the marijuana, the subject replied, "oh, I don't know. Oh gee, seriously, I can't remember."

11. OPINION of EVALUATOR: In my opinion James B. Wright is under the influence of Cannabis and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS: Subject exhibited eyelid tremors and chuckled throughout the evaluation.

SESSION XXII

OVERVIEW OF SIGNS AND SYMPTOMS

SESSION XXII OVERVIEW OF SIGNS AND SYMPTOMS

Upon successfully completing this session, the participants will be able to:

- Name the possible effects that may be observed in each major indicator of drug impairment.
- Identify the effects that will most likely be observed with suspects under the influence of each drug category.

Summarizing What We've Learned About The Effects of Each Category:
An Exercise For The Student

We have now completed a detailed review of all seven drug categories. In this session, we will summarize what we've learned about the major indicators of drug impairment that DREs rely upon to form their opinions. We will also summarize how each drug category usually "discloses itself" on those major indicators.

The major indicators of impairment consist of eight items:

- Horizontal Gaze Nystagmus
- Vertical Nystagmus
- Lack of Convergence
- Pupil Size
- Pupil Reaction to Light
- Pulse Rate
- Blood Pressure
- Body Temperature

As a DRE, you will evaluate each of these indicators for every suspect you examine. What are the possible things that you may observe for each indicator? For example, what are the possible things that you may observe when you check a suspect for Horizontal Gaze Nystagmus? What are the possible things that you may observe when you check the suspect's blood pressure?

With HGN, there are only two possibilities: either it will be **Present** (i.e., the eyes will jerk) or **Not Present** (i.e., the eyes will move smoothly). Some drugs induce nystagmus, others do not; there is no drug that "cures" nystagmus. With Blood Pressure, there are three different things we might observe: it may be up, down, or it may be normal. Some drug categories elevate the blood pressure, others lower it; if a person is under the influence of two different drug categories, one that raises Blood Pressure and one that lowers it, it is possible that the two drugs will partly off-set each other, and the BP may be normal.

What about the other six major indicators? What are the possible things we may find with each of them? **Before you turn to the next page**, try to complete the list of possibilities we've started below:

Horizontal Gaze Nystagmus?	**PRESENT or NONE**
Vertical Nystagmus?	
Lack of Convergence?	
Pupil Size?	
Reaction to Light?	
Pulse Rate?	
Blood Pressure?	**UP, DOWN, NORMAL**
Body Temperature?	

How did you do? Your completed list, on the previous page, should look something like this:

Indicator	Possible Effects
Horizontal Gaze Nystagmus?	**PRESENT or NONE**
Vertical Nystagmus?	**PRESENT or NONE**
Lack of Convergence?	**PRESENT or NONE**
Pupil Size?	**DILATED or NORMAL or CONSTRICTED**
Reaction to Light?	**NORMAL, SLOW, or LITTLE OR NONE VISIBLE**
Pulse Rate?	**UP or DOWN or NORMAL**
Blood Pressure?	**UP or DOWN or NORMAL**
Body Temperature?	**UP, DOWN, or NORMAL**

Next, your instructors will expect you to be able to state how each category of drugs usually affects each of the eight major indicators. This is information that was first covered in your PRE-School, and covered in even greater detail earlier in this School. In the table below, we've listed what we can usually expect to see in suspects who are under the influence of CNS Depressants. Try to fill in the rest of the table before Session XXII is given in class.

WHAT WILL WE USUALLY SEE IN OUR SUSPECTS?

	Depress	Stimul	Halluc	Phencyc	Narcot	Inhalant	Cannabis
HGN	present						
Vert Nystag	present *(high dose)						
Lack Conv	present						
Pupil	normal (1)						
React Light	slow						
Pulse Rate	down (2)						
Blood Press	down						
Body Temp	normal						

* high dose for that individual
(1)Soma and Quaaludes usually dilate pupils
(2)Quaaludes and ETOH may elevate

The attachment, Comparison of DRE Symptomatology With Cross Section of Drug Symptomatology Sources, is a small portion of the available scientific literature addressing drug influence. The Synopsis is consistent with the DRE training.

COMPARISON OF DRE SYMPTOMATOLOGY WITH CROSS SECTION OF DRUG

SYMPTOMATOLOGY SOURCES

CNS DEPRESSANTS:

DRE Symptomatology:	
Nystagmus	decreased pulse
decreased blood pressure	uncoordinated
disoriented	sluggish
thick slurred speech	drunk-like appearance

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, Barbiturates, pages 546-547:

Nystagmus	Strabismus
difficulty in visual accommodation	
vertigo	ataxia gait
positive Romberg sign	Hypotonia
Dysmetria	Diplopia
sluggishness	difficulty in thinking
slowness, slurring of speech	poor comprehension
poor memory	faulty judgement
emotional lability	

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 6th Ed. 1992, pp. 61-63.

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed. , Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989. p.19.

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984), page 36: barbiturates effects like alcohol (staggering, poor motor control).

Drug Abuse and Dependence, Grinspoon, Lester,MD; Bakalar,James B., Harvard Medical School Mental Health Review No. 1 (1990), page 11: sedative hypnotics same as alcohol and other depressants

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey (1989), page 72: Benzodiazepines same as barbiturate effects; pages 247; 292): Barbiturates:

Nystagmus	depressed pulse
depressed blood pressure	diminished concentration
incoordination	decreased reaction time

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D.. Ph.D..D Plenum Medical Book Company, New York (1988), p. 135.

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 159

Maladaptive behavioral changes, e.g., disinhibition of sexual or aggressive impulses, mood lability, impaired judgment, impaired social or occupational functioning.

slurred speech	incoordination
unsteady gait	impairment in attention or memory

CNS STIMULANTS:

DRE Symptomatology:	
dilated pupils	increased pulse rate
increased temperature	increased blood pressure
body tremors	restlessness
excited	euphoric
talkative	exaggerated reflexes
anxiety	grinding teeth
redness to nasal area	runny nose
loss of appetite	insomnia
increased alertness	

The Pharmacological Basis of Therapeutics, Seventh Edition,

Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, Cocaine 551-554

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988, Amphetamines, Page 634:

Mild influence:

Mydriasis	hyperreflexia
restlessness	talkativeness
irritability	insomnia
tremor	flushing
Diaphoresis	combativeness
nausea	vomiting
pallor	dry mucous membranes

Moderate:

hyperactivity	confusion
hypertension	Tachypnea
Tachycardia	premature ventricular contraction
chest discomfort	vomiting
abdominal pain	Profuser Diaphoresis
mild temperature elevation	impulsivity
repetitive behavior	hallucinations
panic reactions	

Serious:

delirium	marked Hypertension/Tachycardia
Hyperreflexia	convulsions
Hypotension	coma

Cocaine, page 650-659

Early Stimulation:

euphoria	Garrulity
excitement	apprehension
irritable behavior	Mydriasis
sudden headache	nausea
vomiting	dizziness
twitching of small muscles	tics
tremor	jerks
Cocaine Psychosis	hallucinations
elevation of pulse	increased respiration

Advanced:

convulsions	Hyperreflexia
decreased consciousness	increased pulse and blood pressure

Later Stages:

Hypotension	Hypothermia
Dyspnea et al	

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 1992, pages 120-123: Amphetamines and cocaine (CNSS):

dilation of pupils	increased blood pressure
slight tremor	restlessness
agitation	possibly hallucinations

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed. , Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989, page 99: CNSS cause:

dilation of pupils	rapid heart rate
elevation of blood pressure	tremor in hands
increased body temperature	restlessness

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984), pages 25, 121: Amphetamine:

dilation of pupils	increase heart rate
blood pressure	flushing
teeth grinding	dry mouth
tremors	lack of coordination

pages 64, 100, 121:

dilation of pupils	increased heartbeat
increased temperature	similar to Amphetamine

Drug Abuse and Dependence, Grinspoon, Lester,MD; Bakalar,James B., Harvard Medical School Mental Health Review No. 1 (1990), pages 8 and 10 Cocaine and Amphetamine:

dilated pupils	increased pulse
increased blood pressure	vasoconstriction
agitation tremors	increased temperature

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey(1989), page 29 Amphetamines:

pupil dilation (Mydriasis)	increased pulse rate
elevated blood pressure	hyperactive
talkative	irritable
restless	Anorexia
tremors	urinary retention
teeth grinding (Bruxism)	fidgety, jerky, random motions
illogical, loose thoughts	

Page 295: Cocaine:

dilated pupils	Tachycardia
increased blood pressure	vasoconstriction
Hyperpyrexia	

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D.. Ph.D..D Plenum Medical Book Company, New York (1988) page 142: Amphetamine:

increased pulse	increased blood pressure
possibly increased temperature	increased wakefulness
general increase in psychomotor activity	

page 145: Cocaine

Mydriasis (dilated pupils);	may cause psychosis
euphoria	agitation

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 142.

COCAINE:
Maladaptive behavioral changes, e.g., euphoria, fighting, grandiosity, hyper-vigilance, psychomotor agitation, impaired judgment, impaired social or occupational functioning.

pupillary dilation	Tachycardia
elevated blood pressure	perspiration or chills
nausea or vomiting	visual or tactile hallucinations

AMPHETAMINE
Maladaptive behavioral changes, e.g., fighting, grandiosity, hyper-vigilance, psychomotor agitation, impaired judgment, impaired social or occupational functioning.

pupillary dilation
elevated blood pressure
nausea or vomiting
Tachycardia
perspiration or chills

HALLUCINOGENS:

DRE Symptomatology:
dilated pupils
increased blood pressure
dazed appearance
Synesthesia
paranoia
nausea
difficulty in speech
poor perception of time/distance
increased pulse rate
increased temperature
body tremors
hallucinations
uncoordinated
disoriented
perspiring

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, LSD and Related Drugs, page 564

pupillary dilation
Tachycardia
tremor
Piloerection
increased body temperature
Hyper vigilance
loss of boundaries
increased blood pressure
Hyperreflexia
nausea
muscular weakness
hallucinations
Synesthesia

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988, LSD, pages 667-669:

pupillary dilation
increased body temperature
weakness
Hyperreflexia
hallucinations
poor judgment
increased heart rate
Piloerection
tremor
Ataxia
depersonalization
mood swings

A Primer of Drug Action, Julien, Robert M.; W. H. Freeman and Company, New York, 1992

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed.), Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989 page 160:

dilated pupils	increased blood pressure
increased awareness	faltered body images
sensory input	fine tremor
flushed face	increased body temperature

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, Inc New York (1984), pages 100; 115 120, 153): Hallucinogens:

dilated pupils	increased heart rate
increased blood pressure	increased temperature
profuse perspiration	loss of appetite
hallucinations	

Drug Abuse and Dependence, Grinspoon, Lester,MD; Bakalar,James B., Harvard Medical School Mental Health Review No. 1 (1990)

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey (1989), page 218: LSD:

Ataxia	high blood pressure
Hyperreflexia	incoordination
Tachycardia	

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Plenum Medical Book Company, New York (1988)

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 145.

Maladaptive behavioral changes, e.g., marked anxiety or depression, ideas of reference, fear of losing one's mind, paranoid ideation, impaired judgment, impaired social or occupational functioning.

Perceptual changes occurring in a state of full wakefulness and alertness, e.g., subjective intensification of perceptions, depersonalization, derealization, illusions, hallucinations, Synesthesia

pupillary dilation	Tachycardia
sweating	palpitations
blurring of vision	tremors
incoordination	

PHENCYCLIDINE

DRE Symptomatology:

Nystagmus	increased pulse
increased blood pressure	increased temperature
perspiring	warm to the touch
blank stare	early onset of nystagmus
"moon walking"	difficulty in speech
incomplete responses	repetitive response
repetitive speech	increased pain threshold
cyclic behavior	confused, agitated
hallucinations	possibly violent and combative

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, PCP, page 565-567

Nystagmus	elevated heart rate
elevated blood pressure	feeling of intoxication
staggering gait	slurred speech
numbness of extremities	sweaty
muscular rigidity	blank stare
drowsiness	hostile behavior
repetitive movements	

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988, PCP 768-777:

Nystagmus	Miosis
depressed light reflexes	blurred vision
diminished pain	Ataxia
tremors	muscle weakness
slurred speech	drowsiness
increased pulse rate	increased blood pressure
Amnesia	anxiety/agitation
body image distortion	euphoria
depersonalization	disordered thought processes
hallucinations	

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 1992, page 262: PCP:

increased blood pressure	blank stare
disinhibition	mood swings
muscle rigidity	agitation
delirium excitement	disorientation
hallucinations	analgesia
speech difficulty	pain tolerance
elevated blood pressure	

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed.), Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989 p. 178

sweating	muscle rigidity
fever convulsions	increased blood pressure

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984), page 100, 208: PCP:

Nystagmus	increased blood pressure
increased pulse rate	flushing
mood swings	hallucinations
changes in body awareness	speech difficulties
violent behavior	decreased responsiveness

Drug Abuse and Dependence, Grinspoon, Lester, M.D.; Bakalar, James B., Harvard Medical School Mental Health Review No. 1 (1990), page 25: PCP:

body image distortions	increased blood pressure
Nystagmus	muscle rigidity
loss of muscle control	incoherent speech
memory loss drooling	blank stare

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey(1989) page 296: PCP:

Nystagmus	disorientation
hallucination	extreme agitation
loss of motor control	disassociation from
automated speech	environment
Nystagmus at rest	

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D. Ph.D.D Plenum Medical Book Company, New York (1988), page 156: PCP:

Ataxia
muscular hypertonicity
Ptosis
Horizontal, Vertical
and Rotary Nystagmus
elevated blood pressure
mood swings
tremors,
Hyperreflexia
Tachycardia

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 155.

Maladaptive behavioral changes, e.g., belligerence, assaultiveness, impulsiveness, unpredictability, psychomotor agitation, impaired judgment, impaired social or occupational functioning.

Vertical or Horizontal Nystagmus
increased blood pressure or heart rate
numbness or diminished responsiveness to pain.
Ataxia
Dysarthria (slurred speech)
muscle rigidity
seizures
Hyperacusis

NARCOTICS:

DRE Symptomatology:
constricted pupils
decreased blood pressure
droopy eyelids
drowsiness
low, raspy speech
facial itching
fresh puncture marks
decreased pulse rate
decreased temperature
(Ptosis) "on the nod"
depressed reflexes
dry mouth
euphoria

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, Opiods page 541-545

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988; Heroin, pages 702-703. See also Methadone, Demerol, etc.:

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 1992, page 196-198: Morphine:

constructed pupils
drowsiness
mental clouding
depressed respiration
euphoria
decreased blood pressure
Dysphoria
sedation
Analgesia

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed., Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989

Decrease pain (p.6)

Encyclopedia of Drug Abuse, O'Brien, Robert,Cohen, Sydney. M.D. Facts on File, INC New York (1984) page 100, 120, 123, 124: Narcotics:

constricted pupils
Analgesia
euphoria
reduced heart rate
depressed appetite
going "on the nod"

Drug Abuse and Dependence, Grinspoon, Lester,MD; Bakalar,James B., Harvard Medical School Mental Health Review No. 1 (1990), page 14: Narcotics:

constricted pupils
dreamy state
euphoria
"nodding off"
pain suppression

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey (1989) page 293 - 294:

Miosis (constricted pupils)
Hypothermia
decreased temperature)
drowsiness lethargy
flaccid muscle tone
Analgesia
Bradycardia
(decreased heart beat)
euphoria/dysphoria
confusion
depressed respiration

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D.. Ph.D..D Plenum Medical Book Company, New York (1988), page 132

Miosis (constricted pupils)
itching
low blood pressure
flushing sweating

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 152.

Maladaptive behavioral changes, e.g., initial euphoria followed by apathy, dysphoria, psychomotor retardation, impaired judgment, impaired social or occupational functioning.

pupillary constriction	drowsiness
slurred speech	impairment in attention or memory

INHALANTS:(Toluene)

DRE Symptomatology:

Nystagmus	increased pulse rate
increased blood pressure	residue around nose
odor on mouth	nausea disorientation
slurred speech	confusion

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, Inhalants, page 567

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed. , Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989. p. 185

decreased inhibitions	floating sensation
drowsiness	light sensitivity
sneezing runny nose	

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984)

lowered inhibitions	restlessness
incoordination confusion	disorientation
nausea	impaired judgment

Drug Abuse and Dependence, Grinspoon, Lester,MD; Bakalar,James B., Harvard Medical School Mental Health Review No. 1 (1990)

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey(1989), pages 265, 272, 297: Toluene:

Nystagmus
tremors cerebellar
rambling speech
light headedness
CNS depression that mimics
Narcotic Analgesics
blank stare
euphoric mood
mental dulling
Ataxia
irritability
tremors
Ataxia

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D.. Ph.D..D Plenum Medical Book Company, New York (1988)

brief euphoria
giddy intoxication, similar to alcohol
CNS depression (volatile solvents/toluene)
dizziness
Vertigo

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 149.

Maladaptive behavioral changes, e.g., belligerence, assaultiveness, apathy, impaired judgment, impaired social or occupational functioning.

Nystagmus
incoordination
unsteady gait
depressed reflexes
tremor generalized muscle
stupor or coma
euphoria
dizziness
slurred speech
lethargy
psychomotor retardation
blurred vision or diplopia
weakness

CANNABIS

DRE Symptomatology:
dilated pupils
odor of Marijuana
body tremors
relaxed inhibitions
paranoia
impaired perception of time and distance
marked reddening of conjunctivae
debris in mouth
eyelid tremors
increased appetite
disorientation

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, Cannabis, pages 559-561

euphoria	short term memory impairment
temporal disintegration	balance and stance impairment
information processing impairment	increased hunger
dry mouth	additive to alcohol

Lower doses
affects perception, impairing well beyond when subject subjectively feels effects; alters all information processing; relatively simple motor skills unaffected

High doses:

anxiety	hallucinations
increased heart rate	increased systolic blood pressure
marked reddening of Conjunctiva	simple motor skills affected

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988; Cannabis, page 678-681

reddening of Conjunctiva	alteration in mood
motor coordination impairment	euphoria
relaxation	sleepiness
temporal distortion (time slows)	decrease in balance, steadiness and muscle strength
impairment of motor tasks and reaction times requires higher dosages	
loss of short term memory	elective attention
systematic thinking impaired	stimulated appetite
dry mouth	

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 1985 : page 178, Marijuana

reddening of Conjunctiva
increased blood pressure
dry mouth
altered sensory perception

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed. , Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989, page 145: Cannabis:

- red Conjunctiva
- relaxation
- increased heart rate
- time distortion
- impairment in ability to do multi-step tasks
- decrease level of motor coordination
- euphoria
- dry mouth
- possibly Nystagmus
- short term memory
- tremors

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984), pages 100, 120: Marijuana:

- red eye
- increased heart beat
- dryness of mouth and throat
- increased pulse rate
- increased appetite
- time and space distortions
- increased heart rate
- lack of coordination

Drug Abuse and Dependence, Grinspoon, Lester,MD; Bakalar,James B., Harvard Medical School Mental Health Review No. 1 (1990).page 19: Marijuana:

- increased appetite
- bloodshot eyes
- agitation
- hallucinations
- faster heartbeat
- confusion
- incoordination

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey(1989), page 296: Cannabis:

- red Conjunctiva
- pleasant relaxation
- slowed time
- apathy
- problems with motor coordination
- increased appetite
- intensification of sensations
- passivity
- Tachycardia (increased heart rate)

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D.. Ph.D..D Plenum Medical Book Company, New York (1988), page 147: Cannabis:

- red Conjunctiva
- changes in time sense
- memory
- coordination
- balance and stance
- increased hunger
- short-term memory loss
- dry mouth
- Tachycardia (rapid heart beat)
- elevated systolic pressure affected

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 140.

Maladaptive behavioral changes, e.g., euphoria anxiety, suspiciousness, or paranoid ideation, sensation of slowed time, impaired judgment, social withdrawal.

red Conjunctiva
Tachycardia (rapid heart)
increased appetite
dry mouth

SESSION XXIII

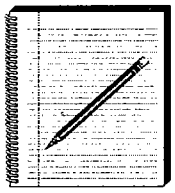
RESUME PREPARATION AND MAINTENANCE

SESSION XXIII RESUME PREPARATION AND MAINTENANCE

Upon successfully completing this session, the participants will be able to:

- Describe and discuss the purpose of the resume.
- Identify the elements of a drug recognition expert's resume.
- Prepare a basic resume summarizing his or her relevant training, education, experience and accomplishments to date.
- Update and extend the resume, as his or her relevant achievements continue to expand.

A. Purpose of the Resume



The principal purpose of the resume is to help establish your qualifications for testifying in court as a drug recognition expert. The resume records the education and training you have received, and the experience you have accumulated, that qualify you to render an opinion concerning drug impairment.

As a general rule, witnesses can testify only to personal knowledge, and cannot offer opinions as testimony. An important exception to this rule is granted to expert witnesses.

Basically, an expert witness is someone who the court decides is a expert. But "experts" usually are persons skilled in some art, trade, science or profession, who have a knowledge of matters not within the knowledge of people of average education, learning and experience. The prosecution or defense will call a witness who, they assert, is a "expert" in some matter. The court will carefully assess the credentials of that witness, i.e., the education, training and experience he or she has had in the matter in question. And the court -- and the court alone -- will decide whether the witness is a expert. If the court rules that the witness is a expert, then the witness may assist the finder of fact (jury or judge) in arriving at a verdict by expressing an opinion on a state of facts shown by the evidence, and based upon his or her special knowledge.

After you have completed all of the necessary training, the prosecution will begin to call you as an expert witness in drug evaluation and classification cases. The court will wish to consider relevant evidence of your alleged expertise. The resume can help to ensure that the court rules in your favor.

B. Preparation for Court Qualification

Being qualified as an expert may be as simple as stating your occupation. Or, it could require several hours of exhausting questioning by the prosecutor and the defense attorney. The prosecutor will seek to show that, insofar as drug evaluation is concerned, your knowledge is greater than that of the average person. The stronger your credentials, the better the chance that the court will consider you an "expert". And, the stronger your credentials, the more impressed the jury will be with your expertise, and the more weight they will give to your testimony.

The credentials that you have to offer to establish your expertise consist mainly of:

- The formal education and training you have received.
- The directly relevant experience you have acquired.
- The "outside" readings and study you have done.

You need to have accurate, up to date and documented evidence of these credentials, to support the assertion that you are a expert.

C. Resume Content

1. Relevant Formal Education.

   a. High School Education
   List the high school(s) you attended and the dates of your attendance. Highlight classes that provided knowledge in the area of drugs.

   b. College Education
   List the schools and dates. Highlight courses relevant to drugs, and relevant to the drug evaluation and classification examination procedures. List major field(s) of study, degree(s) earned, etc.

   c. Specialized College or University - level courses.
   List dates, instructor, subject(s) covered, credits earned, etc. Highlight the relevance of these courses to drugs.

2. Formal Training.

   a. Police Academy (recruit level training).
   List dates of attendance, major topics covered. Highlight drug relevant training.

   b. Specialized Police Training/In-Service Training.
   List dates, topics, instructors. Highlight drug relevant training.

   c. Other specialized training (e.g., military; special seminars; lectures).
   List dates, topics, instructors. Highlight drug relevant training.

3. Relevant Experience.

   a. Job Experience. (law enforcement)
   List specific assignments, including dates, rank held, etc. Include special assignments. Highlight duties associated with drug enforcement.

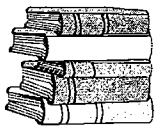
   b. Other Job Related Experience.
   List employers, dates, specific duties, etc. Highlight work relevant to drugs.

c. Drug Enforcement/Evaluation Experience.
Maintain up to date totals of vehicle stops; DWI investigations; DWI arrests; drug evaluations; filings on alcohol and drug related charges; convictions on each charge.

d. Prior experience in testifying in drug related cases. Maintain up to date totals of the numbers of appearances in various level courts (e.g., municipal, superior, etc.); the number of times qualified as an expert witness in drug cases; the number of times qualified as an expert witness in other cases. How many times are you certified as an expert

4. Outside Readings and Study.

a. Maintain listings of the drug related texts read; departmental training bulletins read; journals read; research papers read; films and video tapes viewed; etc.



Document drug related training and research that you conducted or in which you participated. List all relevant publications, training bulletins, etc. that you authored or co-authored.
Outside Classes that you teach

D. Sample Resumes

The remainder of this section of the Manual presents two sample DRE's resumes. They are based on the training and experience of actual drug recognition experts, although specific identifiers have been changed to preserve their anonymity.

SAMPLE RESUME NUMBER ONE

SHELTON POLICE DEPARTMENT

Traffic Division

The Resume of:

SERGEANT DAVID CARROLL REGAN
Certified Drug Recognition Technician

Latest update: 3/17/XX

Sgt. David C. Regan

Introduction

Sergeant David Carroll Regan is a supervisor in the Traffic Division, Shelton Police Department. He currently commands the special Impaired Driving Enforcement Activities Squad (IDEAS), a unit he was instrumental in forming. Sgt. Regan is a 15 year veteran of law enforcement. Prior to joining the Shelton Police Department ten years ago, he served for five years as a deputy with the Fairfield County Sheriff's Department.

Sergeant Regan has been assigned to the Traffic Division since his promotion to sergeant on 11/18/YY. His duties have included coordination of speed and DWI enforcement activities, the Joint Shelton-Derby Task Force for Sobriety Checkpoints, the Officer Friendly Program, the Motorcycle Safety Education Project, and general supervision of Traffic Division officers. He also serves as the Department's principal instructor for radar speed measurement, Standardized Field Sobriety Testing and Drug Recognition Expert training.

Sergeant Regan holds a Bachelor's Degree in the Administration of Justice from Fairfield University, and currently is a candidate for a Master's Degree in Police Science and Administration at the University of Stratford. He also holds an Instructor Certificate from the State Law Enforcement Training Board.

Sergeant Regan has served on two committees of the Governor's Task Force to Prevent Drunk Driving: The Standardized Field Sobriety Tests Committee and The Paperwork Reduction Committee. The one page Standard Notetaking Guide for Field Sobriety Testing that is employed by all departments statewide was designed by him.

Law Enforcement Experience

11/18/YY to Present	Sergeant, Traffic Division Shelton Police Department Supervisor, IDEAS Unit Drug Recognition Expert Program Coordinator
7/8/ZZ to 11/17/YY	Patrol Officer First Class Training and Operations Shelton Police Department Unit Supervisor, Traffic Law Enforcement Training Branch
9/11/XX to 7/7/ZZ	Patrol Officer Third Precinct, Motorcycle Shelton Police Department

Law Enforcement Experience (continued)

11/5/MM to 9/10/XX	Patrol Officer First Precinct Shelton Police Department
10/10/NN to 11/4/MM	Deputy Traffic Patrol Fairfield County Sheriff's Department

Special Police Training

10/XX	National Highway Traffic Safety Administration **DRE Instructor Training** (Certified as a DRE Instructor on 11/12/XX)
8/XX	Drug Enforcement Administration **Drug Interdiction Seminar**
11/YY	National Highway Traffic Safety Administration **Drug Evaluation and Classification Training: DRE School** (Certified as a DRE on 1/28/XX)
10/YY	National Highway Traffic Safety Administration **Drug Evaluation and Classification Training: PRE School**
3/YY	Southeastern University Institute of Police Technology **Special Conference: Managing DWI Squads**
4/ZZ	International Association of Chiefs of Police **Instructor Training in Horizontal Gaze Nystagmus and Divided Attention Field Sobriety Tests**
10/MM	University of Stanford, Northern Police Institute **Standardized Field Sobriety Testing**
6/NN	Acme Scientific Instruments, Inc. (Certified to perform inspection and repair of the Intoxotector J2Z breath testing instrument on 6/22/NN)

Sgt. David C. Regan

Court Qualification Record

8/VV	Qualified as Drug Recognition Expert in a case involving Phencyclidine impairment. (Judge Sally Grey, 8th District)
11/WW	Qualified as Drug Recognition Expert in a case involving a combination of CNS Stimulant and Narcotic Analgesic. (Judge Lewis Buchanan, Superior Court)
3/WW	Qualified as Drug Recognition Expert in a case involving Cannabis impairment. (Judge Sally Grey, 8th District)
9/UU	Qualified as Drug Recognition Expert in a case involving Narcotic Analgesic impairment. (Judge Jerome Byrnes, 8th District)

Specialized Readings

Title	Author
Drug and Alcohol Abuse	Marc A. Schuckit, M.D.
A Primer of Drug Action	Jerome Jaffee, Robert Petersen and Ray Hodgson
The Practitioner's Guide to Psychoactive Drugs	Ellen L. Bassuk, M.D. and Stephen C. Schoonover, M.D.
Drug Abuse: A Manual for Law Enforcement Officers	Smith, Kline & French (pub.)
Licit and Illicit Drugs	Edward M. Brecher
Chocolate to Morphine	Andrew Weil, M.D. and Winifred Rosen
Cocaine Addiction	U.S. Department of Health and Human Services
Marijuana Alert	Peggy Mann

SAMPLE RESUME NUMBER TWO

TRUMBULL POLICE DEPARTMENT

The Resume of:

OFFICER ANN MARIE REED
Certified Drug Recognition Technician

Latest Update: 4/25/YY

Officer Ann M. Reed

Introduction

Officer Ann Marie Reed is an eight year veteran with the Trumbull Police Department. She is currently assigned to the Special Operations Branch of the Administrative Division, where she serves as a Narcotics Enforcement Officer. Previously, she has served in the same Branch as a Vice Enforcement Officer, and as a patrol officer in the Department's first and second precincts.

Officer Reed is a graduate of Monroe College, with the Bachelor's Degree in Police Science and Administration. She is currently a candidate for the JD Degree at the Law School of the University of Bridgeport.

Law Enforcement Experience

5/12/VV to Present	Narcotics Enforcement Officer and Drug Recognition Expert Special Operations Branch Trumbull Police Department
3/26/WW to 5/11/VV	Vice Enforcement Officer Special Operations Branch Trumbull Police Department
9/23/XX to 3/25/WW	Patrol Officer First Precinct Trumbull Police Department
8/28/NN to 9/22/XX	Patrol Officer Second Precinct Trumbull Police Department
5/15/NN to 8/25/NN	Trainee Fairfield County Regional Police Academy (Graduated 8/25/NN)

Special Police Training

2/YY	University of Norwalk, Police Science Institute **Seminar: Packaging and Transport of Illicit Drugs**
10/VV	University of Norwalk, Police Science Institute **Seminar: Suppression of Drug-related Crime**
3/VV	National Highway Traffic Safety Administration **Drug Evaluation and Classification Training: DRE School** (Certified as a DRE on 5/22/VV)

Special Police Training (Continued)

2/VV	Fairfield County Regional Police Academy **Drug Evaluation and Classification Training: PRE-School**
10/WW	Fairfield County Regional Police Academy **Standardized Field Sobriety Testing**

Publications Authored

Reed, Ann M. and Cockroft, Robert S., "Narcotics Enforcement Tactics for the Medium-sized Department"; The Police Chief. January 17, 19XX.

Reed, Ann M., Procedures for Requesting Drug Recognition Expert Services; Training Bulletin for the Trumbull Police Department. 6/VV.

Reed, Ann M., Recognizing the Heroin Addict; Training Bulletin for the Trumbull Police Department. 1/VV.

Court Qualification Record

11/WW	Qualified as an expert witness for identification of Heroin impairment. (Judge Michael Adkins, 7th District)
3/WW	Qualified as a Drug Recognition Expert in a case involving a combination of CNS Stimulant and Narcotic Analgesic. (Judge Roberta Mayer, 7th District)
9/ZZ	Qualified as an expert witness for identification of "track" marks. (Judge Charles Peltier, 7th District)

Specialized Readings

Title	Author
Signs and Symptoms Handbook	Barbara McVan, M.D.
Drugs From A to Z	Richard R. Lingeman
Guide to Psychoactive Drugs	Richard Seymour and David E. Smith, M.D.
Addictions: Issues and Answers	Robert M. Julien, M.D.
Report on Synthetic China White: Fentanyl	Det. James Miller, LAPD

SESSION XXIV

DRUG COMBINATIONS

SESSION XXIV DRUG COMBINATIONS

Upon successfully completing this session, the participants will be able to:

- Explain the prevalence of polydrug use among drug impaired suspects and identify common combinations of drugs abused by those suspects.

- Explain the possible effects that combinations of drugs can produce on the major indicators of drug impairment, and define the terms "Null", "Overlapping", "Additive" and "Antagonistic" as they relate to polydrug effects.

- Identify the specific effects that are most likely to be observed in persons under the influence of particular drug combinations.

A. Examples of Polydrug Use

Studies have shown that polydrug use is on the rise throughout the country. In the Los Angeles Field Validation Study (1985), nearly three-quarters (72%) of the suspects who were evaluated were found to have two or more drugs in their blood samples. During Certification Training in New York City in early 1989, two-thirds (67%) of the suspects were polydrug users. The most familiar drug of all, alcohol, apparently is an especially popular "mixer" with other drugs. Alcohol routinely shows up in combination with virtually everything else, and often DREs encounter suspects who have consumed alcohol along with two or more other drugs. Cannabis is another popular "mixer", and frequently shows up in combination with Cocaine, PCP and various other drugs. The "speedball", a combination of Cocaine and Heroin, remains popular, despite the well-publicized hazards of this particular mixture, this was the combination responsible for the death of the actor John Belushi.

DREs should not be surprised to encounter virtually any possible combination of drugs. DREs may find more polydrug users than single drug users. This means that if the DRE is to do a good job at interpreting the results of evaluations, they must understand the mechanisms of drug interaction.

B. The Mechanisms of Drug Interaction: Four Basic Concepts

When a person ingests two or more different drugs into their body, each drug may work independently. What the body will **exhibit**, however, is a combination of those effects.

Four types of combined effects can, and generally will, occur when two drug categories are used together.

1. The Null Effect

The simplest way to explain the Null Effect is to say that it is the same thing as "zero plus zero equals zero". Some specific examples may help clarify this.

One of the first things a DRE does when examining a suspect is to check for HGN. We know that many drugs **do not affect nystagmus**. For instance, if we examined a suspect that was under the influence of Cocaine and nothing else, we would not expect to observe nystagmus. Likewise, if we examined someone who was under the influence of Marijuana and nothing else, no nystagmus would be present. What do you expect we would see when we check for nystagmus in the eyes of someone who has used Cocaine and Cannabis in combination? Since neither drug independently has any affect on nystagmus, the combination also would not affect nystagmus: nothing plus nothing equals nothing.

Another example of the Null Effect would be found when we check the pupil size of a suspect who was under the influence of PCP and Xanax. PCP does not affect pupil size; neither does Xanax, a CNS Depressant. The combination of these drugs will not affect the size of the pupils.

The Null Effect, then, means simply this: **If neither drug affects some particular indicator of impairment, their combination also will not affect that indicator.**

2. **The Overlapping Effect**

The Overlapping Effect comes into play when one drug **does affect** some indicator of impairment and the other drug has **no effect whatsoever** on that indicator. This is a case of "something plus nothing equals something".

Consider once again the example of a combination of Cocaine and Cannabis. We've already seen that this combination produces a Null Effect as far as nystagmus is concerned. But what about when we examine the suspect's eyes for a Lack of Convergence? Cannabis **does** produce a Lack of Convergence, Cocaine doesn't. Therefore, the suspect who is under the combined influence of Cannabis and Cocaine will exhibit a Lack of Convergence due to the independent effect of the Cannabis. This is an instance where the effects of the two drugs "overlap".

Another example of an Overlapping Effect would be the pupil size of a person who has taken PCP in combination with Heroin. PCP doesn't have any effect on pupil size, Heroin causes constricted pupils. Therefore, the combination would also cause the pupils to constrict.

The Overlapping Effect boils down to: **Action plus no action equals action.**

3. **The Additive Effect**

The Additive Effect occurs when two drug categories both affect some indicator of impairment in the same way. In combination, these effects reinforce each other.

Once again, think of the combination of Cocaine and Cannabis. What will we find when we check this suspect's pulse rate? Cannabis produces Tachycardia, so does Cocaine. When the two drugs are taken together, we can expect to observe Tachycardia because the drugs reinforce each other for that particular indicator of impairment. That is, the effect is <u>additive</u>.

The simplest way to express the Additive Effect is to say "something plus the same something produces that same some-thing". One thing we can't say for certain is how much the two drugs will reinforce each other. Sometimes the reinforced effect is as simple as "one plus one equals two". But at other times, the combined effect is much greater than the individual contributions of the two drugs, e.g., on the order of "one plus one equals five". We use the term Additive Effect to cover all situations where two drugs impact on some indicator in the same way.

You have already noticed that we have used one particular drug combination, Cannabis and Cocaine, to furnish examples of all three kinds of effects covered so far. This drives home the important point that drug interactions are often complex, and involve a number of different mechanisms operating at the same time.

4. The Antagonistic Effect

The Antagonistic Effect occurs when two drug categories affect some indicator in exactly the opposite ways. This is a case of "action plus opposing action". For example, suppose we check the blood pressure of someone who is under the combined influence of Heroin and Cocaine; what are we likely to find?

The fact is, we're likely to find just about anything at all. The Heroin, independently, tends to produce Hypotension, the Cocaine, independently, usually produces Hypertension. The two drugs may offset each other, as far as blood pressure is concerned, and the suspect's blood pressure may wind up normal. On the other hand, if the Cocaine's effects are starting to wear off and the Heroin is still active in the suspect's body, we might find the blood pressure down. Conversely, if the Cocaine is active but the Heroin's effects have not yet reached their peak, we might find the blood pressure up. When we deal with an Antagonistic Effect, we simply can't predict what the outcome will be.

C. The Symptomatology of Drugs

On the next page, you will find the Cumulative Drug Symptomatology Matrix. This lists all of the expected effects of each drug category on the major indicators of impairment, and summarizes the general indicators, time parameters and methods of ingestion for each category. This matrix will be useful in identifying how specific combinations of drugs will interact to produce a variety of Null, Overlapping, Additive and Antagonistic Effects.

INDICATORS CONSISTENT WITH DRUG CATEGORIES

	DEPRESSANTS	STIMULANTS	HALLUCINOGENS	PCP	NARCOTIC ANALGESICS	INHALANTS	CANNABIS
HGN	PRESENT	NONE	NONE	PRESENT	NONE	PRESENT	NONE
VERTICAL NYSTAGMUS	PRESENT (HIGH DOSE)*	NONE	NONE	PRESENT	NONE	PRESENT (HIGH DOSE)*	NONE
LACK OF CONVERGENCE	PRESENT	NONE	NONE	PRESENT	NONE	PRESENT	PRESENT
PUPIL SIZE	NORMAL (1)	DILATED	DILATED	NORMAL	CONSTRICTED	NORMAL (4)	DILATED (6)
REACTION TO LIGHT	SLOW	SLOW	NORMAL (3)	NORMAL	LITTLE OR NONE VISIBLE	SLOW	NORMAL
PULSE RATE	DOWN (2)	UP	UP	UP	DOWN	UP	UP
BLOOD PRESSURE	DOWN	UP	UP	UP	DOWN	UP/DOWN (5)	UP
BODY TEMPERATURE	NORMAL	UP	UP	UP	DOWN	UP/DOWN/ NORMAL	NORMAL

*high dose for that particular individual

FOOTNOTE:
These indicators are those most consistent with the category, keep in mind that there may be variations due to individual reaction, dose taken and drug interactions.

1. SOMA, Quaaludes usually dilate pupils.
2. Quaaludes and ETOH may elevate.
3. Certain psychedelic amphetamines cause slowing.
4. Normal but may be dilated.
5. Down with anesthetic gases, up with volatile solvents and aerosols.
6. Pupil size possibly normal.

MAJOR INDICATORS	CNS DEPRESSANTS	CNS STIMULANTS	HALLUCINOGENS	PCP	NARCOTIC ANALGESICS	INHALANTS	CANNABIS
GENERAL INDICATORS	Uncoordinated Disoriented Sluggish Thick, slurred speech Drunk-like behavior Gait ataxia Drowsiness Droopy eyes Fumbling *NOTE: With Methaqualone, pulse will be elevated and body tremors will be evident. Alcohol and Quaaludes elevate pulse. Soma and Quaaludes dilate pupils.	Restlessness Body tremors Excited Euphoric Talkative Exaggerated reflexes Anxiety Grinding teeth (bruxism) Redness to nasal area Runny nose Loss of appetite Insomnia Increased alertness Dry mouth Irritability	Dazed appearance Body tremors Synesthesia Hallucinations Paranoia Uncoordinated Nausea Disoriented Difficulty in speech Perspiring Poor perception of time & distance Memory loss Disorientation Flashbacks NOTE: With LSD, piloerection may be observed (goose bumps, hair standing on end)	Perspiring Warm to the touch Blank stare Very early angle of HGN onset Difficulty in speech Incomplete verbal responses Repetitive speech Increased pain threshold Cyclic behavior Confused agitated Hallucinations Possibly violent & combative Chemical odor "Moon walking"	Droopy eyelids ("ptosis") "On the nod" Drowsiness Depressed reflexes Low, raspy, slow speech Dry mouth Facial itching Euphoria Fresh puncture marks Nausea Track marks NOTE: Tolerant users exhibit relatively little psychomotor impairment.	Residue of substance around nose & mouth Odor of substance Possible nausea Slurred speech Disorientation Confusion Bloodshot, watery eyes Lack of muscle control Flushed face Non-communicative Intense headaches **NOTE: Anesthetic gases cause below normal blood pressure; volatile solvents and aerosols cause above normal blood pressure.	Marked reddening of conjunctiva Odor of marijuana Marijuana debris in mouth Body tremors Eyelid tremors Relaxed inhibitions Increased appetite Impaired perception of time & distance Disorientation Possible paranoia
DURATION OF EFFECTS	Barbiturates: 1-16 hours Tranquilizers: 4-8 hours Methaqualone: 4-8 hours	Cocaine: 5-90 minutes Amphetamines: 4-8 hours Methomephetamines 12 hours	Duration varies widely from one hallucinogen to another.	Onset: 1-5 minutes Peak Effects: 15-30 minutes Exhibits effects up to 4-6 hours	Heroin: 4-6 hours Methadone: Up to 24 hours Others: Vary	6-8 hours for most volatile solvents Anesthetic gases and aerosols - very short duration.	2-3 hours - exhibits effects (Impairment may last up to 24 hours, without awareness of effects.)
USUAL METHODS OF ADMINISTRATION	Oral Injected (occasionally)	Insufflation (snorting) Smoked Injected Oral	Oral Insufflation Smoked Injected Transdermal	Smoked Oral Insufflation Injected Eye drops	Injected Oral Smoked Insufflated	Insufflated (Historically, have been taken orally.)	Smoked Oral
OVERDOSE SIGNS	Shallow breathing Cold, clammy skin Pupils dilated Rapid, weak pulse Coma	Agitation Increased body temperature Hallucinations Convulsions	Long intense "trip"	Long intense "trip"	Slow, shallow breathing Clammy skin Coma Convulsions	Coma	Fatigue paranoia

D. Specific Examples of Drug Combinations: An Exercise for the Student

On the final five pages of this section of the Manual, you will find examples of specific drug combinations. The expected results for the first two of these combinations (Cannabis and Stimulants, and PCP and Heroin) have been worked out for you. Study those examples, then complete the work sheets for the three remaining combinations.

CANNABIS AND STIMULANT IN COMBINATION

IMPAIRMENT INDICATOR	EFFECT DUE TO CANNABIS	EFFECT DUE TO STIMULANT	TYPE OF COMBINED EFFECT	WHAT WILL WE SEE
HORIZONTAL GAZE NYSTAGMUS	NONE	NONE	NULL	NONE
VERTICAL GAZE NYSTAGMUS	NONE	NONE	NULL	NONE
LACK OF CONV.	PRESENT	NONE	OVERLAPPING	PRESENT
PUPIL SIZE	DILATED OR NORMAL	DILATED	OVERLAPPING OR ADDITIVE	DILATED
REACT LIGHT	NORMAL	SLOW	OVERLAPPING	SLOW
PULSE RATE	UP	UP	ADDITIVE	UP
BLOOD PRESSURE	UP	UP	ADDITIVE	UP
BODY TEMP	NORMAL	UP	OVERLAPPING	UP

PHENCYCLIDINE AND HEROIN IN COMBINATION

IMPAIRMENT INDICATOR	EFFECT DUE TO PHENCYCLIDINE	EFFECT DUE TO HEROIN	TYPE OF COMBINED EFFECT	WHAT WILL WE SEE
HORIZONTAL GAZE NYSTAGMUS	PRESENT	NONE	OVERLAPPING	PRESENT
VERTICAL GAZE NYSTAGMUS	PRESENT	NONE	OVERLAPPING	PRESENT
LACK OF CONV.	PRESENT	NONE	OVERLAPPING	PRESENT
PUPIL SIZE	NORMAL	CONSTRICTED	OVERLAPPING	CONSTRICTED
REACT LIGHT	NORMAL	LITTLE OR NONE VISIBLE	OVERLAPPING	LITTLE OR NONE VISIBLE
PULSE RATE	UP	DOWN	ANTAGONISTIC	DOWN/ NORMAL/UP
BLOOD PRESSURE	UP	DOWN	ANTAGONISTIC	DOWN/ NORMAL/UP
BODY TEMP	UP	DOWN	ANTAGONISTIC	DOWN/ NORMAL/UP

Dep

- Disorientation
- Drunk like Behavior
- Droopy eyelids
- Drowsy
- Fumbly
- Gait Ataxia
- Unconscious
- Thick slurred speech
- Sluggish

Stim

- Irritable
- Increased Alertness
- Insomnia
- Runny nose
- Reddening nose
- Restlessness
- Exaggerated Reflexes
- Excitable
- Euphoria
- Grinding of teeth
- Loss of appetite
- Anxiety
- Dry mouth
- Talkative
- Body Tremors

Hal
~~Inhal~~

- Dazed Appearance
- Disoriented
- D[illegible]
- Difficulty in speech
- Philosophical
- Perspiring
- Paranoia
- Poor perception of Time & Distance
- Memory loss
- F~~lushed~~
- Unconscious
- Hallucinations
- Nausea
- Body tremors
- Synesthesia

PCP
~~Inhal~~

- Perspiring
- Cyclic Behavior
- Possible violence
- Hallucinations
- Increased threshold to pain
- D~~[illegible]~~ difficulty in speech
- Confused, Agitated
- Repetitive speech
- Incomplete verbal Response
- Blank stare
- Moon walk
- Very early ¿ of onset
- Warm to touch
- Chemical odor

WORKSHEET #1

PCP AND HALLUCINOGENS

IMPAIRMENT INDICATOR	EFFECT DUE TO PCP	EFFECT DUE TO HALLUCINOGEN	TYPE OF COMBINED EFFECT*	WHAT WILL WE SEE
HORIZONTAL GAZE NYSTAGMUS	Present	None	Present	Overlap
VERTICAL GAZE NYSTAGMUS	Present	None	Present	Overlap
LACK OF CONV.	Present	None	Present	Overlap
PUPIL SIZE	Normal	Normal	Normal	Null
REACT LIGHT	Normal	Normal/may be slow	Normal	Null
PULSE RATE	up	up	additive	additive
BLOOD PRESSURE	up	up	additive	additive
BODY TEMP	up	up	additive	Additive

*Null; Overlapping; Additive; or, Antagonistic

WORKSHEET #2

CANNABIS AND DEPRESSANT

IMPAIRMENT INDICATOR	EFFECT DUE TO CANNABIS	EFFECT DUE TO DEPRESSANT	TYPE OF COMBINED EFFECT*	WHAT WILL WE SEE
HORIZONTAL GAZE NYSTAGMUS	No	Yes	Overlap	Yes
VERTICAL GAZE NYSTAGMUS	No	Yes	Overlap	Yes
LACK OF CONV.	Yes	Yes	Add	Yes
PUPIL SIZE	dilated/Normal	Normal/Constricted	Null/Overlap/Add	~~dilated~~ ↕↔
REACT LIGHT	Normal	Slow	Overlap	Slow
PULSE RATE	up	down/up	Antagonism/Add	↕↔
BLOOD PRESSURE	up	down	Antagonism	↕↔
BODY TEMP	Normal	Normal	Null	Normal

*Null; Overlapping; Additive; or, Antagonistic

WORKSHEET #3

STIMULANT AND DEPRESSANT

IMPAIRMENT INDICATOR	EFFECT DUE TO STIMULANT	EFFECT DUE TO DEPRESSANT	TYPE OF COMBINED EFFECT*	WHAT WILL WE SEE
HORIZONTAL GAZE NYSTAGMUS	No	Yes	Overlap	Yes
VERTICAL GAZE NYSTAGMAS	No	Yes	Overlap	Yes
LACK OF CONV.	No	Yes	Overlap	yes
PUPIL SIZE	dilate	Null/dilate	Addictive	dilated
REACT LIGHT	slow	slow	Additive	slow
PULSE RATE	up	down	Antagonist	↔
BLOOD PRESSURE	up	down	Antonist	↔
BODY TEMP	up	null	Overlap	up

*Null; Overlapping; Additive; or, Antagonistic

SESSION XXV

PRACTICE: TEST INTERPRETATION

SESSION XXV PRACTICE: TEST INTERPRETATION

Upon successfully completing this session, the participants will be able to:

- Analyze the results of a complete Drug Evaluation and Classification Examinations and identify the category or categories of drugs affecting the individual examined.

- Articulate the bases for the drug category identification.

This session is similar to Sessions XV and XVIII. You will once again review some drug evaluation and classification report "exemplars", consider all of the "evidence" they provide, and decide what categories of drugs -- if any -- are present. Now that we have covered all seven categories, you can expect to find any or all of the categories in these exemplars. And, some exemplars might involve combinations of drug categories. Pay close attention to all of the information in these exemplars when making your determinations.

Laubuy

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: RICHARDSON, SANDY
BOOKING NO.: 028
DR.: XXV-1

ARRESTEE'S NAME (LAST, FIRST, MI): KNIGHT, RAYMOND K
AGE: 34 | SEX: M | RACE: W
ARRESTING OFFICER (NAME, SERIAL #, DIV.): MOEN, B 6225 VTD

DATE EXAMINED/TIME/LOCATION: 3-21-96 2330 VALLEY TRF BU
BREATH RESULTS: ☐ Refused Results 0.00 Instrument # 1234
CHEMICAL TEST: ☐ Both Tests Refused ☒ Urine ☐ Blood

MIRANDA WARNING GIVEN? ☒ Yes ☐ No Given by S. RICHARDSON
What have you eaten today? When? SOME COOKIES FEW HRS AGO
What have you been drinking? How much? TEA N/A
Time of last drink? N/A

Time now? NO TIME
When did you last sleep? How long? I DON'T REMEMBER YESTERDAY LAST NIGHT
Are you sick or injured? ☐ Yes ☒ No
Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No
Do you have any physical defects? ☐ Yes ☒ No
Are you under the care of a doctor/dentist? ☐ Yes ☒ No
Are you taking any medication or drugs? ☐ Yes ☒ No

ATTITUDE: COOPERATIVE BUT SLOW TO RESPOND DISINTERESTED
COORDINATION: DISORIENTED UNSTEADY
SPEECH: SLOW
BREATH: STALE ODOR
FACE: NORMAL

CORRECTIVE LENS: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☐ Normal ☒ Bloodshot ☐ Watery
Blindness: ☒ None ☐ L. Eye ☐ R. Eye
Tracking: ☒ Equal ☐ Unequal
PUPIL SIZE: ☒ Equal ☐ Unequal (explain)
HGN Present: ☐ Yes ☒ No
Able to follow stimulus: ☒ Yes ☐ No
Eyelids: ☒ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 112 / 2335	Lack of Smooth Pursuit	NO	NO
2. 114 / 2347	Max. Deviation	NO	NO
3. 112 / 2357	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☒ No
Convergence: Right Eye / Left Eye

ONE LEG STAND
15 / 16 / 27
R / L / L / R
LEG TREMORS

BALANCE EYES CLOSED
2 2 2 2
CIRCULAR SWAY
EYELID TREMORS

WALK AND TURN TEST
LOWER BODY TREMORS

Cannot keep balance: VV
Starts too soon:

	1st Nine	2nd Nine
Stops Walking		
Misses Heal-Toe		
Steps off Line		
Raises Arms	VV	VV
Actual Steps Taken	9	9

☐ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☐ ☐ Puts foot down.

INTERNAL CLOCK: 43 Estimated as 30 sec.
Describe Turn: AS INSTRUCTED BUT VERY SLOW
Cannot do Test (explain): N/A
Type of Footwear: SANDALS

○ Right △ Left
Draw lines to spots touched
EYELID TREMORS
SWAYING

PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	5.5	7.0	6.0	5.0
Right Eye	5.5	7.0	6.0	5.0

NASAL AREA: CLEAR
ORAL CAVITY: BROWNISH GREEN CONTENT ON TONGUE
HIPPUS: ☐ Yes ☒ No
REBOUND DILATION: ☐ Yes ☒ No
Reaction to Light: NORMAL

RIGHT ARM / LEFT ARM
ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 140 / 100
TEMP: 98.6°
MUSCLE TONE: ☒ Near Normal ☐ Flaccid ☐ Rigid
Comments:

What medicine or drug have you been using? NOTHING
How much? N/A
Time of use? NO ANSWER
Where were the drugs used? (Location) NO ANSWER

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
3-21-96 2250	2315	2330	0010 3-22-96

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	Sandy Richardson	3822	NHTSA		PAQUETTE

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Sandy Richardson	ARRESTEE: Raymond K. Knight

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Raymond K. Knight, took place in the DRE room, Valley Traffic Division, LAPD

2. WITNESS: Arresting Officer Sgt. Ron Moen LAPD

3. BREATH TEST: Sgt. Moen administered breath test to Knight, the result was 0.00% and 0.00.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio and advised to return to Valley Traffic Division to conduct a DRE evaluation. Sgt. Moen stated he had observed the subject driving very slowly (@20 mph) without headlights and impeding traffic.

5. INITIAL OBSERVATIONS: Writer observed the subject seated int he breath testing room. Subject appeared passive, quiet, and seemed uninterested in what was going on around him. However, he was cooperative and responsive when I talked with him.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 2" in a circular motion, and exhibited eyelid tremors, and estimated 43 seconds as 30 seconds. Walk and Turn: Subject lost his balance during the instructions and raised his arms for balance. One Leg Stand: Subject raised his arms, swayed, and put his foot down. Finger to Nose: Subject swayed, exhibited eyelid tremors, and missed the tip of his nose.

8. CLINICAL INDICATORS: Subject's pulse and blood pressure were above the normal range. His pupils were dilated, there was lack of convergence, and reddening of the conjunctiva.

9. SIGNS of INGESTION: Subject had a brownish - green coloration on his tongue.

10. STATEMENTS: Subject denied using any medication or drugs.

11. OPINION of EVALUATOR: In my opinion Raymond K. Knight is under the influence of (m.)drugs and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS: Throughout the evaluation subject exhibited eyelid and muscle tremors.

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: TOWER, BILL

BOOKING NO.: 029 | DR#: XXV-2

ARRESTEE'S NAME (LAST, FIRST, MI)	AGE	SEX	RACE	ARRESTING OFFICER (NAME, SERIAL #, DIV.)
LOPEZ, NANCY L	19	F	B	TOWER TW 1776 MSP

DATE EXAMINED/TIME/LOCATION	BREATH RESULTS	CHEMICAL TEST
5-7-96 0200 HAWKINS CITY PD	☐ Refused Results 0.00 Instrument # 1234	☐ Urine ☑ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN	What have you eaten today? When?	What have you been drinking? How much?	Time of last drink?
☑ Yes ☐ No Given by: TW TOWER	PIZZA DON'T REMEMBER	COCACOLA 1	N/A

Time now?	When did you last sleep? How long?	Are you sick or injured?	Are you diabetic or epileptic?
9PM	LAST NIGHT ALL NIGHT	☐ Yes ☑ No	☐ Yes ☑ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor/dentist?
☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No

Are you taking any medication or drugs?	ATTITUDE	COORDINATION
☐ Yes ☑ No	WITHDRAWN, PASSIVE DETATCHED	POOR STUMBLING

SPEECH	BREATH	FACE
Slow, Slurred, Low	CHEMICAL ODOR	FLUSHED

CORRECTIVE LENS:	Eyes:	Blindness:	Tracking:
☑ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	☐ Normal ☑ Bloodshot ☑ Watery	☑ None ☐ L Eye ☐ R Eye	☑ Equal ☐ Unequal

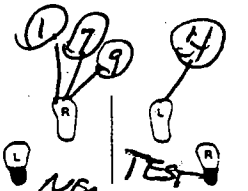
PUPIL SIZE:	HGN Present:	Able to follow stimulus:	Eyelids:
☑ Equal ☐ Unequal (explain)	☑ Yes ☐ No	☑ Yes ☐ No	☑ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 102, 0210	Lack of Smooth Pursuit	YES	YES
2. 104, 0222	Max. Deviation	YES	YES
3. 104, 0232	Angle of Onset	35°	35°

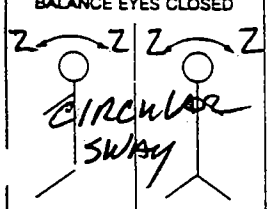
Vertical Nystagmus? ☑ Yes ☐ No

Convergence: Right Eye ☑ Left Eye ☑

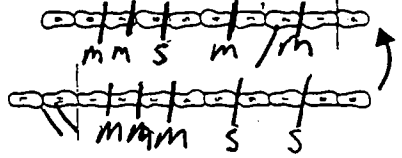
ONE LEG STAND



BALANCE EYES CLOSED



WALK AND TURN TEST REPEATEDLY REQUESTED INSTRUCTIONS

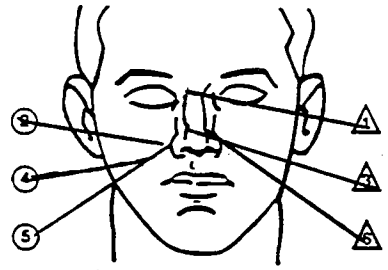


	1st Nine	2nd Nine
Cannot keep balance	VV	
Starts too soon		
Stops Walking	V	V
Misses Heal-Toe	VVV	VVV
Steps off-Line		V
Raises Arms	VV	VV
Actual Steps Taken	9	9

☐ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☐ ☐ Puts foot down.

INTERNAL CLOCK:	Describe Turn	Cannot do Test (explain)	Type of Footwear
90 Estimated as 30 sec.	AS INSTRUCTED VERY SLOW AND STIFF	N/A	FLAT SHOES

○ Right △ Left
Draw lines to spots touched



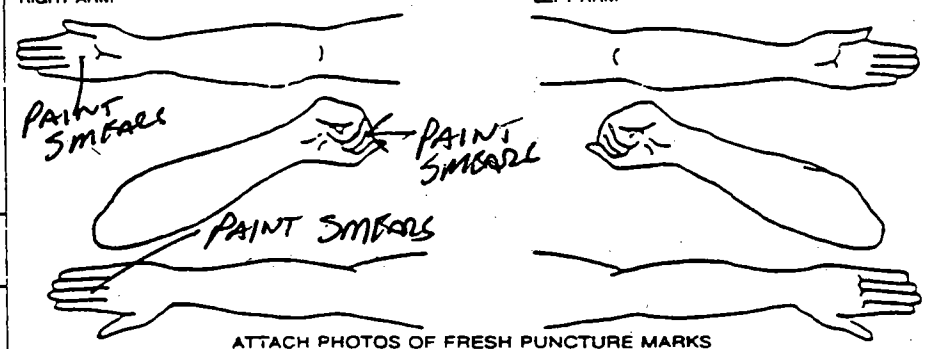
PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	5.0	6.5	6.0	4.5
Right Eye	5.0	6.5	6.0	4.5

NASAL AREA: RUNNY NOSE PAINT SMEARS ON FACE

ORAL CAVITY: CLEAR

HIPPUS ☐ Yes ☑ No | REBOUND DILATION ☐ Yes ☑ No | Reaction to Light: NORMAL

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 142, 98 | TEMP: 98.8°

MUSCLE TONE: ☑ Near Normal ☐ Flaccid ☐ Rigid

Comments:

What medicine or drug have you been using? How much?	Time of use?	Where were the drugs used? (Location)
NOTHING NO ANSWER	NO ANSWER	NO ANSWER

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
5-7-96 0130	0130 MY ARREST	0200	0238

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	TW Tower	1776	MSP		PAQUETTE

DRUG INFLUENCE EVALUATION Page 2 of 2

LOG NO.	DRE: F/Sgt. Bill Tower	ARRESTEE: Nancy L. Lopez

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Nancy L. Lopez, took place in the DRE room, Howard County Police Dept.

2. WITNESS: Officer Scott Wichtendahl

3. BREATH TEST: Officer Scott Wichtendahl administered breath test to Lopez, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was the arresting officer.

5. INITIAL OBSERVATIONS: Writer was at residence when awaken by loud shouts and arguing voices. Through window, writer observed four individuals standing on the front lawn. Three were young males, they were shouting at and pushing each other. The subject, was standing passively several yards away. Upon turning on the outside light and exiting my residence, the three males fled. The subject remained standing on the lawn she appeared dazed and confused. There was an strong chemical odor emanating from her.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 2" in a circular motion, and estimated 90 seconds as 30 seconds. When asked, " how long she had been instructed to keep her eyes closed." She stared straight ahead for a few seconds and then said, "what? what did you say?" When the question was repeated she slowly shrugged and said, "I don't know?" Walk and Turn: Subject lost her balance during the instructions, stopped walking, raised her arms for balance, and missed heel to toe and stepped off the line. On several occasions she asked,"What do you want me to do next?" One Leg Stand: Subject could not maintain her balance and the test was stopped for her safety. Finger to Nose: Subject missed tip of her nose each time, and kept opening her eyes.

8. CLINICAL INDICATORS: Subject had HGN, Vertical Nystagmus and Lack of Convergence. Her pulse and blood pressure were above the normal range.

9. SIGNS of INGESTION: Subject's breath had a strong chemical odor. She had what appeared to be paint smears on her nostrils, lips and right hand.

10. STATEMENTS: Subject denied using any medication or drugs.

11. OPINION of EVALUATOR: In my opinion Nancy L. Lopez is under the influence of an Inhalant and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.

13. MISCELLANEOUS:

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: SPARKS, BOB
BOOKING NO.: 030
DR #: XXV-3

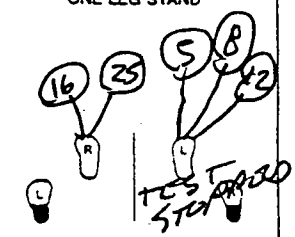
ARRESTEE'S NAME (LAST, FIRST, MI): MORSE, WAYNE M
AGE: 29 | SEX: M | RACE: B
ARRESTING OFFICER (NAME, SERIAL #, DIV.): UNSWORTH, J #1811 PHOENIX PD
DATE EXAMINED/TIME/LOCATION: 8-21-96 2300 PHOENIX PD
BREATH RESULTS: ☐ Refused Results 0.00 Instrument # 1234
CHEMICAL TEST: ☐ Both Tests Refused ☑ Urine ☐ Blood

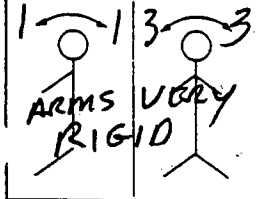
MIRANDA WARNING GIVEN: ☑ Yes ☐ No Given by: B. SPARKS
What have you eaten today? When? NO RESPONSE
What have you been drinking? How much? NO RESPONSE
Time of last drink? N/A
Time now? NO RESPONSE
When did you last sleep? How long? EAT? SOME HOTDOGS
Are you sick or injured? DIONT ☐ Yes ☐ No NO BEER DRINK
Are you diabetic or epileptic? NO RESPONSE ☐ Yes ☐ No
Do you take insulin? NO RESPONSE ☐ Yes ☐ No
Do you have any physical defects? DIDN'T DRINK ANYTHING ☐ Yes ☐ No
Are you under the care of a doctor/dentist? NO RESPONSE ☐ Yes ☐ No
Are you taking any medication or drugs? ANSWERED "NO" VERY SLOW ☐ Yes ☑ No
ATTITUDE: NON RESPONSIVE PASSIVE
COORDINATION: VERY POOR STAGGERING - STUMBLING
SPEECH: SLOW DRAWN OUT REPETITIVE SOMETIMES
BREATH: ODOR of MARIJUANA
FACE: SWEATY BLANK STARE

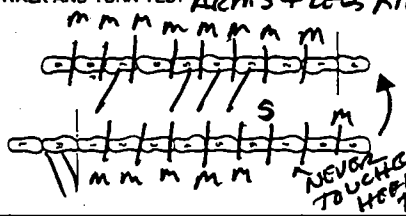
CORRECTIVE LENS: ☑ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☐ Normal ☑ Bloodshot ☐ Watery
Blindness: ☑ None ☐ L Eye ☐ R Eye
Tracking: ☑ Equal ☐ Unequal
PUPIL SIZE: ☑ Equal ☐ Unequal (explain)
HGN Present: ☑ Yes ☐ No
Able to follow stimulus: ☑ Yes ☐ No
Eyelids: ☑ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 108 , 2307	Lack of Smooth Pursuit	YES	YES
2. 110 , 2318	Max. Deviation	YES	YES
3. 108 , 2329	Angle of Onset	30°	30°

Vertical Nystagmus? ☑ Yes ☐ No
Convergence: Right Eye / Left Eye — NEVER MOVED

ONE LEG STAND


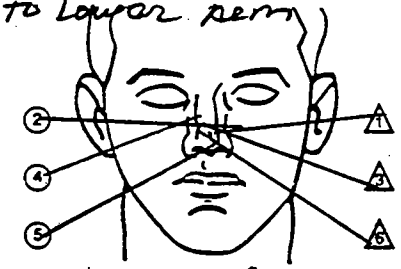
BALANCE EYES CLOSED


WALK AND TURN TEST — ARMS + LEGS RIGID


	1st Nine	2nd Nine
Cannot keep balance	VV	
Starts too soon		
Stops Walking	✓	
Misses Heel-Toe	ALL STEPS	
Steps off Line		VVVV
Raises Arms	VVVV	VVVV
Actual Steps Taken	9	9

L R
☐ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☐ ☐ Puts foot down.

INTERNAL CLOCK: 55 Estimated as 30 sec.
Describe Turn: DID NOT LEAVE FRONT FOOT STATIONARY
Cannot do Test (explain): N/A
Type of Footwear: RUNNING SHOES

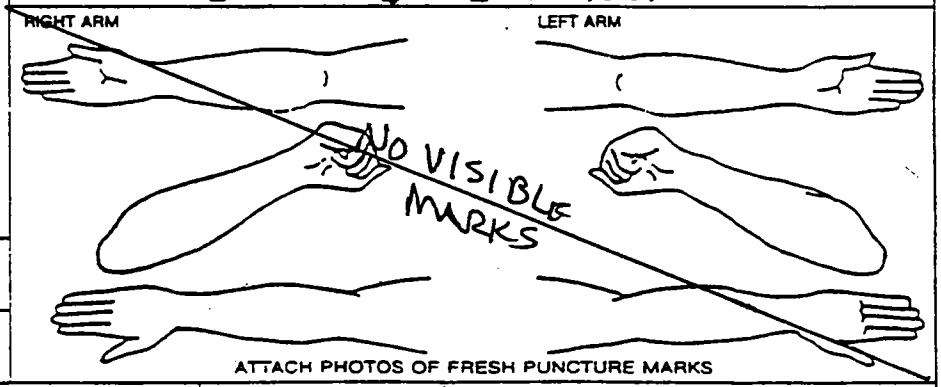
○ Right △ Left
Draw lines to spots touched
HAD TO BE REMINDED TO LOWER ARM


ARMS VERY RIGID

PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	5.5	7.5	6.5	5.0-6.5
Right Eye	5.5	7.5	6.5	5.0-6.5

NASAL AREA: CLEAR
ORAL CAVITY: SMALL BITS OF GREEN LEAFY MATERIAL
HIPPUS: ☐ Yes ☑ No
REBOUND DILATION: ☑ Yes ☐ No
Reaction to Light: NORMAL

BLOOD PRESSURE: 148 , 102 TEMP: 99.8 °
MUSCLE TONE: ☐ Near Normal ☐ Flaccid ☑ Rigid
Comments: VERY RIGID

RIGHT ARM / LEFT ARM


ATTACH PHOTOS OF FRESH PUNCTURE MARKS

What medicine or drug have you been using? How much? NO RESPONSE (BLANK STARE)
Time of use? NO RESPONSE
Where were the drugs used? (Location) NOT TELLING YOU

DATE/TIME OF ARREST: 8-21-96 2240
TIME DRE NOTIFIED: PRESENT AT ARREST
EVAL START TIME: 2300
TIME COMPLETED: 2338

CONTROL #:
EXAMINING OFFICER: B. Sparks
SERIAL NO: 111B
DIVISION: PPD
UNAVAILABLE DATES:
REVIEWED BY: M. GEORGE

DRUG INFLUENCE EVALUATION Page 2 of 2

LOG NO.	DRE: Sgt. Bob Sparks	ARRESTEE: Wayne M. Morse

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Wayne M. Morse, took place in the DRE room, Traffic Office, Phoenix Police Dept.

2. WITNESS: Officer James Unsworth, #1811 PPD

3. BREATH TEST: Writer administered breath test to Morse, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was present at the time of arrest.

5. INITIAL OBSERVATIONS: Writer was supervising a sobriety check point and Officer Unsworth approach a vehicle and initiate a conversation with the subject. When the subject exited his vehicle, he was unsteady on his feet, and very slow in responding to Officer Unsworth's questions and instructions.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" side to side, and estimated 55 seconds as 30 seconds. Walk and Turn: Subject lost his balance during the instructions, stepped off the line, missed heel to toe, stopped walking, raised his arms for balance, and turned improperly. One Leg Stand: Subject raised his arms, swayed and put his foot down. On the second legs he could not maintain his balance and the test was terminated for his safety. Finger to Nose: Subject missed tip of his nose each time, and kept his finger in contact with the face on every trial.

8. CLINICAL INDICATORS: Subject had HGN, Vertical Nystagmus and Lack of Convergence. His pulse, blood pressure, and temperature were all elevated. His pupils were dilated in near total darkness and exhibited rebound dilation.

9. SIGNS of INGESTION: Subject's breath had an odor of marijuana and there was vegetable material on his teeth.

10. STATEMENTS: Subject denied using any medication or drugs.

11. OPINION of EVALUATOR: In my opinion Wayne M. Morse is under the influence of a PCP / cannabis and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS:

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: RILES, W.
BOOKING NO.: 031
DR: XXV-4

ARRESTEE'S NAME (LAST, FIRST, MI): NEAL, CHARLES N
AGE: 44 | SEX: M | RACE: W
ARRESTING OFFICER (NAME, SERIAL #, DIV.): MILSTEAD, F, 4443 PPD

DATE EXAMINED/TIME/LOCATION: 10-2-96 1930 CENTRAL INTOX
BREATH RESULTS: ☐ Refused Results 0.100 Instrument # 1234
CHEMICAL TEST: ☐ Both Tests Refused ☑ Urine ☐ Blood

MIRANDA WARNING GIVEN: ☑ Yes ☐ No
Given by: F. MILSTEAD
What have you eaten today? When? CORN FLAKES THIS MORNING
What have you been drinking? How much? NOTHING AT ALL
Time of last drink? N/A

Time now? MIDNIGHT
When did you last sleep? How long? I DON'T REMEMBER
Are you sick or injured? ☑ Yes ☐ No FEEL STOMACH SICK
Are you diabetic or epileptic? ☐ Yes ☑ No

Do you take insulin? ☐ Yes ☑ No
Do you have any physical defects? ☐ Yes ☑ No
Are you under the care of a doctor/dentist? ☐ Yes ☑ No

Are you taking any medication or drugs? ☑ Yes ☐ No I'M PRETTY CLEAN
ATTITUDE: COOPERATIVE BUT SLOW TO RESPOND
COORDINATION: POOR STUMBLING
SPEECH: SLOW LOW RASPY
BREATH: NORMAL
FACE: APPEARS DROWSY

CORRECTIVE LENS: ☑ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft
Eyes: ☑ Normal ☐ Bloodshot ☐ Watery
Blindness: ☑ None ☐ L. Eye ☐ R. Eye
Tracking: ☑ Equal ☐ Unequal
PUPIL SIZE: ☑ Equal ☐ Unequal (explain) VERY SMALL
HGN Present: ☐ Yes ☑ No
Able to follow stimulus: ☑ Yes ☐ No
Eyelids: ☐ Normal ☑ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 56 : 1935	Lack of Smooth Pursuit	NO	NO
2. 60 : 1950	Max. Deviation	NO	NO
3. 56 : 2005	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☑ No
Convergence: Right Eye / Left Eye

ONE LEG STAND: TEST STOPPED ON BOTH ATTEMPTS

BALANCE EYES CLOSED

WALK AND TURN TEST

Cannot keep balance: √√
Starts too soon:

	1st Nine	2nd Nine
Stops Walking	√√	√√
Misses Heal-Toe	√	√√
Steps off Line		
Raises Arms	√√	√√√
Actual Steps Taken	9	9

L R
☐ ☐ Sways while balancing.
☒ ☒ Uses arms to balance.
☐ ☐ Hopping.
☒ ☒ Puts foot down.

INTERNAL CLOCK: 58 Estimated as 30 sec.
Describe Turn: LOST BALANCE STAGGERED TO THE RIGHT
Cannot do Test (explain): N/A
Type of Footwear: WORK BOOTS

○ Right △ Left
Draw lines to spots touched

MOVED ARMS VERY SLOWLY

PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	1.5	1.5	1.5	1.5
Right Eye	1.5	1.5	1.5	1.5

NASAL AREA: CLEAR
ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ☑ No
REBOUND DILATION: ☐ Yes ☑ No
Reaction to Light: LITTLE OR NONE VISIBLE

RIGHT ARM: SCAR

LEFT ARM: SCAR, SCABS, SCAR, PUNCTURE WOUNDS, OOZING FLUID

ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 110 / 60
TEMP: 97.5°

MUSCLE TONE: ☐ Near Normal ☑ Flaccid ☐ Rigid
Comments: NECK RUBBERY

What medicine or drug have you been using? I'M CLEAN NOW
How much? I'M NOT USING NOW
Time of use? HONEST I'M CLEAN
Where were the drugs used? (Location) I'M CLEAR

DATE/TIME OF ARREST	TIME DRE NOTIFIED	EVAL START TIME	TIME COMPLETED
10-2-96 1915	1915	1930	2016

CONTROL #	EXAMINING OFFICER	SERIAL NO	DIVISION	UNAVAILABLE DATES	REVIEWED BY
	[signature]	422B	NRB		Pryor M

DRUG INFLUENCE EVALUATION		Page 2 of 2
LOG NO.	DRE: Sgt. William Niles	ARRESTEE: Charles N. Neal

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of Charles N. Neal, took place in the holding area NRB

2. WITNESS: Arresting Officer Frank Milstead #4443 PPD

3. BREATH TEST: Officer Milstead administered breath test to Neal, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was assisting members of the Phoenix Police Department conduct a drug surveillance at Compton Terrace, prior to a 'Graceful Chickens' concert. Officer Milstead had received information, that there was a very drunk individual seated near the entrance to Compton Terrace. The subject appeared very sleepy and was very unsteady while walking, even while being supported.

5. INITIAL OBSERVATIONS: Writer observed subject seated in a chair his head was flopped down against his chest and he appeared to be sleeping. As he walked, he was very unsteady unsteady and stumbling. His pupils were constricted and his voice was low, slow, and raspy.

6. MEDICAL PROBLEMS: Subject indicated some nausea.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 1" side to side, 2" front to back, and estimated 58 seconds as 30 seconds. Walk and Turn: Subject lost his balance during the instructions, stopped walking, missed heel to toe, stepped off the line, and used his arms for balance. One Leg Stand: Subject was unable to perform test, and it was terminated for his safety. Finger to Nose: Subject missed tip of his nose each time, His movements were very slow, and his head was leaning forward towards his chest.

8. CLINICAL INDICATORS: Subject had constricted pupils. His pulse, blood pressure and body temperature were below the normal range.

9. SIGNS of INGESTION: Subject had several old track marks on both arms, and fresh puncture wounds on his left hand. All three of these were oozing clear fluid.

10. STATEMENTS: Subject made several statements about being "clean" and "not using now." He repeatedly answered "not sick" to questions concerning the use of medication. He also failed to respond to a couple of the questions

11. OPINION of EVALUATOR: In my opinion Charles N. Neal is under the influence of a Narc Anl and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS:

Page 1 of 2

DRUG INFLUENCE EVALUATION

EVALUATOR: STEVE TOLAND

BOOKING NO: 032 | DR: XXV-5

ARRESTEE'S NAME (LAST, FIRST, MI): OATES, JOHN F | AGE: 48 | SEX: M | RACE: W

ARRESTING OFFICER (NAME, SERIAL #, DIV.): GREEN, W #4196 MPD

DATE EXAMINED/TIME/LOCATION: 11-5-96 2100 MPD

BREATH RESULTS: ☐ Refused Results 0.00 Instrument # 1234

CHEMICAL TEST: ☐ Both Tests Refused ☒ Urine ☐ Blood

MIRANDA WARNING GIVEN: ☒ Yes ☐ No Given by: SGT TOLAND

What have you eaten today? MILKSHAKE When? NOON

What have you been drinking? How much? NOTHIN I DONT DRINK Time of last drink? N/A

Time now? MIDNIGHT When did you last sleep? TODAY How long? 2HRS

Are you sick or injured? ☐ Yes ☒ No I FEEL JUST FINE

Are you diabetic or epileptic? ☐ Yes ☒ No

Do you take insulin? ☐ Yes ☒ No

Do you have any physical defects? ☐ Yes ☒ No

Are you under the care of a doctor/dentist? ☐ Yes ☒ No

Are you taking any medication or drugs? ☐ Yes ☒ No

ATTITUDE: RAPID EMOTIONAL CHANGES LAUGHING TO CRYING

COORDINATION: UGLY POOR STUMBLING

SPEECH: MUMBLED, INCOHERENT, SHOUTING

BREATH: NORMAL

FACE: FLUSHED SWEATY

CORRECTIVE LENS: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft

Eyes: BUG EYED STARE ☐ Normal ☐ Bloodshot ☐ Watery

Blindness: ☒ None ☐ L. Eye ☐ R. Eye

Tracking: ☒ Equal ☐ Unequal

PUPIL SIZE: ☒ Equal ☐ Unequal (explain)

HGN Present: ☐ Yes ☒ No

Able to follow stimulus: ☒ Yes ☐ No

Eyelids: WIDE OPEN ☐ Normal ☐ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 116 / 2110	Lack of Smooth Pursuit	NO	NO
2. 108 / 2130	Max. Deviation	NO	NO
3. 112 / 2145	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☒ No

Convergence: Right Eye → Left Eye ←

ONE LEG STAND: TEST STOPPED — NEARLY FELL

BALANCE EYES CLOSED: 2 2 4 4 TEST STOPPED

WALK AND TURN TEST: TEST STOPPED COULD NOT STAND HEEL-TOE

Cannot keep balance: VVV

Starts too soon:

	1st Nine	2nd Nine
Stops Walking		
Misses Heal-Toe		
Steps off Line		
Raises Arms		
Actual Steps Taken		

L R
☐ ☐ Sways while balancing.
☐ ☐ Uses arms to balance.
☐ ☐ Hopping.
☐ ☐ Puts foot down.

INTERNAL CLOCK: N/A Estimated as 30 sec.

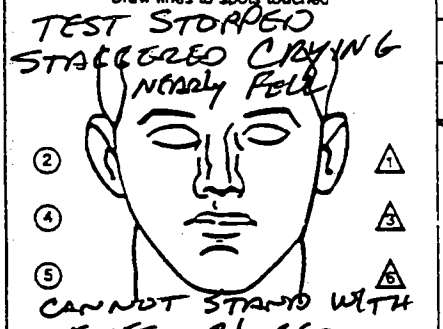
Describe Turn: N/A

Cannot do Test (explain): LOST BALANCE 3 TIMES NEARLY FELL

Type of Footwear: LOAFERS

○ Right △ Left

Draw lines to spots touched



PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	6.5	8.5	8.0	6.0
Right Eye	6.5	8.5	8.0	6.0

NASAL AREA: CLEAR

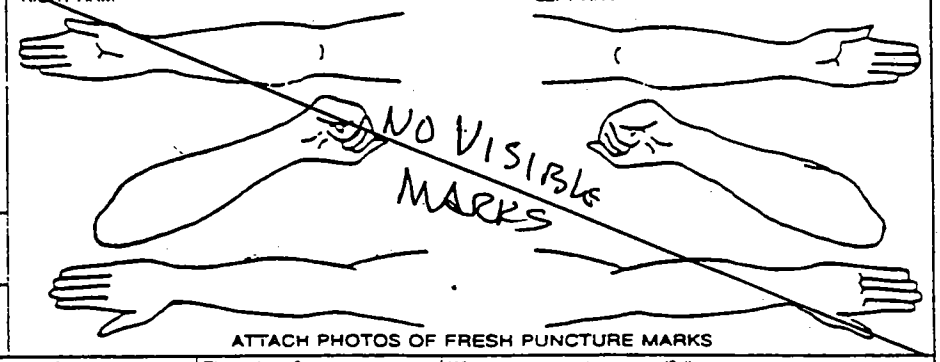
ORAL CAVITY: CLEAR

HIPPUS: ☐ Yes ☒ No

REBOUND DILATION: ☐ Yes ☒ No

Reaction to Light: NORMAL

RIGHT ARM / LEFT ARM



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

BLOOD PRESSURE: 156 / 102 TEMP: 99.8°

MUSCLE TONE: ☒ Near Normal ☐ Flaccid ☐ Rigid

Comments:

What medicine or drug have you been using? LAUGHING UNCONTROLLED How much? NO RESPONSE Time of use? LAUGHING Where were the drugs used? (Location) LAUGHING

DATE/TIME OF ARREST: 11-5-96 2050 HRS

TIME DRE NOTIFIED: 2055

EVAL START TIME: 2100

TIME COMPLETED: 2150

CONTROL #

EXAMINING OFFICER: Steve Toland

SERIAL NO: 1775

DIVISION: MPD

UNAVAILABLE DATES

REVIEWED BY: Shyox M

DRUG INFLUENCE EVALUATION Page 2 of 2

LOG NO.	DRE: Sgt. Steve Toland	ARRESTEE: John F. Oates

1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.

1. LOCATION: Examination of John F. Oates, took place in the DRE room, Mesa P.D. Hdqtrs

2. WITNESS: Arresting Officer William Green #4196 MPD

3. BREATH TEST: Officer Green administered breath test to Oates, the result was 0.00%.

4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio and advised to return to Hdqtrs to conduct a DRE evaluation. Officer Green informed me that the subject had nearly been involved in a head on accident.

5. INITIAL OBSERVATIONS: Writer observed subject seated in the breath test room at Hdqtrs. He was talking to himself and laughing uncontrolably.

6. MEDICAL PROBLEMS: None noted or stated

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 2" front to back, and 4" side to side. The test was terminated for the subjects safety. Walk and Turn: Subject was unable to complete, test terminated stopped for the subjects safety. One Leg Stand: Subject was unable to complete, test was terminated for the subjects safety. Finger to Nose: Subject was unable to complete.

8. CLINICAL INDICATORS: Subject's pupils were dilated , and his pulse, blood pressure and temperature were above the normal range.

9. SIGNS of INGESTION: None noted

10. STATEMENTS: Subject stated he had not used any drugs since the 60's

11. OPINION of EVALUATOR: In my opinion John F. Oates is under the influence of a Hallucinogen and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.

13. MISCELLANEOUS:

SESSION XXVI

PREPARING THE NARRATIVE REPORT

SESSION XXVI PREPARING THE NARRATIVE REPORT

Upon successfully completing this session, the participants will be able to:

- Discuss the essential elements of the drug evaluation report.
- Prepare a clear and concise narrative description of the results of the drug evaluation.

The Importance of a Good DRE Report

Successful prosecution of a DRE case will depend, more than anything else, on the evidence that **you** supply, and on how clearly and convincingly you **present** that evidence. The chemist or toxicologist may also be able to provide some important evidence, but the results of the blood or urine analysis definitely play a supportive, or corroborative role. The chemical test simply cannot prove that the suspect was impaired, or under the influence at the time the violation occurred. It is up to you to prove that, and to prove that the nature of the impairment was consistent with some category or categories of drugs. Your observations, examinations and your expertise are the prosecution's strongest weapons. In some cases, they will be the only weapons. You have to get your evidence across, and you have to make it as believable as possible. You start doing this in your DRE report.

The DRE Report has two major sections. The first is the standard Drug Influence Evaluation Face Sheet. Its purpose is to document the results of all observations and examinations that you personally made of the suspect. This Face Sheet is a unique document. It is used by every law enforcement agency that participates in the NHTSA/IACP Drug Evaluation and Classification Program. It contains some very important information, and it must be filled out accurately and completely. But it does not constitute the entire DRE report. A **narrative** section also must be prepared. The narrative section must be a clear, plain English and detailed rendition of all evidence obtained during all twelve components of the DRE examination, including the breath test result; the information obtained from your interview of the arresting officer; statements, actions, gestures, etc. made by the suspect; paraphernalia found in the suspect's possession; to name a few. Bear in mind that the Face Sheet is a **technical document**. As a DRE, you are very familiar with the Face Sheet, and with its various symbols, and abbreviations. But many prosecutors, most judges and virtually all jurors won't know how to read the Face Sheet. It is up to you to "translate" the Face Sheet and all other evidence into language that they can understand. That's where the narrative section of your report comes in.

Standard Procedures for Completing the Face Sheet

The Standard Drug Influence Evaluation Face Sheet must be completed, in its entirety, every time you conduct an evaluation of a person suspected of drug impairment. Follow the guidelines given in the paragraphs below every time you complete a Face Sheet.

The upper right corner of the standard Drug Influence Evaluation Report consists of spaces to record data consistent with your department's standard operating procedures.

EVALUATOR:	
BOOKING NO.	DR.
ARRESTING OFFICER *(NAME, SERIAL #, DIV.)*	

On the first three full lines of the report, you will record identifying information about the suspect, the arresting officer, and the time and place where the DRE examination was conducted. You will also note the results of the breath test (if available), and note the type of sample (blood or urine) taken for drug analyses. You will indicate whether the suspect was admonished of his or her constitutional rights in accordance with the Miranda ruling, and if so, by whom.

DRUG INFLUENCE EVALUATION

Page_____ of _____

ARRESTEE'S NAME *(LAST, FIRST, MI)*	AGE	SEX	RACE		
DATE EXAMINED/TIME/LOCATION	BREATH RESULTS: ☐Refused Results Instrument #		CHEMICAL TEST ☐Both Tests ☐Urine ☐Blood ☐Refused		
MIRANDA WARNING GIVEN: ☐Yes Given by: ☐No	What have you eaten today? When?		What have you been drinking? How much?		Time of last drink?

Starting on the third line, and continuing through the ninth line, you will record the results of the preliminary examination of the suspect. If the suspect merely responds "yes" or "no" to a question, you may simply put a mark through the appropriate box on the right side of the space provided for the question. But if they embellish the response, you should use the space provided to document the response. For example, if the suspect were to answer the question "what have you eaten today" in an obviously false or ridiculous manner ("I haven't eaten for six years"), you should record that answer verbatim.

Time Now?	When did you last sleep? How long?	Are you sick or injured? ☐Yes ☐No	Are you diabetic or epileptic? ☐Yes ☐No	
Do you take insulin? ☐Yes ☐No		Do you have any physical defects? ☐Yes ☐No	Are you under the care of a doctor/dentist? ☐Yes ☐No	
Are you taking any medication or drugs? ☐Yes ☐No		ATTITUDE	COORDINATION	
SPEECH		BREATH	FACE	
CORRECTIVE LENS: ☐None ☐Glasses ☐Contacts, if so ☐Hard ☐Soft		EYES: Blindness: Tracking: ☐Normal ☐Bloodshot ☐Watery ☐None ☐L. Eye ☐Rt. Eye ☐Equal ☐Unequal		
PUPIL SIZE: ☐Equal ☐Unequal (explain)		HGN Present: ☐Yes ☐No	Able to follow stimulus: ☐Yes ☐No	Eyelids: ☐Normal ☐Droopy

After completing the preliminary questioning of the suspect, be sure to record brief descriptions of their attitude, coordination, speech, breath and facial appearance. Check to determine the type of corrective lenses the suspect is wearing, if any, and record the general appearance of the suspect's eyes. Be sure to indicate whether the suspect is or claims to be blind in either eye. Check the suspect's tracking ability (just as you would test for lack of smooth pursuit), and indicate whether the eyes track equally, whether HGN is present and whether they are able to follow the stimulus. Note whether the suspect's pupils are of equal size, and the condition of their eyelids.

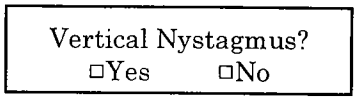
Almost midway down the form, and on the left side, is the space to record the three measurements of the suspect's pulse that are required during the DRE examination. Always record the pulse in beats per minute. For example, since you use a 30 seconds interval to count the pulse, be sure to multiply the count by two, and record that result on the form. Also, always record the time at which each pulse count was taken.

PULSE & TIME
1. _____/_____
2. _____/_____
3. _____/_____

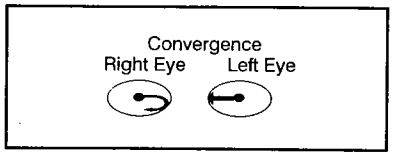
Record the results of the checks for Horizontal Gaze Nystagmus, Vertical Nystagmus and Lack of Convergence in the spaces at the center of the form. For HGN, write the word "YES" to indicate that there was a lack of smooth pursuit, and write "NO" if the eye does pursue smoothly. In other words, "YES" means that evidence of HGN is present and "NO" means that the evidence wasn't found. Similarly, along the "Max. Deviation" line, write "YES" if there is distinct jerking when the eye is held as far to the side as possible, and write "NO" if the eye does not jerk distinctly. Along the "Angle of Onset" line, write the number of degrees at which the jerking first is noticed; estimate the angle to the nearest five degrees (i.e., 30, 35, 40, etc.). If the eyes actually jerk while the suspect stares straight ahead, write the word "RESTING" on the "Angle of Onset" line. If the jerking begins before the eye has moved to the 30-degree point, write the word "IMMEDIATE". Be sure to check each eye independently, and record the evidence of HGN separately for each eye.

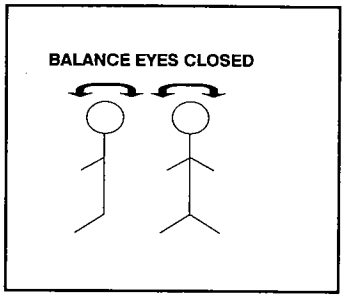
HGN	Left Eye	Right Eye
Lack of Smooth Pursuit		
Max. Deviation		
Angle of Onset		

For the Vertical Nystagmus test, simply check either the "YES" or "NO" box, depending on whether the evidence was present or absent.

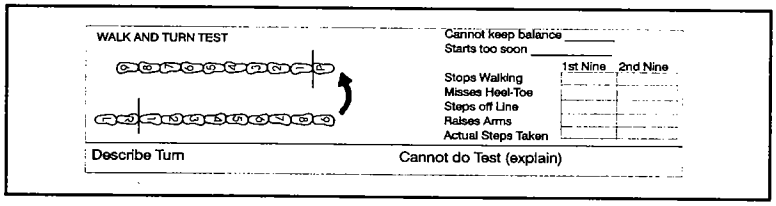


For the Convergence test, draw a circle in the middle of each "eye socket" provided on the form, and connect arrows to the circles to depict how the eyes moved when the test was given. For example, the sketch at the right shows that the left eye converged properly, while the right started to move in, and then drifted back out.



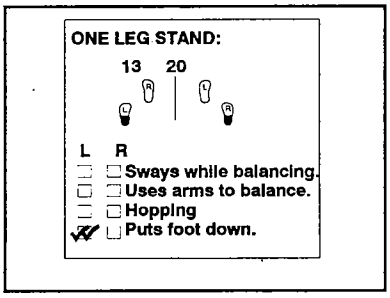


Spaces are provided to record in detail the suspect's performance of the four divided attention tests. Make sure that the Romberg Balance test is the first one that you administer. The two "stick figures" are used to indicate how much the suspect sways while standing with the eyes closed. The figure on the left (with only one arm and one leg visible) is used to depict front to back swaying; at the arrow points above the "head", write the approximate number of inches the suspect sways forwards and backwards from center. Write the word APPROXIMATE across the stick figures to indicate that it is not a measure but an estimate. The figure on the right (with two arms and legs) is used to depict side to side swaying. If the suspect sways in a circular manner, indicate by writing "Circular Swaying" across the "stick figures". In the space immediately below the "stick figures", write the number of seconds that the suspect actually stood with the eyes closed, while he or she attempted to estimate the passage of 30 seconds.



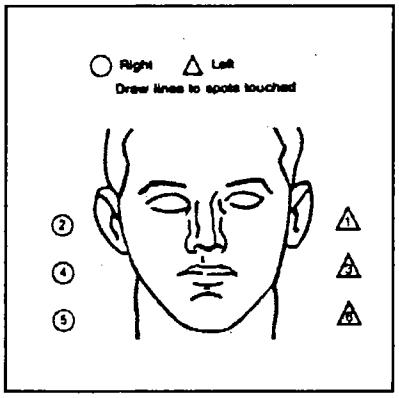
For the Walk and Turn test, you must diagram how the suspect walked, and you must indicate how often each of the eight validated clues was observed. On the diagram of steps, when the suspect steps off the line, indicate with half a slash mark at an angle in the direction the step was taken. If the suspect stopped walking, draw a slash mark between the feet. The sketch to the left, for example, diagrams a test on which the suspect moved the right foot to the side twice while listening to the instructions; stepped off the line toward the left on the fifth step; and stopped after the fourth step on the way back down the line after turning. If the suspect misses heel to toe, indicate it with a slash mark between the feet with an "M" marked underneath. If the suspects stops walking, indicate that with a slash mark between the feet with an "S" marked underneath.

Anything else that is unusual or note-worthy about how the suspect walked should be indicated in writing near the diagram (e.g., "stopped counting aloud after the third step"). In the spaces provided to the right of the diagram of the feet, use check marks to record how often each clue was seen and the actual numbers of steps the suspect took. In the space below the diagram of the feet, write a brief but clear description of how the suspect executed the turn; if he or she turned in the proper fashion, simply write "PROPER". If the suspect was unable to complete the test, write an explanation of why the test was stopped.



For the One Leg Stand, you will diagram when the suspect put the foot down (if at all) and you will indicate how often each of the four validated clues was observed. Always have the suspect first perform this test by standing on the left foot. If the suspect puts the elevated foot down, indicate above the foot the number they were counting when they put their foot down. In our example, the suspect put the right foot down when they had counted to "one thousand and fifteen" and again when the count reached "one thousand and twenty-two". Put check marks in or near the boxes below the sketch to indicate how often each of the four clues was seen while the suspect stood on the left foot. Place the count the suspect reached in 30 seconds in the top of the box over the foot they were standing on.

Then, have the suspect repeat the test by standing on the right foot, and use the right side sketch to record the results of that test. In the box below, indicate the type of footwear the suspect was wearing while performing these tests.



For the Finger to Nose test, you will diagram exactly where each finger tip touched the suspect's face. Simply draw a line from the point of contact on the face to the symbol representing each finger (this makes it easier to draw a straight line). The finger symbols are numbered in the sequence in which you should instruct the suspect (i.e., "left, right, left, right, right, left"). If the suspect inadvertently uses the incorrect hand at some point, draw in an additional appropriate symbol (circle or triangle), write the trial number in it (1 to 6) and draw a line from it to the spot touched on the face. Then, cross out the symbol for the finger that he or she should have used on that trial. For example, in the sketch above, the suspect actually used the right hand index finger on the third trial, rather than the left hand as instructed.

Pupil size estimations are to be recorded in the boxes provided. Using a pupillometer, record the size of the circle that comes closest to the size of the pupil. If a pupil appears to be slightly smaller than the 3.0mm circle, DO NOT write 2.8 or 2.9 as the pupil size record to the nearest 1/2 mm!

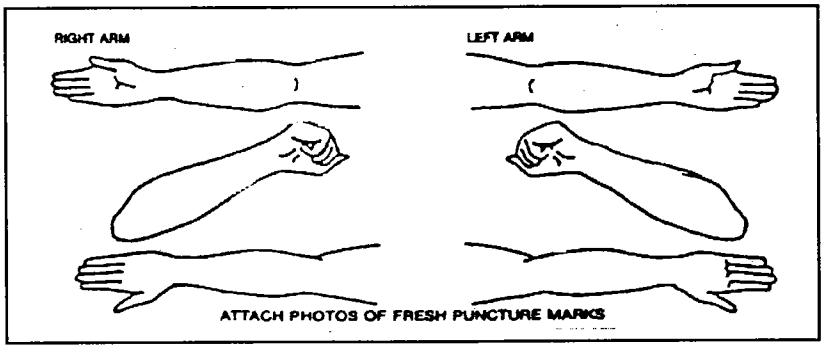
PUPIL SIZE	Room Light	Darkness	Indirect	Direct	NASAL AREA
Left Eye					ORAL CAVITY
Right Eye					
HIPPUS □Yes □No		REBOUND DILATION □Yes □No		Reaction to Light	

In the spaces provided, write a brief but clear description of anything noteworthy that you found in your examinations of the suspect's nose and mouth. If hippus or rebound dilation is observed, note that in the appropriate space. Remember, hippus refers to a pulsating pupil that rhythmically contracts and expands within fixed limits, for example always dilating to 5.0mm and always shrinking back to 4.0mm. Rebound dilation also involves pulsating pupils, but with an overall trend towards greater and greater dilation. For example, the pupil might initially expand to 5.0mm, constrict, and then "balloon out" to 5.5mm, constrict, then to 6.0mm, etc. REMEMBER that sloppy procedure with the penlight could induce a response that could be confused with rebound dilation or hippus. If you inadvertently move the penlight closer to the suspect's eye and then draw it farther away, you will change the intensity of the light flooding into the eye and you may cause the pupil to constrict or dilate. Make sure that you always hold the light steady while making these examinations.

In the space provided, indicate how the suspect's pupils reacted when the light was directed into the eye. If the reaction appeared to be normal, write "Normal"; if it appeared to be a slow reaction but some shrinkage of the pupil was evident, write "Slow"; if the pupil did not appear to shrink at all, write "None". Approximately 1 second is normal.

Record both the systolic and diastolic blood pressure (in even numbers), and the suspect's body temperature, in the spaces provided. Also indicate whether the suspect's muscle tone appeared to be rigid, flaccid or normal.

BLOOD PRESSURE	TEMP
_____/_____	_____°



You will examine the suspect's arms and hands for punctures or "track marks", and you will sketch anything noteworthy that you find. Draw lines on the arm and hand pictures to indicate the locations and lengths of scars, and draw x-marks to depict puncture sites. Always describe the condition of puncture sites (e.g., "red dots, oozing fluid"). It is always good practice, and it is standard operating procedure for many departments, to take photographs of a suspect's fresh puncture sitess. If photos have been taken, indicate on the sketch which areas were photographed. If the examination discloses no punctures, scars or anything else worthy of note, draw a diagonal line across the sketches of arms and hands and write "No Visible Marks" on that section of the form.

On the third line from the bottom, record the suspect's responses to the final three questions. Remember that most if not all courts generally hold that a suspect must be advised of constitutional rights before these kinds of questions should be asked.

What medicine or drug have you been using? How Much?	Time of use?	Where were the drugs used? (Location)

The last two lines on the form are used to record information about basic time parameters of concern to the evaluation, and to record additional pertinent information about you, the DRE who conducted the evaluation. If another DRE supervised your evaluation, their name should be written in the final block on the lower right corner of the form. That is especially important during your certification training phase.

The reverse side of the form should be used for the narrative Drug Evaluation Report, and continuation sheets should be attached, as appropriate. Guidelines for organizing the narrative report are given below.

Guidelines for writing the narrative report

The narrative portion of a standard DRE report has thirteen segments.

a. **The Location**

State where the drug recognition evaluation was conducted.

Example:

Evaluation of Subject Richardson was conducted in the DRE room, Jail Division, Parker Center.

b. **Witnesses**

Give names, agency affiliations and other identifiers of any persons who witnessed all or portions of the evaluation. State the person who served as the evaluator and recorder with complete agency names.

Example:

Derald Gautier, Denver, Colorado Police Department served as a witness for the entire evaluation. Sgt. Tom Page, Los Angeles, California Police Department served as the evaluator. Officer Jim Brown, Los Angeles, California Police Department, served as the recorder.

c. **The Breath Alcohol Test**

Indicate if the test was taken, and state who administered the test. Give the test results, the time of the test and state the serial number or other identifier of the instrument on which the test was taken.

d. **The Notification and Interview of the Arresting Officer**

Indicate when you were first notified of the request for a drug evaluation, and summarize the information you were given at that time. State where you were and what you were doing when the request was received. Include a summary of your interview of the arresting officer.

Example:

On 3/17/xx, at 2145 hours, this officer ... was notified by Officer John ... that he had arrested one Richardson. ... Officer Page requested that I conduct a drug influence examination ...

Officer John informed me that Subject Richardson's vehicle was observed moving ... at approximately 15 mph. Vehicle maintained speed as it passed stop sign ... Officer John activated lights/siren. Subject vehicle responded slowly ... Subject Richardson appeared to be asleep ...

e. **Initial Observation of the Suspect**

Document in detail your personal initial observations of the suspect. Describe where and when you first saw the suspect. Highlight any noteworthy or unusual actions, appearances, etc. that you observed. Summarize the findings of your Preliminary Examination of the suspect.

Example:

I first saw Richardson at 2200 hours ... He wore a 3-pc business suit ... Subject walked slowly, staggered ... swayed constantly ... head nodded forward repeatedly ... (etc.)

f. **Medical Problems and Treatment**

Describe your own observations concerning possible injuries or illness that the suspect may be suffering. Document suspect's statements or claims concerning illness or injury. Document any medical attention or treatment that the suspect received while in your care.

g. **Psychophysical Indicators of Impairment**

Give a brief but clear, complete and accurate description of the suspect's performance of the Romberg, Walk and Turn, One Leg Stand and Finger to Nose tests.

Example:

Romberg Balance: Forward sway up to 7 inches; backward sway up to 5 inches. Actual elapsed time of 55 seconds when estimating 30 seconds.

h. **Clinical Indicators of Impairment**

Give a brief but clear, complete and accurate description of your examinations of the suspect's eyes, vital signs and any tremors observed.

Example:

Horizontal gaze nystagmus: Lack of smooth pursuit (both eyes); distinct nyst. at max. dev. (right eye only); no angle of onset up to 50 deg. (both eyes). Total of 3 clues of nystagmus. Eyelid tremors during Romberg.

i. **Signs of Ingestion**

Document the results of your examinations of the suspect's oral and nasal cavities, search for injection marks, etc. Describe any odors detected on the suspect's breath, hands, clothing, etc. Describe any physical debris of drugs or drug paraphernalia found on the suspect's person.

Example:

Left arm: Three recent puncture wounds (red dots, oozing fluid). One-inch "track mark" scar. (Photo attached.)

j. **Subject's Statements**

Document the subject's statements, both in response to your questions and spontaneous utterances. Use verbatim quotes whenever possible. Document your Miranda admonition to the suspect and his or her waiver.

Example:

Subject Richardson repeatedly denied using drugs. At one point....he responded "Do I look like I do Dope?" Subsequently,....he responded "Go have a heart attack".

k. **The DRE's Opinion**

State the category or combination of categories of drugs that you believe is/are affecting the suspect. State your opinion concerning the suspect's ability to operate a vehicle safely, if vehicle operation is relevant to this case.

Example:

In the opinion of this officer, Subject Richardson is under the influence of a Narcotic Analgesic, and is unable to operate a vehicle safely.

l. **The Toxicologic Sample**

State the type of sample (blood, urine, etc.) taken from the suspect. Give the name, title, agency affiliation, etc. of the person who drew the sample or observed its collection. State where the sample was taken and to whom it was given. If the results of the toxicologic analysis are known at the time the report is written, state those results. If the suspect refused to submit a sample, state that fact in the report.

m. **Miscellaneous**

Include any other information that might be relevant.

Example:

Based on the observations of Subject Richardson, this officer infers that the subject is right handed. This would be consistent with hypodermic injection into his left arm.

The remaining pages of this section of the Manual provide a complete sample DRE report, on Subject Page.

Page 1 of 1

DRUG INFLUENCE EVALUATION

EVALUATOR: PAGE, TOM

BOOKING NO.: 16245 | DR.: 12050A

ARRESTEE'S NAME (LAST, FIRST, MI): RICHARDSON, MIKE E | AGE: 33 | SEX: M | RACE: W

ARRESTING OFFICER (NAME, SERIAL #, DIV.): JOHN, CLARK

DATE EXAMINED/ TIME/LOCATION: 11-17-92, 2200 HRS, PARKER CTR.

BREATH RESULTS: ☐ Refused — Results: .00 — Instrument #: 1298

CHEMICAL TEST: ☑ Urine ☐ Blood ☐ Both Tests Refused

MIRANDA WARNING GIVEN: ☑ Yes ☐ No — Given by: JOHN, CLARK

What have you eaten today? When?: Nothing

What have you been drinking? How much?: NONE

Time of last drink?: N/A

Time now?: 2200

When did you last sleep? How long?: LAST NIGHT, 5HRS

Are you sick or injured? ☐ Yes ☑ No

Are you diabetic or epileptic? ☐ Yes ☑ No

Do you take insulin? ☐ Yes ☑ No

Do you have any physical defects? ☐ Yes ☑ No

Are you under the care of a doctor/dentist? ☐ Yes ☑ No

Are you taking any medication or drugs? ☐ Yes ☑ No

ATTITUDE: COOPERATIVE

COORDINATION: Poor

SPEECH: Slow, raspy & low

BREATH: Normal

FACE: appeared sleepy

CORRECTIVE LENS: ☑ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft

EYES: ☑ Normal ☐ Bloodshot ☐ Watery

BLINDNESS: ☑ None ☐ L Eye ☐ R Eye

TRACKING: ☑ Equal ☐ Unequal

PUPIL SIZE: ☑ Equal ☐ Unequal (explain)

HGN Present: ☑ Yes ☐ No

Able to follow stimulus: ☑ Yes ☐ No

Eyelids: ☐ Normal ☑ Droopy

PULSE & TIME	HGN	Left Eye	Right Eye
1. 60 / 2203	Lack of Smooth Pursuit	YES	YES
2. 58 / 2216	Max. Deviation	No	YES
3. 58 / 2236	Angle of Onset	NONE	NONE

Vertical Nystagmus? ☐ Yes ☑ No

Convergence: Right Eye → Left Eye ←

ONE LEG STAND: 6 / 15

BALANCE EYES CLOSED: 4" 4" 4" 4"

WALK AND TURN TEST: SLOW & DELIBERATE

Cannot keep balance: ____

Starts too soon: ____

	1st Nine	2nd Nine
Stops Walking		
Misses Heel-Toe	√√√	√√
Steps off Line		
Raises Arms	√√	√√
Actual Steps Taken		

☑ L ☑ R Sways while balancing.
☑ ☑ Uses arms to balance.
☐ ☐ Hopping.
☑ ☑ Puts foot down.

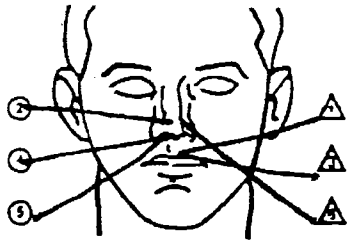
INTERNAL CLOCK: 45 Estimated as 30 sec.

Describe Turn: As directed

Cannot do Test (explain):

Type of Footwear: TENNIS

○ Right △ Left — Draw lines to spots touched



USE WRONG HAND #5

PUPIL SIZE	Room Light	Darkness	Indirect	Direct
Left Eye	2.5	3.0	2.5	2.6
Right Eye	2.6	3.0	2.5	2.6

NASAL AREA: Normal

ORAL CAVITY: Normal

HIPPUS: ☐ Yes ☑ No

REBOUND DILATION: ☐ Yes ☑ No

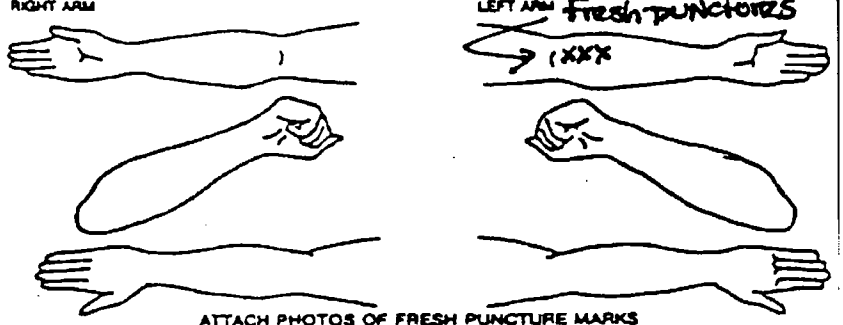
Reaction to Light: NONE VISIBLE

BLOOD PRESSURE: 112 / 56 TEMP: 97.7 °

MUSCLE TONE: ☐ Near Normal ☑ Flaccid ☐ Rigid

Comments:

RIGHT ARM / LEFT ARM — Fresh punctures (XXX)



ATTACH PHOTOS OF FRESH PUNCTURE MARKS

What medicine or drug have you been using? How much?: DENIED ANY DRUG USAGE

Time of use?: N/A

Where were the drugs used? (Location): N/A

DATE/TIME OF ARREST: 11-17-92, 2145 HRS.

TIME DRE NOTIFIED: 2145 HRS

EVAL START TIME: 2200 HRS

TIME COMPLETED: 2236 HRS.

CONTROL #	EXAMINING OFFICER	SERIAL NO.	DIVISION	UNAVAILABLE DATES	REVIEWED BY
92-17	PAGE, TOM	0025	TRAFFIC	12-25-92	KEN CLARK

DRUG INFLUENCE EVALUATION NARRATIVE

1. LOCATION: Evaluation conducted in DRE room of Jail Division, Parker Center.

2. WITNESSES: Sgt. Tom Page, Los Angeles Police Department, Evaluator. Officer Jim Brown, Los Angeles Police Department, Recorder. Derald Gautier, Denver, Colorado Police Department, Witness.

3. BREATH ALCOHOL TEST: Officer Clark John obtained a .00% BrAC from Richardson at 2140 hrs.

4. THE NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: At approximately 2145 hours Officer John requested that I conduct a DRE evaluation on suspect Richardson. Richardson had been arrested by John for DUI. Impairment was not consistent with the .00% BrAC obtained from Richardson. Officer John stated he stopped Richardson after observing him commit numerous Traffic Violations. John stated that Richardson appeared sleepy, "on the nod", and that his voice was low in volume, raspy in tone and slow in tempo. Richardson failed to perform psychomotor tasks of the SFST as demonstrated.

5. INITIAL OBSERVATION OF SUSPECT: I first observed Richardson in the DRE room at approximately 2200 hrs. Richardson walked very slowly, staggered and stumbled without falling. As he stood while John removed his handcuffs, Richardson swayed constantly and his head nodded forward. I advised Richardson of his Miranda Rights which he waived. Richardson responded to all questions in a slow, raspy, low voice. Eyelids were droopy. Pupils appeared constricted. First pulse was 60 BPM.

6. MEDICAL PROBLEMS AND TREATMENT: Suspect claimed no illness or injury. No evidence of injury or illness observed.

7. PSYCHOPHYSICAL: Richardson exhibited impairment throughout all portions of the psychophysical exams. Romberg-swayed 3 inches side to side and slowed internal clock at 52 seconds, his head dropped forward during the test. Walk and Turn- lost balance during instructions, staggered, raised arms throughout the test, failed to touch heel to toe and turned improperly nearly falling. One Leg Stand- counted very slowly to 12 (left) and 15 (right),swayed 3 inches side to side throughout the test, raised arms even with shoulders during the test and put his foot down a total of 7 times. Finger to Nose- Richardson responded to commands very slowly, used the wrong hand twice and did not correctly touch the tip of his nose on any of the 6 attempts.

8. CLINICAL INDICATORS: EYES: Lack of smooth pursuit was observed in both eyes. No angle of onset or Vertical Nystagmus was seen. Lack of Convergence was present. Richardson's pupils were constricted below normal range in all light levels with no visible reaction to direct light observed. Ptosis (droopy eyelids) was evident. VITAL SIGNS: Richardson's pulse was below the normal range at 60, 58 and 58 BPM. Systolic Blood Pressure was below the normal range at 114/78. Body temperature was within normal range.

9. SIGNS OF INGESTION: Three fresh puncture sites were found on Richardson's left forearm. (photo attached).

10. SUSPECT'S STATEMENTS: Richardson denied any drug usage. He states that he is right handed, and the puncture sites found were from thorns scratching him while gardening earlier in the day.

11. DRE'S OPINION: In my opinion, Richardson is under the influence of a Narcotic Analgesic and is unable to safely operate a vehicle.

12. TOXICOLOGICAL SAMPLE: A urine sample was obtained from Richardson at 2334 hours. Page and I witnessed elimination by the suspect. I sealed the sample and placed it in property for crime lab analysis.

13. MISCELLANEOUS: Three syringes with needles were found by Officer John in Richardsons' vehicle.

SESSION XXVII

PRACTICE: TEST ADMINISTRATION

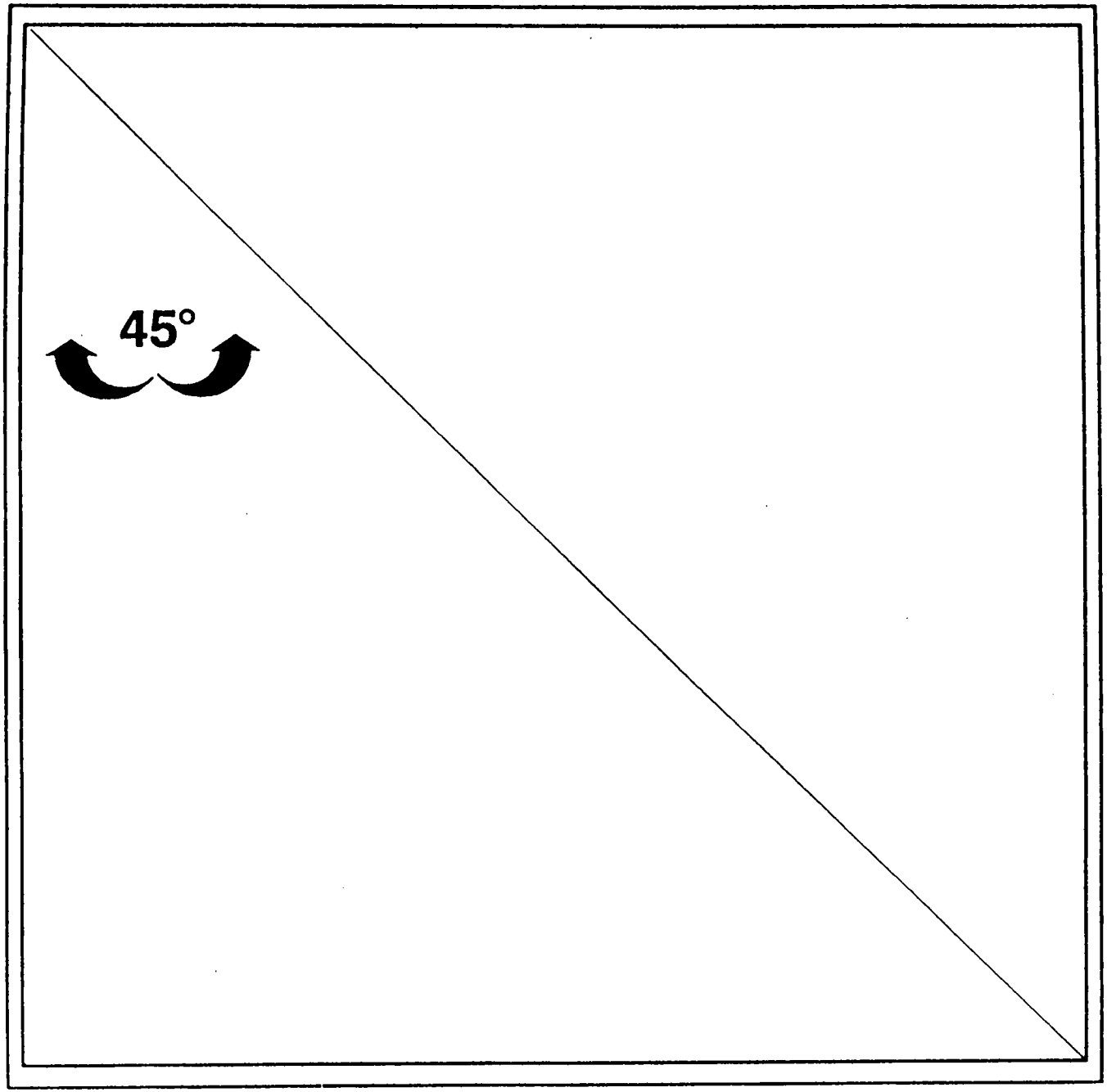
SESSION XXVII PRACTICE: TEST ADMINISTRATION

Upon successfully completing this session, the participants will be better able to:

- Administer selected portions of the battery of examinations that constitute the Drug Evaluation and Classification process.
- Articulate the examinations procedures.
- Document the results of the evaluations.

In this session, you will have an opportunity to practice conducting a complete Drug Evaluation and Classification Examination. You will work in a team with one or two fellow students. When you conduct the examinations, your teammate will serve as your test subject. And, you will serve as the subject for a teammate when he or she conducts the examination.

This is an opportunity for you to practice the components of the examination in a controlled setting. Gaining confidence in your ability to conduct the examination now will assist you when you are examining drug impaired subjects who may not be as cooperative as your fellow students. When not serving as a test subject or examiner, pay close attention to the examination conducted by your team members.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SESSION XXVIII

CASE PREPARATION AND TESTIMONY

SESSION XXVIII CASE PREPARATION AND TESTIMONY

Upon successfully completing this session, the participants will be able to:

- Conduct a thorough pre-trial review of all evidence and prepare for testimony.
- Provide clear, accurate and descriptive direct testimony concerning Drug Evaluation and Classification Examinations.
- Respond effectively and appropriately to cross-examination in Drug Evaluation and Classification cases.

A. Guidelines for Case Preparation

Case preparation actually begins with your first contact with the suspect. At that point you begin "collecting" the evidence that you will organize and present at trial.

To begin properly, make sure that you complete each portion of the standard Drug Evaluation and Classification report form. Be especially careful to take accurate notes of your observations of the suspect, and to record their statements accurately. Note and document all relevant information you obtain during your interview of the arresting officer.

When you are notified of the trial date, you should conduct a careful review of all records and reports associated with the case. If you made the arrest, or were summoned to the scene, revisit the scene. During discovery, list and properly document all evidence. Compare your notes with the arresting officer, and clarify or resolve any discrepancies, if possible.

If at all possible, try to arrange a pre-trial conference with the prosecutor. Review with the prosecutor all evidence and all bases for your conclusions. If there are weak points in your case, bring them to the prosecutor's attention. Ask the prosecutor to review the questions he or she intends to ask you on the witness stand. Point out when you do not know the answer to a question. Ask the prosecutor to review questions and tactics that they anticipate the defense attorney may use. Make sure your resume is current. Review your credentials and qualifications with the prosecutor. Offers to assist and educate prosecutors are usually appreciated.

If you cannot have a pre-trial conference, try to identify the main points about the case, and be sure to discuss these with the prosecutor during the few minutes you will have just before the trial. It is important for you to advise a prosecutor that has no experience in DRE, that the case can not be treated like a, "typical DUI case".

B. Guidelines for Direct Testimony

1. Testifying about your qualifications as a Drug Recognition Expert.

   Remember that having been qualified as an expert in the past does not automatically guarantee that this court and judge will deem that you are an expert in this case. You may have to testify in some detail as to your relevant training, education and experience. In fact, it often is to the prosecution's advantage to have you provide such detailed testimony:

juries and even judges may be favorably impressed by the depth and scope of your experience and other credentials, and may attach added "weight" to your opinions and conclusions if they have had an opportunity to learn how well qualified you are to render them. For this reason, you should encourage the prosecutor, if possible, not to accept the defense's stipulation as to your expertise. Instead, always try to enter testimony as to your credentials into the record.

When testifying about your qualifications, try to relate your training and experience to the specific categories of drugs involved in the case at hand. Highlight the number of times you have seen a person under the influence of those categories. Explicitly highlight the number of times you have examined subjects and concluded they were not under the influence of drugs: this helps to demonstrate the fairness and impartiality of your examinations.

2. Testifying about the facts of the case.

Your basic task is to establish that the suspect was under the influence of a drug or combination of drugs. When you testify about the suspect's performance of the Standardized Field Sobriety Tests, do not use the terms "pass" or "fail". Also, do not refer to the suspect's "score" on the test or the number of "points" he or she produced. Instead, describe clearly and explicitly how the suspect performed (e.g., "stepped off the line twice, raised the arms three times, etc."). By presenting your observations clearly and convincingly, you will allow the fact of the suspect's impairment to speak for itself. In the same way, describe exactly what you observed and measured during the eye examinations and vital signs examinations, and relate these observations and measurements to your training and experience. In this way you will establish a solid foundation for introducing your opinions and conclusions.

Always keep in mind that juries typically focus on an officer's demeanor as much or more than on the content of their testimony. Strive to maintain your professionalism and impartiality. Be clear in your testimony: explain technical terms in layman's language; don't use jargon, abbreviations, acronyms, etc. Be polite and courteous. Do not become agitated as a result of questions by the defense. Above all, if you don't know the answer to a question, say so. Don't guess at answers, or compromise your honesty in any way.

C. Introduction of Evidence Involving "New" Scientific Principles

As a Drug Recognition Expert, you will be asked to offer opinions and conclusions based on scientific principles that are quite unfamiliar to the jury or even to the judge. These principles aren't really "new", but they are newly discovered, and they aren't yet within the common realm of knowledge of average people. Your task is to help see to it that the evidence you have obtained through your special knowledge and your hard work will be acceptable to the court.

Evidence derived from a "new" scientific principle is subjected to the Frye standard of admissibility. This standard derives from the landmark case Frye vs. United States, 293F. 1013 (D.C. Cir. 1923). Frye requires that the scientific principle or theory used to support some offered "evidence" be in conformity with a generally accepted explanatory theory, if the "evidence" is to be admissible. Under Frye, it is not enough that a qualified expert, or even several experts, testify that a particular scientific technique is valid. The technique must be generally accepted by the relevant scientific community.

Courts in many states have ruled that the Drug Evaluation and Classification protocol is not subject to the Frye standard, as the techniques and principles of the protocol are not new or novel. In this situation, the DRE's challenge is to establish a foundation for admissibility of the evidence gained during the evaluation of the defendant. The DRE officer's training and experience is critical to establishing this foundation for admissibility. The DRE's demeanor and credibility will heavily impact the "weight" the judge or jury gives to this evidence.

D. Typical Defense Tactics

In a DRE case, you will be the key witness for the prosecution. Therefore, the defense will try very hard to cast doubt on your testimony.

The defense may ask some questions to challenge your observations and interpretations. For example, you may be asked whether the signs, symptoms and behaviors you observed in the suspect couldn't have been caused by an injury or illness, or by alcohol, or by something else other than the drugs you concluded were present. You may also be asked questions whose purpose is to make it appear that you weren't really certain that you actually saw what you say you saw. Answer these questions honestly, but carefully. If your observations are not consistent with what an illness or injury or alcohol would produce, explain why not. Make it clear that your conclusions about drug influence are not simply one plausible interpretation of the observed facts, but the only logical interpretation.

The defense may also ask some questions to challenge your credentials. These questions may try to disparage or deprecate the formal training you have had as a DRE. There may also be an attempt to ask questions to "trip you up" on technical or scientific issues, to make it appear that you are less knowledgeable than you should be or claim to be. Stick to absolute honesty. Answer all questions about your training fully and accurately, but don't embellish. Don't try to make the training appear to have been more elaborate or extensive than it really was.

Answer scientific and technical questions if you know the answer. Otherwise, admit that you don't know. Don't try to fake or guess the answers.

The defense may ask questions to challenge your credibility. you may be asked several very similar questions, in the hope that your answers will be inconsistent. You may be asked questions whose purpose is to show that you had already formed your opinion well before you completed the examination of the suspect. And, you may be asked questions that try to suggest that you eliminated portions of the examination, or only gave very cursory attention to some portions. Guard against these kinds of defense challenges by always performing a complete, painstaking examination, exactly as you have been taught. Standardization will help ensure both consistency and credibility.

E. Test Your Knowledge

The Final Written Examination for this School will take place during Session XXX. This is an opportunity for you to test your knowledge prior to the exam, to verify that you are ready for it. The test that appears on the following pages is similar to the final exam in terms of its content and structure, although it does not (of course) contain the same questions. Take this sample test, and compare your answers with the answer key that appears on the page following the test.

A SELF-TEST FOR REVIEW AND STUDY

Circle the letters corresponding to the correct answers. Note that some questions have **more than one** correct answer.

1. Suppose you examine a suspect that you know is under the combined influence of Demerol and Thorazine. Which of the following would you **not** expect to find in that suspect? (Circle all that you wouldn't expect to see.)

   A. Tachycardia is present
   B. Horizontal Gaze Nystagmus is present
   C. Hypotension is present
   D. Mydriasis is present
   E. Lack of Convergence is present

2. The Autonomic Nervous System has **sympathetic** nerves and _____ nerves.

   A. parasympathetic
   B. metasympathetic
   C. postsympathetic
   D. mesosympathetic
   E. pilosympathetic

3. Suppose you examine a suspect that you know is under the combined influence of Ketamine and Methamphetamine, and you observe that he or she exhibits Horizontal Gaze Nystagmus. This is an example of ....

   A. A Synergistic Effect
   B. An Antagonistic Effect
   C. The Null Effect
   D. An Overlapping Effect
   E. An Additive Effect

4. The technical term meaning "constricted pupils" is ....

   A. Mydriasis
   B. Occulosis
   C. Miosis
   D. Bruxism
   E. Ptosis

5. **Chloral Hydrate** is an example of ....

A. a Non-Barbiturate
B. an Anti-Psychotic Tranquilizer
C. an Anti-Depressant
D. a Barbiturate
E. an Anti-Anxiety Tranquilizer

6. **Numorphan** is an example of ....

A. a Synthetic Opiate
B. an Analog of Phencyclidine
C. a Natural Alkaloid of Opium
D. an Opium Derivative
E. a non-Amphetamine-based Stimulant

7. Which of the following ordinarily <u>will</u> induce Horizontal Gaze Nystagmus? (Circle <u>all</u> that usually enhance nystagmus.)

A. Methamphetamine
B. Valium
C. The combination of Cocaine and Xanax
D. The combination of Cannabis and LSD
E. The combination of Heroin and Dilaudid

8. **Ritalin** is an example of ....

A. a CNS Stimulant
B. a Narcotic Analgesic
C. an Hallucinogen
D. a CNS Depressant
E. an Analog of Phencyclidine

9. Suppose you examine a suspect that you <u>know</u> is under the combined influence of Heroin and PCP, and you observe that he or she exhibits **miosis**. This is most likely due to ....

A. The "Downside" of Heroin
B. An Overlapping Effect between the two drugs
C. An Antagonistic Effect between the two drugs
D. An Additive Effect between the two drugs
E. The "Downside" of PCP

10. Which of the following usually will be true in a subject who is under the influence of an Hallucinogen? (Circle all that usually will be true.)

A. Pupils will be constricted
B. Body temperature will be elevated
C. Eyes will be unable to converge
D. Blood pressure will be elevated
E. Horizontal Gaze Nystagmus will be present

11. Which of the following is not classified as an Hallucinogen? (Circle all that **are not** Hallucinogens.)

A. ETOH
B. DOM
C. MDMA
D. MPPP
E. THC

12. Which of the following ordinarily will leave body temperature within the normal range? (Circle all that usually don't affect body temperature.)

A. CNS Stimulants
B. Phencyclidine
C. Cannabis
D. CNS Depressants
E. All of the above **usually do** affect body temperature

13. Suppose you examine a suspect that you know is under the combined influence of Percodan and Cannabis, and you find that the suspect's pulse rate is 74 bpm. This is most likely due to ....

A. An Additive Effect between the two drugs
B. The "Downside" of Cannabis
C. An Overlapping Effect between the two drugs
D. An Antagonistic Effect between the two drugs
E. The "Downside" of Percodan

14. How many distinct, validated clues have been established for the Romberg Balance test?

A. Eight
B. Six
C. Four
D. Three
E. There are **no validated** clues for that test.

15. A person under the combined influence of Ritalin and LSD usually will have above normal blood pressure. This is an example of ....

A. An Overlapping Effect
B. A Synergistic Effect
C. The Null Effect
D. An Additive Effect
E. An Antagonistic Effect

16. The gap between two nerve cells is called the ....

A. Vesicle
B. Neuron
C. Synapse
D. Dendrite
E. Axon

17. **"Ptosis"** most nearly means ....

A. Dilated pupils
B. Grinding the teeth
C. Constricted pupils
D. Droopy eyelids
E. Goose bumps

18. How many distinct, validated clues have been established for the Walk-and-Turn test?

A. Eight
B. Six
C. Four
D. Three
E. There are **no validated** clues for that test.

19. Which of the following are not subcategories of Inhalants? (Circle all that are not proper names for Inhalant Subcategories.)

A. Fluorocarbons
B. Anesthetic Gases
C. Aerosols
D. Volatile Solvents
E. Propellants

20. **Phencyclidine** is best described as ....

A. parasympathomimetic
B. an anti-depressant
C. a cellular stimulant
D. psychotophobic
E. a dissociative anesthetic

21. Which of the following usually **will not cause** the pupils to dilate? (Circle <u>all</u> that usually do not cause dilation.)

A. MDMA
B. Methaqualone
C. Biphetamine
D. Peyote
E. Ketamine

22. Which subcategory or subcategories of Inhalants usually cause blood pressure to **be below normal**? (Circle <u>all</u> that usually cause below normal blood pressure.)

A. Anesthetic Gases
B. Propellants
C. Volatile Solvents
D. Aerosols
E. Fluorocarbons

23. Which of the following are **Natural Alkaloids** of opium? (Circle <u>all</u> that are Natural Alkaloids.)

A. Metopon
B. Dilaudid
C. Codeine
D. Thebaine
E. Hycodan

24. **"Crank"** is a street name for ....

A. Heroin
B. Cocaine
C. PCP
D. Methamphetamine
E. LSD

25. Which of the following are **not validated clues** for the One Leg Stand test? (Circle <u>all</u> that aren't validated clues.)

A. Hopping
B. Raising the arms
C. Putting the foot down
D. Failing to count out loud
E. Swaying

26. Which of the following would be considered **sympathomimetic** drugs? (Circle <u>all</u> that are sympathomimetic.)

A. MDMA
B. Dexedrine
C. Xanax
D. Metopon
E. Desoxyn

27. Suppose you examine a suspect, and you observe **all** of the following: Horizontal Gaze Nystagmus is present, with an onset of approximately 30 degrees; BAC is 0.00%; eyes are unable to converge; pupil size is 5.5mm in near-total darkness and 3.5mm in direct light; pupil reaction to light is within normal; pulse rate is 100 bpm; blood pressure is 148/96; body temperature is 99.8 degrees. In your opinion, this suspect is under the influence of ....

A. a combination of a CNS Depressant and a CNS Stimulant
B. a CNS Depressant alone
C. PCP, or an analog of PCP, alone
D. a combination of PCP (or an analog) and a CNS Stimulant
E. a combination of a CNS Depressant and Cannabis

28. The only artery that carries **de-oxygenated** blood is the ____ artery.

A. Carotid
B. Brachial
C. Pulmonary
D. Radial
E. Coronal

29. Suppose a subject is under the influence of **Hycodan** and nothing else. Indicate whether each of the following will be true or false:

A.	T F	Horizontal Gaze Nystagmus will not be present
B.	T F	Pupils will be constricted
C.	T F	Bradycardia will be present
D.	T F	Eyes will be able to converge
E.	T F	Hypotension will be present

30. **"Bruxism"** most nearly means ....

A. Dilated pupils
B. Grinding the teeth
C. Constricted pupils
D. Droopy eyelids
E. Goose bumps

31. Suppose a suspect is under the influence of a combination of Marijuana and Cocaine, but nothing else. Indicate whether each of the following will be true or false:

A.	T F	Pulse rate will be elevated
B.	T F	Pupils will be dilated
C.	T F	Horizontal gaze nystagmus will be present
D.	T F	Eyes will be able to converge
E.	T F	Blood pressure will be elevated

32. How many distinct, validated clues have been established for the Finger-to-Nose test?

A. Eight
B. Six
C. Four
D. Three
E. There are **no validated** clues for this test.

33. The drug ____ is an example of an Anti-Anxiety Tranquilizer. (Circle all that are Anti-Anxiety Tranquilizers.)

A. Librium
B. Valium
C. Amobarbital
D. Chloral Hydrate
E. Xanax

ANSWER KEY FOR THE SELF-TEST

1. Correct answers are A and D.
   Demerol is a Narcotic Analgesic, Thorazine is a CNS Depressant. The combination should **not produce** elevated heart rate (Tachycardia) nor dilated pupils (Mydriasis). But Horizontal Gaze Nystagmus and Lack of Convergence should be present, due to the Depressant, Thorazine. And, lowered blood pressure (Hypotension) should be present as an Additive Effect of both drugs.

2. Correct answer is A, **parasympathetic**.

3. Correct answer is D, **Overlapping**.
   Ketamine is an Analog of PCP, a drug that usually does enhance Horizontal Gaze Nystagmus. Methamphetamine is a CNS Stimulant, a type of drug that doesn't affect nystagmus. This is a case of **action plus no action equals action**, i.e., an Overlapping Effect.

4. Correct answer is C, **Miosis**.

5. Correct answer is A, **Non-Barbiturate**.

6. Correct answer is A, **Synthetic Opiate**.

7. Correct answers are B and C.
   Valium is a CNS Depressant, which of course induces nystagmus. The combination of Cocaine and Xanax gives us a Stimulant and a Depressant (Xanax), which enhances Nystagmus via an Overlapping Effect. None of the other drugs mentioned enhance Nystagmus: Methamphetamine is a Stimulant; LSD is an Hallucinogen; Heroin and Dilaudid are Narcotics; Cannabis, of course, is its own category.

8. Correct answer is A, **CNS Stimulant**.

9. Correct answer is B, **Overlapping**.
   Heroin, a Narcotic, causes constriction of the pupils (Miosis); PCP does not affect pupil size. This is another case of **action plus no action equals action**.

10. Correct answers are B and D.
    Hallucinogens are **sympathomimetic** drugs, and therefore usually elevate the vital signs. But they have no affect on either Nystagmus or Lack of Convergence. And, instead of constricting the pupils, Hallucinogens usually cause pupils to dilate.

11. Correct answers are A, D and E.
ETOH is the chemical name for Ethyl Alcohol, the common beverage form of alcohol that remains the most commonly-abused drug. **MPPP** is a synthetic opiate. **THC** is the primary active ingredient in Cannabis. But "MDMA" (also known as "Ecstasy") and "DOM" (also known as "STP") **are** Hallucinogens.

12. Correct answers are C and D, **Cannabis and Depressants.**

13. Correct answer is D, **Antagonistic**.
A pulse rate of 74 bpm is within the normal range. Percodan, a Narcotic Analgesic, usually lowers the pulse, while Cannabis usually elevates the pulse. The Antagonistic Effect of the two drugs has put this suspect's pulse into a precarious, and probably temporary, state of balance.

14. Correct answer is E, **no validated clues**.
It is important to understand that, when we say there are no validated clues for Romberg, that does **not mean** that the test is invalid. It simply means that we do not have the research data to attest that specific clues on that test are statistically reliable indicators of impairment. Those kinds of research data, at the present time, are available only for Horizontal Gaze Nystagmus, Walk and Turn and One Leg Stand.

15. Correct answer is D, **Additive**.
Ritalin (a Stimulant) and LSD (an Hallucinogen) both usually elevate blood pressure.

16. Correct answer is C, **Synapse**.

17. Correct answer is D, **Droopy Eyelids**.

18. Correct answer is A, **Eight**.
Of the eight **validated** clues for Walk and Turn, two may be observed during the Instructions Stage of the test. They are <u>can't keep balance</u> (which means the suspect breaks away from the heel-to-toe stance) and <u>starts too soon</u>. The other six clues pertain to the Walking Stage of the test. They include:

- o <u>misses heel-to-toe</u>
- o <u>raises arms</u>
- o <u>steps off line</u>
- o <u>stops walking</u>
- o <u>turns improperly</u>
- o <u>takes the wrong number of steps</u>

Although these eight are the only validated clues for Walk and Turn, they aren't the only things that might be observed that could serve as evidence of impairment. All of your observations of the suspect are important.

19. Correct answers are A and E, **Fluorocarbons and Propellants**.
The only proper names for subcategories of Inhalants are Volatile Solvents, Aerosols and Anesthetic Gases.

20. Correct answer is E, **dissociative anesthetic**.

21. Correct answer is E, **Ketamine**.
Ketamine is an analog of PCP, a drug that doesn't affect pupil size. MDMA and Peyote are Hallucinogens, and Biphetamine is a CNS Stimulant; all of those dilate pupils. Methaqualone is a very special CNS Depressant; unlike almost all other Depressants, Methaqualone does affect pupil size (by dilating the pupils).

22. Correct answer is A, **Anesthetic Gases**.
Volatile Solvents and Aerosols usually produce above-normal blood pressure. "Fluorocarbons" and "Propellants" are, of course, not proper names for subcategories of Inhalants.

23. Correct answers are C and D, **Codeine and Thebaine**.
Metopon, Dilaudid and Hycodan are all **opium derivatives**. Dilaudid derives from Morphine, Hycodan from Codeine and Metopon from Thebaine.

24. Correct answer is D, **Methamphetamine**.

25. Correct answer is D, **Failing to Count Out Loud**.
Hopping, Raising the Arms, Putting the Foot Down and Swaying are the four (and only four) **validated** clues of impairment for One Leg Stand.

26. Correct answers are A, B and E: **MDMA, Dexedrine and Desoxyn**.
Dexedrine and Desoxyn are members of the Amphetamine family of CNS Stimulants. MDMA is a "Psychedelic Amphetamine" belonging to the Hallucinogens. CNS Stimulants and Hallucinogens are the two categories that make up the **sympathomimetic** drugs. That means they simulate the responses that the body makes to messages conveyed along the **sympathetic** nerves, i.e., elevated vital signs, dilated pupils, etc. Three other categories, namely the Inhalants, Phencyclidine and Cannabis have **some** sympathomimetic characteristics, but they are not considered to be fully sympathomimetic, and not to the degree of the Stimulants and Hallucinogens. Xanax and Metopon aren't even close to being sympathomimetic. Xanax (a Depressant) and Metopon (a Narcotic) are better described as wholly or partially **parasympathomimetic**.

27. Correct answer is C, **Phencyclidine or an analog.**
PCP, by itself, can account for all of the observations listed. PCP enhances Nystagmus, and lack of convergence; it does not affect pupil size, so the pupils remain within the normal range; it does not affect the reaction of the pupils to light; it does usually elevate all three vital signs.

A Depressant, by itself, could not account for the elevated vitals, and usually would slow the pupils' reaction to light.

If we had a combination of a Depressant and a Stimulant, we'd expect to see the pupils dilated beyond the normal range (due to an Overlapping Effect), and we'd expect to see the reaction of the pupils slowed (due to an Additive Effect). Also, although it is possible that the vital signs could all be elevated with a combination of Depressant and Stimulant, we'd probably expect to see some "moderation" of the vitals due to an Antagonistic
Effect.

If we had a combination of PCP and a Stimulant, we could expect to see pupil dilation and some slowing of the reaction to light, due to Overlapping Effects.

If we had a combination of Depressant and Cannabis, we'd expect to find the temperature within the normal range, since neither of those drugs ordinarily affects temperature.

28. Correct answer is C, **Pulmonary.**

29. Correct answers are:
(A) True: **no nystagmus** will be present
(B) True: we will see miosis, or **constricted pupils**
(C) True: we will find a slow pulse, or **Bradycardia**
(D) True: we won't see a lack of convergence, so the eyes **will be able to converge**
(E) True: we will find a lowered blood pressure, or **Hypotension**
Hycodan is a Narcotic Analgesic, and these observations will be consistent with impairment by Narcotics.

30. Correct answer is B, **Grinding the Teeth**

31. Correct answers are:
(A) True: An Additive Effect will **elevate the pulse** for this combo
(B) True: **pupils will dilate** due to an Overlapping or Additive Effect
(C) False: neither drug enhances Nystagmus, so the Null Effect will also **produce no nystagmus**
(D) False: Marijuana produces Lack of Convergence, so the Overlapping Effect means the **eyes won't converge**
(E) True: An Additive Effect will **elevate the blood pressure**

32. Correct answer is E, **no validated clues**

33. Correct answer are A, B and E: **Librium, Valium** and **Xanax**

DRE DEFENSE CROSS EXAMINATION QUESTIONS

The following are representative of questions the defense may use to challenge the Drug Recognition in court. (The Defendant is identified as Miss Alicia Ann Ace.)

Missing Symptoms/Normals

This line of questions attempts to elicit the fact that the defendant did not have all of the expected signs or symptoms of the drug (s) in question.

Officer, you were taught that bruxism or grinding of the teeth is a sign of CNS Stimulant influence, isn't it? Miss Ace didn't have that sign, did she?

The defense may also focus on those signs or symptoms that were normal, and were therefore, not consistent with the drug in question.

Officer, you learned the normal range of temperature in DRE training, didn't you? And that range is 98.6 plus or minus one degree, isn't it? What was Miss Ace's temperature? (98) 98 is within normal ranges, isn't it? Miss Ace's temperature was normal, wasn't it? Stimulants cause elevated temperature, don't they? Miss Ace's was not elevated, was it?

Alternative Explanations

The defense elicits alternative explanations for the signs and symptoms of the drug (s) in question. These alternative explanations usually deal with medical conditions, stress, a traffic crash, etc.

Officer, an elevated pulse rate can be caused by things other than drugs, can't it? Excitement may cause it? Stress may cause it? Being involved in a traffic crash is stressful, isn't it? And being involved in a traffic crash may cause elevated pulse, right? Being interviewed in the early morning by three police officers is stressful? And that may also cause the pulse to be elevated, can't it?

Defendant's Normals

The defense attempts to emphasize the fact that nor everyone is so-called normal, that normal is subjective.

Officer, you were taught the normal range for pulse in DRE training, weren't you? And you agree that not all people fall in that normal range, don't you? That there are people with pulse rates above normal that aren't on drugs, right? A person's pulse changes over time, doesn't it? You don't know what Miss Ace's normal pulse is, do you? It could be in the normal range, right? But it could be above or below the normal range - normally for her, isn't that so?

Doctor Cop

The line of questioning challenges the credibility of the officer's teachers - that they are police officers, rather than medical professionals.

Officer, the teachers in this DRE school weren't doctors, were they? They weren't nurses either? Toxicologists? Pharmacologists? Paramedics? They were police officer, right?

Just a Cop

This line of questioning challenges the DRE's credentials - that they are "just a cop." This infers that the DRE evaluation is an ersatz medical evaluation that should be undertaken only by a medical professional.

Officer, you're not a doctor, are you? A toxicologist? A pharmacologist? A nurse? A physiologist? You don't have a degree in chemistry, do you? You're a police officer, right?

The Unknown

By causing the officer to state that they don't know how a sign or symptom is caused, the defense attacks the officer's credibility. This line of questioning challenges the officer's expertise, by implying that a real expert would know these things.

Officer, you don't know how Stimulants dilate the pupil, do you? You don't know how alcohol supposedly causes Nystagmus, do you? You don't know how Stimulants supposedly elevate the heart rate, do you?

Guessing Game

This tactic attacks the DRE opinion as a subjective guess, a belief, rather than objective. And guesses can be wrong.

Officer, your opinion in a DRE case is subjective, isn't it? It's a belief on your part? You've made these beliefs in DRE cases in the past, haven't you? A sometimes toxicology didn't find the drug you predicted, isn't that so? And, in fact, sometimes, toxicology didn't find any drug, isn't that so? And so, sometimes your opinion is not correct, right? Sometimes, you guess wrong?

Sgt. Tom Page, LAPD and DDA Linda Condron, Santa Clara County

REVIEW OF THE DRE SCHOOL

SESSION XXIX

CLASSIFYING A SUSPECT (ROLE PLAY)

SESSION XXIX CLASSIFYING A SUSPECT (ROLE PLAY)

Upon successfully completing this session, the participants will be able to:

- Compile a complete, clear and accurate report documenting the conduct and results of a drug evaluation and classification examination.

In this session, you will have opportunities to participate in conducting complete drug evaluation and classification examinations of "arrested suspects". Of course, these "suspects" will not actually be under the influence of any drug. However, at various points during the examination they will instruct you to record certain measurements and observations. In this way they will supply you with information simulating a possible drug impaired subject.

When you complete the examination, you will carefully review all of the data you have recorded and decide whether the "suspect" is simulating a person who is:

(1) under the influence of a drug or drugs; and,

(2) if so, what category or combination of categories of drugs is causing the simulated "impairment".

A word of caution: it is possible that one or more of these "suspects" will be role playing unimpaired subjects. That is, in some cases, the correct conclusion may be that the "suspect" is not under the influence of any drug. In addition, it highly likely that one or more "suspect" will be simulating a person who is under the influence of a combination of drug categories.

At some point during this practice session an instructor will approach you and notify you that you will have to prepare a complete narrative report on your examination of one of the "suspects". The particular "suspect" who will be the subject of your report could be any of the ones you examine. Therefore, it is very important that you take good, comprehensive and detailed notes on each examination.

You will work in this session as a member of a team with two or three fellow students. You and your team mates should "put your heads together" in reaching your conclusions concerning each "suspect"; that is, discuss the "evidence" you have recorded and reach a joint conclusion. You should divide the report writing work among yourselves in some equitable fashion. And, you should each take at least one turn at conducting the complete examination.

This is a very important session in this course. It is here that your instructors will begin to determine whether you have the skills needed to progress to Certification Training, or whether you need more practice before you are ready to move on.

DRUG EVALUATION AND CLASSIFICATION PROGRAM

LOG OF DRUG INFLUENCE EVALUATIONS

Drug Recognition Expert _____ page:_____

IACP Certificate Number _____

CONTROL NUMBER	SUSPECT'S NAME	BOOKING NUMBER	DATE	OPINION OF DRE	TOXICOLOGIC RESULTS	WITNESSES/ COMMENTS

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SESSION XXX

TRANSITION TO CERTIFICATION TRAINING

SESSION XXX TRANSITION TO CERTIFICATION TRAINING

During this session, the participants will:

- Demonstrate his or her mastery of the knowledge and skills the course was intended to help him or her develop.
- Summarize the key topics covered.
- Offer comments and suggestions for improving the course.
- Receive his or her assignments for Certification Training.

This session completes the second phase, of your training as a Candidate Drug Recognition Expert. Among other things, three important events will take place during this session.

(1) You will take a written, multiple choice test, designed to measure your knowledge of drugs, Drug Recognition Examination procedures, and related facts. This knowledge test is one indicator of whether you are ready for Certification Training. You must pass this examination with a score of 80% or better.

(2) You will take a proficiency examination, in which you will demonstrate your skills in conducting the Drug Evaluation and Classification Examination. This skill test is the other indicator of your readiness for the next phase.

(3) You will complete a written -- but anonymous -- critique form, which gives you a chance to express your opinions about this course and the instructors. This information is very important. It will help your department improve the quality of the training, and to maintain the quality at the highest possible level.

A. Preparing For The Knowledge Examination

The following are not the questions that will appear on the knowledge examination. But some of them are quite similar to the examination questions, and all of them address subject matter that will be covered on the test.

If you can answer these questions correctly, you will have no problem in scoring very well on the knowledge examination.

Answers appear on the pages following the questions.

REVIEW QUESTIONS

1. What is the definition of "drug" that is used in this course? (Hint: it is a simple, enforcement oriented rather than medically oriented definition.)

2. Would model airplane glue be considered a "drug" under this definition? Would Alcohol? Would Nicotine?

3. What are the seven categories of drugs (name them all)?

4. To what category of drugs does Cocaine belong? How about Methamphetamine? How about Demerol? How about Psilocybin?

5. What do we mean when we refer to polydrug use?

6. What does it mean to say that two drugs are antagonistic?

7. What is the name of the pulse point that is located in the crease of the wrist, near the base of the thumb?

8. What are the names of the two pressures that are recorded during a blood pressure measurement? Which is the higher pressure?

9. What category or categories of drugs generally will exhibit Horizontal Gaze Nystagmus? What categories will not?

10. To what category of drugs does Codeine belong? How about Secobarbital? How about STP?

11. What category or categories of drugs generally will cause the pupils of the eyes to constrict? What categories generally will cause dilation? What categories generally will not affect pupil size?

12. What are the eight major clues that are considered in assessing the suspect's performance on the Walk and Turn test? What are the four major clues considered in the One Leg Stand test?

13. What category or categories of drugs generally will cause a Lack of Convergence of the eyes? What categories generally will not?

14. What is the formula that expresses the approximate relationship between blood alcohol concentration and Nystagmus onset angle?

15. How many times should you measure the suspect's pulse during the DRE evaluation?

16. What category or categories of drugs generally will cause the body temperature to go down? What categories generally will cause the temperature to go up? What categories generally will not affect body temperature?

17. What are the two subcategories of Narcotic Analgesics?

18. What does the term "Synesthesia" mean?

19. What is Toluene?

20. What category or categories of drugs generally will cause the blood pressure to go up? What categories generally will cause the blood pressure to go down?

21. To what category of drugs does Chloral Hydrate belong? How about Phencyclidine?

22. About how far in front of the suspect's face should the stimulus be held to test for Horizontal Gaze Nystagmus or Vertical Nystagmus?

23. Suppose a subject is under the influence of a combination of Amphetamine and Heroin. Will that subject exhibit Horizontal Gaze Nystagmus? Will the subject's pulse be up, down or normal?

24. What is a Sphygmomanometer? What are its major components, or parts?

25. What category or categories of drugs generally will cause muscle rigidity? What categories generally will not?

ANSWERS TO REVIEW QUESTIONS

1. For purposes of this course, a "drug" is "any substance which, when taken into the human body, can impair the ability of the person to operate a vehicle safely".

   It is not necessary that you be able to quote this definition verbatim. The important thing to remember is that a drug is something that impairs driving ability.

2. Model airplane glue definitely would be considered a drug. So would alcohol. But for our purposes, Nicotine is not considered a drug. It is certainly true that consumption of Nicotine, especially over a long period of time, can cause health problems. But there is no evidence of significant driving impairment from Nicotine.

3. The seven categories are CNS Depressants; CNS Stimulants; Hallucinogens; PCP; Narcotic Analgesics; Inhalants; and, Cannabis.

4. Cocaine is a CNS Stimulant. Methamphetamine also is a CNS Stimulant. Demerol is a Narcotic Analgesic. Psilocybin is an Hallucinogen.

5. Polydrug use means the simultaneous consumption of two or more different drugs. This is very common, especially combinations involving alcohol.

6. Two drugs are antagonistic when they produce some opposite signs and symptoms. An example would be a Narcotic Analgesic and a CNS stimulant. The narcotic lower will cause the pulse rate and blood pressure to go down. The stimulant generally will cause both pulse rate and blood pressure to go up. A person simultaneously using both drugs might exhibit normal pulse rate and blood pressure, as the antagonistic effects of the two drugs mask each other's signs and symptoms.

7. The radial artery pulse point is located in the crease of the wrist near the base of the thumb.

8. The Systolic is the higher pressure. The Diastolic is the lower.

9. CNS Depressants, PCP and (most) Inhalants will exhibit Horizontal Gaze Nystagmus. CNS Stimulants, Hallucinogens, Narcotic Analgesics and Cannabis will not.

10. Codeine is a Narcotic Analgesic. Secobarbital (like all Barbiturates) is a CNS Depressant. STP is an Hallucinogen.

11. Narcotic Analgesics will cause constriction of the pupils. CNS Stimulants and Hallucinogens will cause pupil dilation. Cannabis might induce dilation or may be normal. PCP and (most) Inhalants generally won't affect pupil size. The specific CNS Depressant Methaqualone ("Quaalude") will dilate the pupils; other CNS Depressants won't affect pupil size.

12. For the Walk and Turn test, the eight major clues are:

    (1) Whether the suspect loses balance while the instructions are being given.
    (2) Whether they start walking too soon, i.e., before the instructions are completed.
    (3) Whether they step off the line;
    (4) or fails to touch heel to toe;
    (5) or raises the arms while walking;
    (6) or stops while walking.
    (7) Whether the suspect turns improperly; and,
    (8) the number of steps the suspect takes.

    For the One Leg Stand test, the four major clues are:

    (1) putting the foot down;
    (2) swaying;
    (3) hopping;
    (4) raising the arms.

13. Lack of Convergence generally will be caused by CNS Depressants; PCP; (most) Inhalants; and, Cannabis. Lack of Convergence will not be caused by CNS Stimulants, Hallucinogens or Narcotic Analgesics.

14. Either of the following formulae expresses the approximate, statistical relationship:

    (1) BA = 50 - ONSET ANGLE
    (2) ONSET ANGLE = 50 - BA

    But remember: this is only a gross approximation. It is not an exact relationship. It can never be used as a substitute for a chemical test.

15. Pulse rate should be measured three times.

16. Narcotic Analgesics generally will cause the body temperature to go down. PCP, CNS Stimulants and Hallucinogens generally will cause temperature to go up. CNS Depressants and Cannabis generally will not affect temperature. Different Inhalants may affect temperature in different ways.

17. The two subcategories of Narcotic Analgesics are the Opiates and the Synthetic Opiates. Natural Alkaloids are actually found in, and can be isolated from, the sap of the Opium Poppy. The Opium Derivatives are produced by chemically treating the Natural Alkaloids. The Synthetic Opiates have nothing at all to do with the opium poppy, but are produced entirely artificially.

18. Synesthesia is a mixing of sensory modalities. For example, a person may look at a particular color, and that visual input may cause the person to hear a sound or smell an odor. Synesthesia is an effect generally associated with Hallucinogens.

19. Toluene is the active ingredient in many Inhalants.

20. CNS Depressants and Narcotic Analgesics cause the blood pressure to go down. CNS Stimulants, Hallucinogens, Cannabis and PCP generally cause the blood pressure to go up. With Inhalants, it depends on the particular subcategory: Anesthetic Gases lower blood pressure, while Aerosols and Volatile Solvents raise blood pressure.

21. Chloral Hydrate is a CNS Depressant. Phencyclidine is PCP: together with its analogs, it is in a category by itself.

22. It is good practice to hold the stimulus about 12 to 15 inches in front of the suspect's face.

23. Amphetamine is a CNS Stimulant. Heroin is a Narcotic Analgesic. Neither category will exhibit Horizontal Gaze Nystagmus. Therefore, their combination also will not induce Nystagmus.

    However, the combination of Amphetamine and Heroin may have unpredictable effects on pulse rate. The stimulant, by itself, will tend to cause the pulse to go up, the narcotic will tend to cause the pulse to go down. A person using both drugs may exhibit a pulse that is up/down/normal. And, this can change during the course of the examination.

24. A Sphygmomanometer is a device used for measuring blood pressure. Its major parts are:

    - the compression cuff, which contains an inflatable rubber bladder.
    - the manometer, or pressure gauge.
    - the pressure bulb, which is squeezed to inflate the bladder.
    - the pressure control valve, which regulates inflation and deflation of the bladder.

25. Muscle rigidity generally will be caused by PCP, and possibly will be caused by CNS Stimulants or Hallucinogens. CNS Depressants, Narcotic Analgesics, Inhalants or Cannabis generally will not cause muscle tone to be rigid.

B. Preparing For The Proficiency Examination

On the three pages that immediately follow, you will find a copy of the Proficiency Examination Checklist that your instructors will use to assess your skills in conducting the Drug Evaluation and Classification Procedures. Review the Checklist carefully. It will give you a good idea of what factors will be considered in your examination, i.e., the errors of omission or commission that you need to avoid.

Practice conducting the DRE procedures before submitting yourself to this proficiency examination. Make sure you can administer the procedures flawlessly. It would be a good idea to conduct some after class hours practice with fellow students, so that you can coach each other and help each other progress to Certification Training.

PROFICIENCY EXAMINATION CHECKLIST
(For Use During Certification Training)

Student's Name _____

Date _____ Examiner _____

I. Preliminary Examination

1. Did the student ask all preliminary examination questions?

_____yes _____no

(If No: What questions were deleted? _____

_____

2. Did the student properly estimate pupil size?

_____yes _____no

3. Did the student properly assess the eyes' tracking ability?

_____yes _____no

4. Did the student properly measure pulse rate?

_____yes _____no

II. Eye Examinations

1. Did the student properly administer the horizontal gaze nystagmus test?

_____yes _____no

(If no, explain deficiencies _____

_____

2. Did the student properly administer the vertical nystagmus test?

_____yes _____no

(If no, explain deficiencies _____

_____

3. Did the student properly administer the test for lack of convergence?

_____yes _____no

(If no, explain deficiencies _____

_____

III. Psychophysical Tests

1. Did the student properly administer the Romberg Balance test?

_____yes _____no

(If no, explain deficiencies _____

_____

2. Did the student properly administer the Walk and Turn test?

_____yes _____no

(If no, explain deficiencies _____

_____

3. Did the student properly administer the One Leg Stand test?

_____yes _____no

(If no, explain deficiencies _____

_____

4. Did the student properly administer the Finger To Nose test?

_____yes _____no

(If no, explain deficiencies _____

_____

V. Vital Signs Examinations

1. Did the student properly measure blood pressure?

_____yes _____no

(If no, explain deficiencies _____

_____

2. Did the student properly measure temperature?

_____yes _____no

(If no, explain deficiencies _____

_____

3. Did the student properly measure pulse?

_____yes _____no

(If no, explain deficiencies _____

_____

IV. Dark Room Examinations

1. Did the student properly control the pen light for the three checks of pupil size?

_____ yes _____no

(If no, explain deficiencies _____

_____

2. Did the student accurately estimate pupil size?

_____yes _____no

3. Did the student properly check the nasal area?

_____yes _____no

4. Did the student properly check the oral cavity?

_____yes _____no

VI. Examinations of Muscle Tone

1. Did the student adequately inspect for muscle tone?

_____yes _____no

(If no, explain deficiencies _____

_____

V. Examinations of Injection Sites and Third Pulse

1. Did the student adequately inspect for injection sites?

_____yes _____no

(If no, explain deficiencies _____

_____

2. Did the student properly measure pulse?

_____yes _____no

(If no, explain deficiencies _____

_____

VII. Evaluator's Opinion of Student's Proficiency

(Offer appropriate, specific comments concerning the student's progress)

_____

_____

_____

_____

_____

C. The Anonymous Written Critique

The Student's Critique Form appears on the following pages. You will have time, during the final session of the course, to complete this form and offer any comments that you think are appropriate. It will be especially helpful to your department to hear your suggestions for improving this training.

Please look over the critique form prior to the final session, to start organizing your thoughts and feelings about the instruction you have received.

D. Maintaining The Log of Drug Influence Evaluations

Beginning with your first night of Certification Training, and **continuing throughout your career as a DRE**, you will maintain a log of all persons you examine for possible drug impairment. The log is your personal record of your work as a DRE, and it will have a major impact on three things that should be of cable importance to you:

(1) Whether or not your instructors can recommend you for your initial certification as a DRE.

(2) Whether or not you qualify for re-certification, when your initial certification expires.

(3) Whether or not the trial judge in a particular drug impairment case qualifies you as an expert, and allows you to render your opinion as evidence.

Under the National Program Standards established by NHTSA and IACP, your instructors cannot endorse you for certification by IACP unless your Log of Drug Influence Evaluations is up-to-date, complete and accurate. The next-to-last line on the Certification Progress Log that you received at the beginning of the PRE-School, and that you handed back in at the start of this School, is titled "Rolling" Log Approved. ("Rolling" Log is the informal name of the Log of Drug Influence Evaluations.) If a valid instructor's signature does not appear on that line, IACP cannot grant you a certificate. Once you do receive a certificate, it usually will be valid for two years. At that time, to qualify for re-certification, you must submit a copy of the entries in your "Rolling" Log since you were certified, as proof that you have maintained your proficiency. And, each time you go to court as a DRE, you must bring your "Rolling" Log along, to help establish your credentials as an expert. Remember that your state may have more stringent requirements.

What is the "Rolling" Log? Five copies of it appear on the final pages of this manual. Remove one of those copies now, so that you can refer to it as you read the instructions for entering information on it.

At the top of the Log, there is a space in which you will print your name ("Drug Recognition Expert"); another space for the page number (obviously, the first page will be #1, the second #2, and so on; as you continue your career as a DRE, the page number will grow very large); and, a third space in which to print your IACP Certificate Number. Until you have completed your certification training, you will print the word "STUDENT" in that space.

Each subsequent line of the log corresponds to a suspect examination in which you participated. In the "Control Number" box, you will print the number that you assign to the examination; i.e., if this is the seventh examination in which you participated in 1993, the control number would be 93-7. If you were the actual examining DRE for this particular case, you need not print anything other than the control number in that box. But if you served only as the recorder, you must print "RECORDER" in the box, immediately below the control number. Likewise, if you were participating only as a witness, you will print "WITNESS" in the box.

In the box to the right of the control number, you will print the suspect's full name (last, first, middle initial); further to the right, enter the booking number. The booking number is whatever control number the responsible law enforcement agency assigned to track this particular arrestee. In some instances, there may be no booking number. For example, you may have an opportunity to examine a person who is receiving drugs in a clinical setting, and no arrest is involved. Or, the person you are examining might be someone already incarcerated in the jail who agrees to submit to the examination with the understanding that its outcome will not affect their particular case; in that instance, the booking number would not be relevant. In any case where there is no relevant booking number, simply print "N/A" in the box.

In the next box, print the date on which the examination began; in other words, an examination that starts one minute before midnight on March 17th is recorded on that date, not on the 18th, despite the fact that almost all of the work took place on the later day.

The next box, of course, is very important. Record your opinion in complete detail. If you conclude that the suspect is not impaired, that is what you will record. If you conclude that they are under the influence of alcohol only, that is what you must record. If you believe the suspect is suffering from an injury or illness, print "Medical Rule Out" in the box. Otherwise, print the category or combination of categories of drugs that you believe is causing the impairment. If the suspect has a positive BAC, don't forget to include "alcohol" as one of those.

In the "Toxicologic Results" box, you will print the outcome of all chemical tests performed on the suspect. Obviously, days or weeks will usually pass by before you have the results of blood or urine tests, so you will routinely have to "update" your log. Don't forget to include the BAC obtained from the breath test in this space. And, if the suspect refused to submit to the blood or urine test, indicate that.

In the final box, print the names of persons who witnessed the examination, and include any other appropriate comments. Use the reverse side of the page, or add continuation sheets, if longer comments are appropriate.

Experienced DREs usually maintain two copies of their "Rolling" Logs, to ensure preservation of this most important record.

E. Certification Requirements

At a minimum you will need to conduct 12 DRE evaluations with an instructor. You need to be the evaluator on at least 6 of these evaluations, and at least 75% of your opinions must be collaborated by toxicological results.

If no instructor is available you may still be able to complete an evaluation. Check with your agency to determine what polices pertain to this situation. The ultimate goal of this program is to remove the drugged driver from the roadway.

Remember, you must have a DRE Instructor present when you conduct an evaluation to receive credit for certification.

Course Location _____ Date _____

DRE SCHOOL
STUDENT'S CRITIQUE FORM

1. Rating The Various Segments Of The School

On a scale from 1 (="low") to 5 (="high"), please indicate how important each major topic or activity of this school was for you personally.

Drugs In Society and In Vehicle Operation _____

Development and Effectiveness of the DEC Program _____

Overview of the Drug Recognition Expert Procedures _____

Physician's Desk Reference _____

Eye Examinations: Explanation and Demonstrations by Instructors _____

Eye Examinations: Hands-on Practice by Students _____

Vital Signs: Explanations and Demonstrations by Instructors _____

Vital Signs: Hands-on Practice by Students _____

Physiology and Drugs _____

The Alcohol Workshop _____

The **"Practice: Test Interpretation"** Sessions _____

The Sessions on the Individual Drug Categories _____

Overview of Signs and Symptoms _____

Drug Combinations _____

Resume Preparation and Maintenance _____

Preparing the Narrative Report _____

Case Preparation and Testimony _____

The Mid-Course Review Session _____

The Role Play Session (Instructors "simulating" drug impaired subjects) _____

The Quizzes _____

2. Suggestions For Improving The School

If you absolutely had to cut four hours out of this school, what topics or sessions would you reduce or eliminate?

_____

_____

If you could add four hours to the School, how would you recommend that the additional time be spent?

_____

_____

3. Specific Features Of The School

Please circle the appropriate word to indicate your agreement or disagreement with each of the following statements.

1. The DRE School is at least one day too long.

   Agree Disagree Not Sure

2. We spent too much time in hands-on practice.

   Agree Disagree Not Sure

3. Now that I've had the DRE School, I believe that the PRE-School really wasn't needed.

   Agree Disagree Not Sure

4. Some of the instructors didn't seem to be as well prepared as they should have been.

   Agree Disagree Not Sure

5. I do not feel confident about my ability to estimate nystagmus onset angle accurately.

   Agree Disagree Not Sure

6. This School was much harder than I thought it would be.

   Agree Disagree Not Sure

7. We should have spent more time in hands-on practice.

Agree Disagree Not Sure

8. The instructors seemed to know their material, but some of them didn't get it across very well.

Agree Disagree Not Sure

9. We spent too much time on the details of each drug category.

Agree Disagree Not Sure

10. I am not confident that I can measure blood pressure accurately.

Agree Disagree Not Sure

11. I would have to say that the final examination was hard, but fair.

Agree Disagree Not Sure

12. Some of the instructors "threw the bull" a bit too much.

Agree Disagree Not Sure

13. Now that I've had the DRE School, I am more convinced than ever that the PRE-School is very important.

Agree Disagree Not Sure

14. I am still very confused about drug combinations and their effects.

Agree Disagree Not Sure

15. I am not confident that I can estimate pupil size accurately.

Agree Disagree Not Sure

16. I would have to say that this School wasn't quite as hard as I thought it would be.

Agree Disagree Not Sure

17. There were too many quizzes in this School.

Agree Disagree Not Sure

18. The final examination was much harder than it should have been.

Agree Disagree Not Sure

19. We did not receive enough information about the effects, signs and symptoms of the various drug categories.

Agree Disagree Not Sure

20. I am confident that I will succeed in the Certification Stage of my training.

Agree Disagree Not Sure

21. The DRE School is at least one day too short.

Agree Disagree Not Sure

4. Rating of Instructors

On a scale from 1 (="poor") to 5 (="excellent"), please indicate your overall assessment of each instructor.

Instructor	Rating
Instructor	Rating
Instructor	Rating
Instructor	Rating
Instructor	Rating
Instructor	Rating

Instructor	Rating
Instructor	Rating
Instructor	Rating
Instructor	Rating
Instructor	Rating
Instructor	Rating
Instructor	Rating
Instructor	Rating
Instructor	Rating
Instructor	Rating
Instructor	Rating
Instructor	Rating

5. Overall Rating Of The School

On a scale from 1 (="poor") to 5 (="excellent"), please indicate your overall assessment of the quality of this School:

1 2 3 4 5

Please offer any final comments or suggestions that you feel are appropriate.