SESSION XVI

DISSOCIATIVE ANESTHETICS
SESSION XVI  DISSOCIATIVE ANESTHETICS

Upon successfully completing this session the student will be able to:

- Explain a brief history of Dissociative Anesthetics and specifically PCP and its analogs.
- Identify common drug names and terms associated with this drug category.
- Identify common methods of administration for this drug category.
- Explain the symptoms, observable signs and other effects associated with this drug category.
- Describe the typical time parameters, i.e. onset and duration of effects, associated with this drug category.
- List the clues that are likely to emerge when the drug influence evaluation is conducted for a person under the influence of this drug category.
- Correctly answer the "topics for study" questions at the end of this session.
A. Overview of the Category

Dissociative Anesthetics include drugs that inhibit pain by cutting off or dissociating the brain's perception of pain. The drugs within this category normally will induce a state of sedation, immobility, amnesia, and marked analgesia.

The term Dissociative Anesthesia is derived from the strong feeling of dissociation from the environment that is experienced by the user.

Phencyclidine (PCP) was the first drug used for this purpose, but the frequent occurrence of unpleasant hallucinations and psychological problems soon led to its discontinued legal use. Ketamine and Ketalar, two analogs of PCP, also are considered Dissociative Anesthetics.

Phencyclidine (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 and its analogs are sometimes referred to as "psychedelic anesthetics" because of the bizarre and varying effects they can cause in the user. In some respects, PCP and its analogs can be similar to a CNS Depressant, and in some respects, they act like a CNS Stimulant. In other respects, they act like an hallucinogen, and they are frequently classed as an Hallucinogen in medical texts and scientific/research reports.

The drug 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 1967. In 1968 it was re-patented as a veterinary anesthetic under the trade name Sernylan.

There are numerous slightly different drugs that are similar to PCP. 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.

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 below lists some of the more common "street names" for PCP.

<table>
<thead>
<tr>
<th>WATER</th>
<th>ACE</th>
<th>CRYSTAL</th>
<th>MONKEY DUST</th>
<th>ELEPHANT TRANQUILIZER</th>
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<tbody>
<tr>
<td>AMOEBA</td>
<td>KRYSTAL</td>
<td>GREEN</td>
<td>GREEN LEAVES</td>
<td>HORSE TRANQUILIZER</td>
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<tr>
<td>JET FUEL</td>
<td>CRACK JOINT</td>
<td>GREEN LEAVES</td>
<td>KOOLS</td>
<td>ANIMAL TRANQUILIZER</td>
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<tr>
<td>JUICE</td>
<td>EMBALMING FLUID</td>
<td>SUPER KOOLS</td>
<td>KIOS</td>
<td>SUPER WEED</td>
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<tr>
<td>DUST</td>
<td>TIC TAC</td>
<td>SUPER GRASS</td>
<td>SHERMS</td>
<td>PEACE WEED</td>
</tr>
<tr>
<td>ANGEL DUST</td>
<td>PEACE</td>
<td>SUPER GRASS</td>
<td>SHERMS</td>
<td>PEACE WEED</td>
</tr>
<tr>
<td>DEVIL DUST</td>
<td>PAZ</td>
<td>SUPER GRASS</td>
<td>SHERMS</td>
<td>PEACE WEED</td>
</tr>
<tr>
<td>MAGIC DUST</td>
<td>PEACE PILL</td>
<td>KILLER WEED LOVELY</td>
<td>SHERMS</td>
<td>PEACE WEED</td>
</tr>
</tbody>
</table>

Methods of Ingestion

Many users ingest PCP by smoking. These drugs 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 can then be smoked in a pipe or cigarette. PCP smoke is very hot and can irritate the mouth and tongue, so 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".

The powdered forms of PCP can also be snorted or taken orally. Liquid PCP and its analogs can be injected, or administered directly to the eyes, via an eyedropper. These drugs can also be ingested transdermally, i.e. through the skin.

Ketamine

A frequently abused analog of PCP is Ketamine. It is chemically related to PCP and is used to produce rapid general anesthesia for medical procedures of short duration, or as an initial surgical anesthetic. It is available in liquid form for human use (Ketalar), and for veterinary use (Ketaved, Ketaset, Vetamine, and Vetalar). Liquid Ketamine may vary in color from clear to yellow. Ketamine in powdered form is normally a white, crystalline powder. It is commercially available as a veterinary anesthetic. It is a Schedule III controlled substance in the U.S.


Methods of Ingestion

Many users ingest Ketamine by smoking. This drug can also be applied in either liquid or powder form to a variety of vegetable or leafy substances, similar to PCP.
The Ketamine then can be smoked in a pipe or cigarette. Ketamine smoke is also very hot and can irritate the mouth and tongue, so many smokers will try and cool the smoke.

The powdered form of Ketamine can also be snorted or taken orally. Liquid Ketamine can be injected, or administered directly to the eyes, via an eyedropper. Like PCP and other analogs, these drugs can be ingested transdermally.

**Dextromethorphan (DXM)**

Dextromethorphan, or DXM, is a synthetically produced substance that is chemically related to codeine, although it is not an opiate. DXM is an ingredient found in numerous over-the-counter cough and cold remedies. When ingested at recommended dosage levels, DXM generally is a safe and highly effective cough suppressant; however, when ingested in larger amounts, DXM produces negative physiological effects. Over-the-counter products that contain DXM often contain other ingredients such as acetaminophen, chlorpheniramine, and guaifenesin.

In some respects, DXM’s effects can be similar to a CNS Depressant, CNS Stimulant, and Hallucinogens. It has been classified as a CNS Depressant in some medical texts and scientific/research reports.

Dextromethorphan is commonly known as “DXM,” “Triple C (CCC),” “Robo,” “Robo-tripping,”“Skittles,” “Robo-dosing,” “Robo-fire,” “Rojo,” “Candy,” “Velvet,”and “DM.”

**Methods of Ingestion**

Most DXM abusers ingest the drug orally, although some snort the pure powdered form of the drug. Some abusers ingest 250 to 1,500 milligrams in a single dosage, far more than the recommended therapeutic doses of 10 to 20 milligrams every four hours or 30 milligrams every 6 to 8 hours.

**B. Possible Effects of Dissociative Anesthetics**

Dissociative Anesthetics produce impairment and other observable effects on the human mind and body that are a combination of effects produced by CNS Depressants, CNS Stimulants and Hallucinogens.

PCP is classified as a Dissociative Anesthetic because 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 they are dead, and that their heads are floating away.

Among these drugs least desirable side effects are:

- Delirium
- Agitation, anxiety
- Rigid muscle tone
- Elevated blood pressure
Convulsions
Difficulty in speech
Hallucinations
Violent reactions

Some evidence of long term memory disorders and psychological disturbances resembling schizophrenia has also been linked to PCP.

The following are extreme, but not unique, examples:

- One young man methodically pulled out his own teeth, with a pair of pliers.
- A second suffered hallucinations of unbelievably grotesque monsters, and gouged out his own eyes to avoid seeing the monsters.
- Another drank rat poison, hoping to kill the rats that he imagined were infesting his body.
- 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)

**Dextromethorphan (DXM)**

Abusers of Dextromethorphan will also ingest various amounts of DXM depending on their body weight and the effect or plateau that they are attempting to achieve. The levels of DXM plateaus include:

- **First Plateau:** Mild inebriation.
- **Second Plateau:** An effect similar to alcohol intoxication and, occasionally, mild hallucinations. The abuser’s speech can become slurred, and short-term memory may be temporarily impaired.
- **Third Plateau:** An altered state of consciousness. The abuser’s senses, particularly vision, can become impaired.
- **Fourth Plateau:** Mind and body dissociation or an “out-of-body” experience. The abuser can lose some or all contact with his or her senses. The effects at this plateau are comparable to PCP and its analogs.

Other effects resulting from acute dosages of DXM (between 250 and 1,500 milligrams) include blurred vision, body itching, rash, sweating, fever, hypertension, shallow respiration, diarrhea, toxic psychosis, and an increased heart rate, blood pressure and body temperature.
C. Onset and Duration of Effects

PCP

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. If taken orally, PCP’s effects are generally felt in 30-60 minutes. The effects generally last 4-6 hours, but they can last somewhat longer.

Ketamine

The onset of effects of Ketamine is within seconds if smoked, 1-5 minutes if injected, 5-10 minutes if snorted and 15-20 minutes if orally administered. Effects generally last 30-45 minutes if injected, 45-60 minutes if snorted, and 1-2 hours following oral ingestion. It is often re-administered due to its relatively short duration of action.

Dextromethorphan (DXM)

Dextromethorphan is rapidly absorbed from the gastrointestinal tract and peak plasma concentrations are reached in approximately 2.5 hours. It is widely distributed, and is rapidly and extensively metabolized by the liver. Dextromethorphan is demethylated to dextrophan, an active metabolite, and to 3-methoxymorphinan and 3-hydroxymorphinan. It exerts its antitussive effects within 15-30 minutes of oral administration. The duration of action is approximately 3-6 hours with conventional dosage forms.

D. Signs and Symptoms of Dissociative Anesthetic Overdose

In addition to the bizarre, violent, and self-destructive behavior discussed previously, persons severely intoxicated by PCP or DXM may exhibit definite and extreme symptoms signifying a medically dangerous condition. Some examples are:

- A deep coma, lasting for up to 12 hours.
- Seizures and convulsions.
- Respiratory depression.
- Possible cardiac problems. Lower doses of PCP may trigger a heart attack if the user had some pre-existing condition, predisposing them to possible cardiac problems.
- Eyes generally open with a blank stare.

There is also some evidence that prolonged use of PCP and DXM can lead to psychosis, which can be permanent.
E. Expected Results of the Evaluation

When a DRE concludes that a subject is impaired by a Dissociative Anesthetic, such as Phencyclidine or DXM, his or her report should state that "...the subject is under the influence of a Dissociative Anesthetic."

When a person under the influence of Dissociative Anesthetics is evaluated by a DRE, the following results can generally be expected:

- **Horizontal Gaze Nystagmus** - present, with a very early angle of onset.
- **Vertical Gaze Nystagmus** - present
- **Lack of Convergence** - present
- **Pupil size** - normal
- **Reaction to light** - normal
- **Pulse rate** - up
- **Blood pressure** - up
- **Temperature** - 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.
- **Muscle tone** - rigid
- **Injection sites** usually won't be found, although some PCP users do inject the drug.

**General Indicators:**

- Blank stare
- Confused
- Chemical odor (of Ether, used in preparation of PCP)
- Cyclic behavior (With PCP)
- Difficulty with speech
- Disorientated
- Early HGN onset
- Hallucinations
- Incomplete verbal responses
- Increased pain threshold (PCP)
- Loss of memory
- "Moon Walking" (PCP)
- Non-communicative
- Perspiring (PCP)
- Possibly violent (PCP)
- Sensory distortions
- Slow, slurred speech

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 toxicological report comes back for a subject the DRE believed was impaired by Phencyclidine. It is possible that the subject had used an analog that the particular lab couldn't detect.
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?
**DRUG INFLUENCE EVALUATION**

**Evaluator**
Gerry Britz, Yarmouth P.D.

**Date of Test**
09/18/07

**Session**
XVI-1

**Observed Person**
Robert H.

**Chain of Command**
Dr. Jack Richman

**Arresting Officer**
Sgt. Deb Batista, Middleboro P.D.

**Case #**
388661

**Location**
Middleboro P.D.

**Observations**

<table>
<thead>
<tr>
<th>Time</th>
<th>Observations</th>
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</thead>
<tbody>
<tr>
<td>8 PM/10 PM</td>
<td>Drowsy, slow and low speech</td>
</tr>
</tbody>
</table>

**Anticipation**
Passive, cooperative

**Coordination**
Poor, staggering

**Pupil Size**
Equal

**Convergence**
Able to follow stimulus

**Vertical Nystagmus**
Yes

**Coordination Test**
One Leg Stand

**Footwear**
Boots

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**Draw Lines to Spots Touched**

<table>
<thead>
<tr>
<th>Spot</th>
<th>Left Eye</th>
<th>Right Eye</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.0</td>
<td>4.0</td>
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<tr>
<td>2</td>
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<td>6.0</td>
</tr>
<tr>
<td>3</td>
<td>3.5</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**Pupil Size**
Room light: 2.5 - 5.0
Darkness: 5.0 - 8.5
Direct: 3.0 - 4.5

**Blood Pressure**
146/100

**Temperature**
99.8

**Date of Test**
09/18/07

**Time of Test**
2100

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**Evaluation Details**

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<tr>
<td>Reviewed/approved by/date</td>
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**Opinion of Evaluator**
CNS Stimulant

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**Notes**
Nothing observed
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Ross, Robert H.

1. LOCATION: The evaluation was conducted at the Middleboro Police Department.

2. WITNESSES: Arresting officer; Sergeant Deb Batista of the Middleboro Police Department and Dr. Jack Richman of New England College of Optometry.

3. BREATH ALCOHOL TEST: Ross’ breath test was 0.00%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was contacted and advised to contact Sergeant Batista at the Middleboro Police Department for a drug evaluation. Sergeant Batista advised that she had observed the suspect driving on N. Main Street at approximately 10 mph drifting within his lane and nearly hitting other vehicles. When stopped, the suspect appeared dazed and did not know where he was or where he was going. He had a blank stare and appeared very confused. He was arrested for DUI after performing poorly on the SFST’s.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the interview room at M.P.D. He appeared dazed and disoriented, had a fixed stare and responded very slowly to questions. He was perspiring heavily and had rambling speech.

6. MEDICAL PROBLEMS AND TREATMENT: None noted or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect swayed approximately 3” in a circular motion and estimated 30 seconds in 45 seconds. Walk & Turn: Suspect started walking immediately and lost his balance during the instructions, stepped off the line twice, stopped walking twice, used his arms for balance and missed heel to toe on all steps. One Leg Stand: Suspect was unable to complete the test on either foot. Finger to Nose: Suspect missed the tip of his nose on four of the six attempts. His arm movements were very rigid.

8. CLINICAL INDICATORS: Suspect exhibited an immediate onset of HGN. Vertical Gaze Nystagmus and Lack of Convergence were also present. The suspect’s pulse, blood pressure and temperature were above the normal ranges.

9. SIGNS OF INGESTION: There was a strong chemical odor on the suspect’s breath.

10. SUSPECT’S STATEMENTS: The suspect stated that he did not use any drugs.

11. DRE’S OPINION: In my opinion Ross is under the influence of a Dissociative Anesthetic and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a blood sample.

13. MISCELLANEOUS:

Rev. 03/08
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Albright, Jeremy J.

1. LOCATION: The evaluation was conducted at the 4th Avenue substation of the Anchorage Police Department.

2. WITNESSES: Officer Chris Ritala of A.P.D. witnessed the evaluation.

3. BREATH ALCOHOL TEST: Albright’s breath test was 0.00%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was contacted and requested to contact Officer Pollock regarding a drug evaluation. Officer Pollock advised he had stopped the suspect for speeding on Minnesota Ave. The suspect had bloodshot eyes and slurred speech. He appeared impaired, however, there was no odor of alcoholic beverage on his breath. He had six clues of HGN and performed poorly on the SFST’s. He admitted taking some “Dex” the night before.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the interview room at the substation. His face was flushed and his speech slurred. His movements were slow and deliberate. He seemed disoriented and confused.

6. MEDICAL PROBLEMS AND TREATMENT: None noted or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect swayed approximately 2” side to side and approximately 2” front to back. Walk & Turn: Suspect lost his balance during the instructions, turned by shuffling his feet and missed heel to toe twice on the second nine steps. One Leg Stand: Suspect had leg tremors, swayed while balancing and used his arms for balance. Finger to Nose: Suspect missed the tip of his nose on four of the six attempts. He used the pad of his finger on each attempt.

8. CLINICAL INDICATORS: HGN was present with an immediate onset. Vertical Gaze Nystagmus and Lack of Convergence were also present. His pulse, blood pressure and temperature were above the normal ranges.

9. SIGNS OF INGESTION: None were evident.

10. SUSPECT’S STATEMENTS: Suspect admitted taking about 24 Coricidin pills.

11. DRE’S OPINION: In my opinion Albright is under the influence of a Dissociative Anesthetic and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a blood sample.

13. MISCELLANEOUS: The suspect stated he had been transported to the hospital several months ago when he overdosed by taking 32 Coricidin pills.

Rev. 03/08
**DRUG INFLUENCE EVALUATION**

**Evaluator:** Jim Pullen, Westminster P.D.
**Rolling Log #:** 010766 07-56
**Session XVII #3**

**Officer:** Jeff Schuster, W.P.D.
**Rolling Log #:** 010766 07-56
**Case #:** 55170-04

**Date of Birth:** 8/2/64
**Rate:** F
**Chemical Test:** Urine Blood

**Date Examined / Time / Location:** 5/2/07 2315 Westminster PD

**Warning Given:** Yes
**Supplied by:** Officer Schuster

**What have you eaten today?** None
**What have you been drinking?** Nothing
**Time of last drink?** N/A

**Time now / Actual:** 11 PM / 11:15 PM
**When did you last sleep?** Last night 6-7 hrs.
**Are you sick or injured?** Yes No
**Are you diabetic or epileptic?** Yes No

**Do you take insulin?** No
**Do you have any physical defects?** No

**Do you take any medication or drugs?** Passive, non-responsive
**Coordination:** Poor, slow, staggering
**Sponsor:** Slow, confused, thick
**Breath Odor:** Normal
**Face:** Sweaty, flushed
**Corrective Lenses:** None
**Even:** Bloodshot Conjunctivae
**Dilatation:** None
**Trembling:** None Equal Unequal
**Pupil Size:** Equal
**Unusual (explain):**

**Pulse and time:**
1. 106 / 2325
2. 104 / 2336
3. 104 / 2345

**Romberg Balance**

<table>
<thead>
<tr>
<th>3'</th>
<th>3'</th>
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<th>3'</th>
<th>3'</th>
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<tr>
<td>M</td>
<td>M</td>
<td>M</td>
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**Walk and Turn Test**

<table>
<thead>
<tr>
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<th>2'</th>
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<tbody>
<tr>
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<td>X</td>
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**Convergence**

**INTERNAL CLOCK**

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<tr>
<th>Room light</th>
<th>Darkness</th>
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</thead>
<tbody>
<tr>
<td>2.5 - 5.0</td>
<td>5.0 - 8.5</td>
<td>2.0 - 4.5</td>
</tr>
<tr>
<td>Left Eye 1</td>
<td>6.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Right Eye 1</td>
<td>6.5</td>
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</table>

**REBOUND DILATION**

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</tr>
<tr>
<td>Right Eye</td>
<td>6.5</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**Type of footwear:** Sandals

**Nasal area:** Clear

**Oral cavity:** Clear

**Blood pressure:** 158/104
**Temperature:** 100.4

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**Opinion of Evaluator:**
- Role Out
- Alcohol
- CNS Stimulation
- Motor
- CNS Depressant
- Hallucinogen
- Narcotic Analgesis
- Inhalant
- Cannabis

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**Officer's Signature:**

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**Revised/Approved by / Date:**
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: George, Debra A.

1. LOCATION: The evaluation was conducted at the Westminster Police Department.

2. WITNESSES: Arresting officer; Jeff Schuster of W.P.D. witnessed the evaluation.

3. BREATH ALCOHOL TEST: George's breath test was 0.00%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was contacted and requested to contact Officer Schuster at W.P.D. for a drug evaluation. Officer Schuster stated he had stopped the suspect after observing her nearly hit several parked cars. Her speech was slow and slurred. She was very confused and not sure of her surroundings. Her coordination was very poor and she nearly fell attempting the SFST's.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the Processing Room at W.P.D. She appeared dazed and disoriented. She had a fixed stare and was responding slowly to Officer Schuster's questions. She was unstable on her feet and several times used the wall to steady herself. Her movements were slow and deliberate.

6. MEDICAL PROBLEMS AND TREATMENT: None noted or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect swayed approximately 3” in a circular motion and estimated 30 seconds in 42 seconds. Walk & Turn: Suspect missed heel to toe numerous times and nearly fell twice. She repeatedly used her arms for balance and took a wrong number of steps. One Leg Stand: Suspect lost her balance using the wall to steady herself and the test had to be stopped. Finger to Nose: Suspect missed the tip of her nose on five of the six attempts.

8. CLINICAL INDICATORS: Suspect had six clues of Nystagmus with an immediate onset. Vertical Gaze Nystagmus was also present. She was unable to convergence her eyes and looked straight ahead. Her pulse, blood pressure and temperature were above the normal ranges.

9. SIGNS OF INGESTION: None were evident.

10. SUSPECT’S STATEMENTS: The suspect did not respond when questioned about drug. However, she did make several “K-Hole” references.

11. DRE’S OPINION: In my opinion George is under the influence of a Dissociative Anesthetic and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a blood sample.

13. MISCELLANEOUS:
SESSION XVII

NARCOTIC ANALGESICS
SESSION XVII  NARCOTIC ANALGESICS

Upon successfully completing this session the student 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.
- 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.
- List the clues that are likely to emerge when the drug influence evaluation is conducted for a person under the influence of this drug category.
- Describe the procedures for examining and determining the ages of injection sites.
- Correctly answer the "topics for study" questions at the end of the session.
A. Overview of Narcotic Analgesics

There are two subcategories of Narcotic Analgesics. The first subcategory consists of the Opiates. The second subcategory is 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. Heroína 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 signs and symptoms of chronic morphine withdrawal. (This means that the various Narcotic Analgesics can be substituted for each other to relieve withdrawal symptoms.)

1. The chart on the next page lists 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 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.

Hydrocodone is derived from Codeine but is more closely related to Morphine in its pharmacological profile. It is most frequently prescribed in combination with acetaminophen (i.e. Vicodin, Lortab) but is also marketed in products with aspirin (Lortab ASA), ibuprofen (Vicoprofen) and antihistamines (Hycomine). Hydrocodone products are the most frequently prescribed pharmaceutical opiates in the United States with over 111 million prescriptions dispensed in 2003. Hycodan is another trade name of Hydrocodone.

Numorphan is a powerful semi-synthetic 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. NOTE: The technical, or generic, name for Numorphan is Oxymorphone.

Oxycodone is a semi-synthetic narcotic produced by chemically treating Thebaine and prescribed for chronic or long-lasting pain. Oxycodone is the active ingredient of OxyContin and is also the main ingredient for Percodan and Tylox. OxyContin contains between 10 and 160 milligrams of Oxycodone in a timed release tablet. Other pain killers, such as Tylox contain 5 milligrams of Oxycodone. OxyContin has quickly become one of the major drugs of abuse. It is referred to as “Oxy”, “OC” and “killer” on the street. Abusers of the drug either crush the tablet for ingestion, snorting it or dilute it in water and inject it. Crushing or diluting the tablet disarms the timed-release action and causes a quick, powerful high. It is somewhat less addictive than morphine, but more addictive than codeine.

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.
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.

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 used to relieve mild to moderate pain. Technical name is Propoxyphene. It is fairly commonly prescribed and has been recently linked to numerous overdoses. Another commonly used drug that contain Propoxyphene is Darvocet.

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 continue 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, a heroin addict who has injected his or her usual dose may be able to operate a car properly and satisfactorily perform the Standardized 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 state of deep relaxation, 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.

Other effects may include:

- slowed reflexes
- slow and raspy speech
- slow, deliberate movement
- inability to concentrate
- slow breathing
- skin cool to touch
- possible vomiting
- itching of the face, arms, or body

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.

The physical effects usually will be observable for up to 4-6 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 active influence of the drug.

As the effects of the Heroin diminish, withdrawal symptoms begin. The addicted user 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 subject sweats and has goose bumps on the skin. Reflexes become hyperactive. The subject yawns, may vomit, their nose runs 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 goose bumps (piloerection), slight tremors, loss of appetite and dilation of the pupils.

Approximately 24-36 hours since the last "fix", the subject 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 subject usually experiences muscular and abdominal cramps, elevated temperature and severe tremors and twitching. This twitching, especially of the legs, is referred to as the expression "kicking the habit". The subject 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 subject's breathing becomes slow and shallow, and death can occur from severe respiratory depression. The danger of death from an overdose of Narcotic Analgesic is heightened by the fact that the addicted user may not know the strength of the drug that he or she is taking. The subject's skin becomes clammy, and the subject may experience convulsions, and slip into a coma. The subject's lips may turn blue, and the body may become pale or blue. The subject may have extremely constricted pupils (unless there is brain damage in which pupils may be dilated).

E. Expected Results of the Evaluation

When a person under the influence of a Narcotic Analgesic is evaluated by a DRE, the following results can generally be expected:

Horizontal Gaze Nystagmus - none
Vertical Gaze Nystagmus - none
Lack of Convergence - none
Pupil size - constricted
Reaction to light - little to none visible
Pulse rate - down

Blood pressure - lowered

Temperature - down

Muscle tone - flaccid

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:

- constricted pupils
- depressed reflexes
- drowsiness
- droopy eyelids (ptosis)
- dry mouth
- euphoria
- facial itching
- nausea
- “on the nod”
- puncture marks
- slowed reflexes
- slow, low, raspy speech
- slowed breathing

F. Injection Site Examination

Examination of injection sites can reveal many clues about a subject’s drug habit. The sites can reveal if the subject 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 subject's equipment is commonly referred to as a "hype kit" or "works". The kit consists of a cooker, handle, matches or lighter, a tourniquet and “cottons.”

As a DRE, 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 one 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. This technique is sometimes referred to as “trap dooring.”

There is not exact science to classify the age of puncture sites. However, there are some general puncture site classifications:

Classifications:

Fresh - A fresh puncture site is defined as 0 - 12 hours and will be a red dot and have a oozing appearance or blood crater with no scab formation.

Early - An early puncture site is approximately 12 - 96 hours (half day to 4 days) and will have a light scab, light bruise, reddened border and a crater appearance.

Late - A late puncture site is 5 - 14 days and will have a dark scab, dark bruise and the crater will flatten.

Healing - A healing puncture site is over 14 days old 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 subject’s body. The arms are the most frequently used place. The subject may use the ankles, neck, feet or any place where a vein is accessible.

It is necessary to conduct a thorough slow methodical examination of the subject’s arms. Using a magnifying light called a schematic light or “ski light,” examine the left inner arm as it is extended with the palm facing you. Then ask the subject 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 subject 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.

DRE's may elect to photograph new or recent injection marks for evidential purposes.

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 addicted user injects what is, for him, a "normal" dose of the drug. One hour later a DRE examines the addicted user 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 called Diacetyl Morphine?

5. What is Methadone?

6. An analgesic is a drug that __________?

7. What is MPPP?

8. What is Oxycodone?
**DRUG INFLUENCE EVALUATION**

Evaluator: Karl Nickelman, Sparks Police Department

**Session XVII-#1**

Date: 08/24/07 1805 Washoe County Jail

**EVALUATIONS**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Alcohol</th>
<th>Appearance</th>
<th>Mood</th>
<th>Speech</th>
<th>Coordination</th>
<th>Reflexes</th>
<th>Pupils</th>
<th>Postural Reflexes</th>
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</thead>
<tbody>
<tr>
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<td>1805</td>
<td>Washoe County Jail</td>
<td>Cooperative, active</td>
<td>Relaxed, slow, unstable</td>
<td>Normal</td>
<td>Normal</td>
<td>Normal</td>
<td>Equal</td>
<td></td>
</tr>
</tbody>
</table>

**Breath Test**

- **Breath Test Result**: 6.60
- **Chemical Test**: None
- **Test or tests refused**: No
- **Time of test drink**: N/A
- **Time of last drink**: N/A

**Physical Appearance**

- **Hair**: Normal
- **Eyes**: Normal
- **Face**: Normal
- **Injuries**: None
- **Skin**: Normal
- **Clothing**: Uniform (collection)

**Behavior**

- **Onset of intoxication**: None
- **Recent Intoxication**: No
- **Time of last drink**: N/A
- **Time of arrest**: 1805

**Evaluations**

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- **Skin**: Normal
- **Clothing**: Uniform (collection)

**Behavior**

- **Onset of intoxication**: None
- **Recent Intoxication**: No
- **Time of last drink**: N/A
- **Time of arrest**: 1805
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Vaughn, Gerald T.

1. LOCATION: The evaluation was conducted at the Washoe County Jail.

2. WITNESSES: Sergeant Mac Venzon of the Reno P.D witnessed the evaluation.

3. BREATH ALCOHOL TEST: Vaughn's breath test was 0.00%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was contacted and requested to contact Officer Gamwell at the Washoe County Jail for a drug evaluation. Officer Gamwell advised the suspect was operating a vehicle reported stolen earlier in the day by Reno PD. After stopping the suspect, Officer Gamwell noted that suspect’s speech was slow, slurred and raspy. His coordination was poor and he was licking his lips repeatedly. His pupils were constricted and he performed poorly on the SFST’s.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the interview room at the Washoe County Jail. He appeared to be asleep. His eyes were closed, his head kept nodding forward and his breathing was slow. The suspect responded to questions and became more alert as time passed. His voice was raspy and his pupils appeared constricted. He was licking his lips and his movements were slow and deliberate.

6. MEDICAL PROBLEMS AND TREATMENT: None noted or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect swayed approximately 2” front to back and 3” side to side. He estimated 30 seconds in 44 seconds. Walk and Turn: Suspect lost his balance during the instructions, missed heel to toe three times on the first nine steps and twice on the return. He also stepped off the line three times and used his arms for balance. One Leg Stand: Suspect counted slowly, swayed and used his arms for balance. He put his foot down once while standing on the left foot and twice when standing on the right foot. Finger to Nose: Suspect missed the tip of his nose with five of the six attempts.

8. CLINICAL INDICATORS: Suspect’s pulse and blood pressure were below the normal range. His pupils were constricted with no visible reaction to light. His eyelids were droopy.

9. SIGNS OF INGESTION: Subject had scar tissue on both his left and right forearms and a fresh oozing puncture wound on the back his left hand. (Photographed).

10. SUSPECT’S STATEMENTS: Suspect admitted using Methadone earlier in the day.

11. DRE’S OPINION: In my opinion Vaughn is under the influence of a Narcotic Analgesic and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a blood sample.

13. MISCELLANEOUS: Rev. 03/08
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Bursten, David L.

1. **LOCATION:** The evaluation was conducted at the PPB Central Traffic Precinct.

2. **WITNESSES:** Sgt Niiya of the Portland Police Bureau witnessed the evaluation.

3. **BREATH ALCOHOL TEST:** Bursten’s breath test was 0.00%.

4. **NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER:** Writer was contacted and advised to contact Sgt. Niiya and Officer Darke Hull for a drug evaluation. Officer Hull advised the suspect had failed to stop at a red light on N.E. Burnside and struck a pedestrian in the crosswalk. The pedestrian was transported to the hospital in serious condition. Officer Hull noted that the suspect had slow and deliberate movements and his speech was slow, slurred and raspy. He was unable to perform the SFST’s as directed and was arrested for DUI.

5. **INITIAL OBSERVATION OF SUSPECT:** Writer first observed the suspect in the interview room at the Central Precinct. He was repeatedly scratching his face and neck. His head kept nodding forward and he appeared to be “on the nod.” His voice was raspy, his pupils appeared to be constricted and his eyelids were droopy.

6. **MEDICAL PROBLEMS AND TREATMENT:** None noted or stated.

7. **PSYCHOPHYSICAL TESTS:** Romberg Balance: Suspect swayed approximately 3” in a circular motion and he estimated 30 seconds in 58 seconds. Walk & Turn: Suspect lost his balance during the instructions, stopped while walking once on the first nine steps and twice on the return. He walked very slowly and used his arms for balance. One Leg Stand: Suspect counted slowly, swayed, used his arms for balance and put his foot down. Finger to Nose: Suspect missed the tip of his nose on four of the six attempts.

8. **CLINICAL INDICATORS:** Suspect’s pulse, blood pressure and temperature were below the normal ranges. His pupils were constricted in two of the three lighting levels.

9. **SIGNS OF INGESTION:** Suspect had scars on his right forearm and fresh puncture wounds on the inside of his left arm. The puncture wounds were photographed.

10. **SUSPECT’S STATEMENTS:** The suspect refused to answer questions about drug use.

11. **DRE’S OPINION:** In my opinion Bursten is under the influence of a Narcotic Analgesic and unable to operate a vehicle safely.

12. **TOXICOLOGICAL SAMPLE:** The suspect provided a urine sample.

13. **MISCELLANEOUS:**

    Rev. 03/08
DRUG INFLUENCE EVALUATION

Evaluator: Lt. Tim Tomczak, Raleigh P.D.
Recorded By: Eddie Buffalo, NC DRE State Coordinator

DRE # 9139
Rolling Log # 07-033
Date Examined / Time / Location
03/17/07 2210 Raleigh P.D.

Breath Results: 0.00

Test Refused: 

Interview #: 4200

Case #: 07-35125

Sheelah Thomas

Date of Birth: 5/16/76
Sex: F
Race: M

Arresting Officer: Sgt. Brandon Craft
North Carolina H.P. #7745

Time Examined: 8 PM/2215 hours

Attitude: Sarcasm

Coordination: Slow, stumbling, staggering

Mental Status:

Wernicke Given: No

Sanford Given: No

Brain Status: None

Corrective Lenses: None

Brush Odor: Normal

Glasses:

Contacts, if so: No

Snodell Constricted:

Lack of Smooth Pursuit

Pupil Size:

Abnormal (tremor):

Equal:

Waxing:

Nonsensory:

Diluted:

Temperature:

97.7

Blood Pressure:

112/64

Mental Status:

None observed

Mental Status:

None observed

Mental Status:

None observed

Mental Status:

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None observed

Mental Status:

None observed

Mental Status:

None observed

Mental Status:

None observed

Mental Status:

None observed

Mental Status:

None observed

Mental Status:

None observed

Mental Status:

None observed

Mental Status:

None observed

Mental Status:

None observed

Mental Status:

None observed

Mental Status:

None observed

Mental Status:

None observed

Mental Status:
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Sheehan, Thomas

1. LOCATION: The evaluation was conducted at the Raleigh Police Department.

2. WITNESSES: The A/O; Sgt. Brandon Craft of the North Carolina Highway Patrol recorded the evaluation. Mr. Eddie Buffaloe, the N.C. DRE State Coordinator witnessed.

3. BREATH ALCOHOL TEST: Sheehan had a 0.00% breath test result.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was requested to contact Sergeant Craft for a drug evaluation. Sergeant Craft advised the suspect was observed drifting in and out of his traffic lane and driving 20 mph under the posted speed on Highway 64. Sergeant Craft noted the suspect had poor coordination and had slow and deliberate movements. His speech was slow and slurred. His pupils were constricted. He performed poorly on the SFST’s and was arrested for DUI.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the interview room at the Raleigh Police Department. He was sitting at the interview table scratching his face and appeared to be “on the nod.” His voice was low, slow and raspy. His pupils were constricted and his eyelids were droopy. He stated he was cold.

6. MEDICAL PROBLEMS AND TREATMENT: None noted or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect swayed approximately 2” front to back and side to side and estimated 30 seconds in 55 seconds. Walk & Turn: Suspect lost his balance during the instructions, missed heel to toe, stopped walking and used his arms for balance. One Leg Stand: Suspect counted slowly, swayed, used his arms for balance and put his foot down. Finger to Nose: Suspect missed the tip of his nose on five of the six attempts and used the incorrect order as directed.

8. CLINICAL INDICATORS: Two of the suspect’s three pulse rates were below the normal range. His blood pressure was below the normal range. His pupils were constricted in two of the three lighting levels. He had little to no visible reaction to light.

9. SIGNS OF INGESTION: None evident.

10. SUSPECT’S STATEMENTS: The suspect denied drug use.

11. DRE’S OPINION: In my opinion Sheehan is under the influence of a Narcotic Analgesic and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a urine sample.

13. MISCELLANEOUS: An empty bottle of Vicodin was located in the suspect’s vehicle.

Rev. 03/08
MID-COURSE REVIEW
SESSION XVIII  PRACTICE: TEST INTERPRETATION

Upon successfully completing this session the student will be able to:

- Analyze the results of a complete drug influence evaluation and identify the category or categories of drugs affecting the individual examined.
- Articulate the basis for the drug category identification.
The purpose of this session is to give you practice in interpreting the results of the drug influence evaluation. 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 provided.
**DRUG INFLUENCE EVALUATION**

**Evaluator**

Sgt. Don Marose, Minnesota State Police

**Session XVIII - #1**

**DRE #** 5707

**Rolling Log #** 07-02-33

**Case #** 07-200114

**Date of Birth**

5/20/80

**Sex** M

H

**Arresting Officer (Name, ID#)**

Trooper Derrick Hagen, Minnesota S.P. #5568

**Date of Case** 2/22/07

**Date of Intake**

2330

**Central Intake**

**Date of Criminal Incidents**

■ No

**Does the defendant have any history of criminal?**

■ No

**Has the defendant been previously arrested?**

N/A

**Has the defendant been previously convicted?**

N/A

**Is the defendant under the care of a doctor or dentist?**

■ Yes  ■ No

**Is the defendant taking any medication or drugs?**

■ Yes  ■ No

**Are you under the care of a doctor or dentist?**

■ Yes  ■ No

**Are you taking any medication or drugs?**

■ Yes  ■ No

**Do you have any physical defects?**

■ Yes  ■ No

**Are you diabetic or epileptic?**

■ Yes  ■ No

**Are you under the care of a doctor or dentist?**

■ Yes  ■ No

**Assessment of Mental Health**

■ Normal  ■ Slurred  ■ Staggering  ■ Drowsy

**Time now/Actual**

When did you last sleep? How long

■ N/A  ■ 0

Are you tired or hungry?

■ N/A  ■ 0

**Attitude**

Non-responsive, passive

**Coordination**

Unsteady, staggering

**Speech**

Slow, slurred

**Breath Odor**

Chemical-like odor

**Face**

Blank stare

**Corrective Lenses**

■ None

**Glasses**

□ Contacts, if any

**Hair**

□ Hard  □ Soft

**Eyes**

□ Reddened  □ Constricted

**Bloodshot**

□ None  □ Left  □ Right

**Blood Pressure**

156/98

**Temperature**

99.4

**Pupil Size**

■ Normal  ■ Equal

**Eye Movement**

■ Normal  ■ Unilateral (explain)

**Pupil Reflex**

■ Equal

**Body Temperature**

Normal

**Muscle Tone**

□ Normal  □ Flaccid  □ Rigid

**Comments Arms and Legs**

**Rigid Movements**

**Draw lines to spots touched**

**PUPIL SIZE**

■ Room Light  ■ Darkness

**Lasers**

■ Direct  ■ 3.0 - 4.5

**Cannot do test (explain)**

N/A

**REACTION TO LIGHT**

Normal

**Draw lines to spots touched**

**REBOUND DILATION**

■ Yes  ■ No

**EVALUATION START TIME**

2330

**EVALUATION COMPLETION TIME**

0015 2/23/07

**Date/Time of arrest**

2/22/07

**Time DRE was notified**

2245

**DRE #** 5707

**Rewritten/accessed by/date**

Revised: 06/07
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Martinez, Juan M.

1. **LOCATION:** The evaluation was conducted at Central Intake at M.P.D..

2. **WITNESSES:** Sgt. Bryan Schafer of M.P.D. recorded the evaluation.

3. **BREATH ALCOHOL TEST:** Martinez had a breath test of 0.00%.

4. **NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER:** Writer was contacted and requested to contact Trooper Hagen at the Intake Center for a drug evaluation. Trooper Hagen advised he had observed the suspect on the West River Parkway drifting over the lane divider line nearly hitting other vehicles. When stopped, the suspect appeared dazed and confused. He had a blank stare and was non-responsive at times. He did poorly on the SFST’s and was arrested for DUI.

5. **INITIAL OBSERVATION OF SUSPECT:** Writer first observed the suspect in the Intake Center. He appeared dazed and disoriented. He had a fixed, blank stare and responded very slowly to questions. His speech was slow, slurred and confused.

6. **MEDICAL PROBLEMS AND TREATMENT:** None noted or stated.

7. **PSYCHOPHYSICAL TESTS:** Romberg Balance: Suspect swayed approximately 3” side to side and estimated 30 seconds in 33 seconds. Walk & Turn: Suspect lost his balance twice during the instructions, stopped walking twice and used his arms for balance. One Leg Stand: Suspect put his foot down twice while standing on his left foot and nearly fell while attempting to stand on his right and the test was stopped. Finger to Nose: Suspect missed the tip of his nose on three of the six attempts and his arm movements were very rigid.

8. **CLINICAL INDICATORS:** Suspect had six clues of HGN and exhibited an early onset of Nystagmus. Vertical Gaze Nystagmus and Lack of Convergence were also present. The suspect’s pulse and blood pressure were above the normal ranges.

9. **SIGNS OF INGESTION:** There was a chemical-like odor on the suspect’s breath.

10. **SUSPECT’S STATEMENTS:** The suspect did not respond to questions about drug use.

11. **DRE’S OPINION:** In my opinion Martinez is under the influence of a __________ __________ and unable to operate a vehicle safely.

12. **TOXICOLOGICAL SAMPLE:** The suspect provided a blood sample.

13. **MISCELLANEOUS:** A glass vial with an unknown liquid was found on the suspect.

Rev. 03/08
DRUG INFLUENCE EVALUATION

Evaluator: Trooper Sam Ketchum, Idaho State Police
DRE #: 9323
Rolling Log #: 07-22
Session XVIII - #2

Inmate's Name: Sat. Dean Matlock, Idaho State Police
Estate: None
Date of Birth: 8/10/77
Sex: M
Race: W

Date Examined / Time / Location: 10/15/07 1430 Ada Co Jail
Test Results: Breath Results - 0.00

Chemical Test: Blood

Time now / Actual: 1:00 PM / 1430
When did you last sleep? Last night
How long: 4 hours
Are you tired or injured? Yes
Are you diabetic or epileptic? No
Do you have any physical defects? No
Are you under the care of a doctor or dentist? Yes

Attitude: Cooperative
Coordination: Poor, wobbly, stumbling
Speech: Slow, slurred
Breath Odor: Normal, sweet, mellow
Face: Normal

Corrective Lens: None
Glasses: None
Contact lens: None
Frame: None

Eye: Redblack / Compressible
Blindness: None

Nystagmus: Able to follow stimulus

Pupil Size: Equal

Vertical Nystagmus: Yes

Convergence: XX

Rinne test: Left ear
Stapedius: Left ear

1. 60 / 1445
2. 60 / 1500
3. 60 / 1520

Romberg Balance: 2' 3' 3' 3'

Circular sway: None

Internal clock: 15 minutes
Describe Turn: Lose balance, staggering to right

Blood pressure: 106/64
Temperature: 97.8

Muscle tone: Normal

PUPIL SIZE: Room Right 2.0 2.5 2.0
Darkness 5.0 - 8.5
Direct 2.0 - 4.5

LEFT EYE

RIGHT EYE

REBOUND DILATION: No

REACTION TO LIGHT: None

No visible marks

What drugs or medications have you been using? None
How much?

Time of use: 1:00 PM

Where were the drugs used? Location:

Date / Time of arrest: 10/15/07 1325
Police Station / Station Information:

Officer's Signature: DRE # 9323

Reviewed/approved by / date:

Opinion of Evaluator: No

Drug Use:

Date: 08/07

HS172A R01/10 7
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Groves, Robert G.

1. **LOCATION:** The evaluation was conducted at the Ada County Jail Intake Center.

2. **WITNESSES:** Sergeant Dean Matlock of the Idaho State Police recorded the evaluation.

3. **BREATH ALCOHOL TEST:** Groves’ breath test was 0.00%.

4. **NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER:** Writer was contacted and requested to contact Officer Cavanaugh at the Intake Center for a drug evaluation. Officer Cavanaugh advised that he had observed the suspect’s vehicle drifting over the center line and traveling 15 mph under the posted speed zone on W. Overland Road. When stopped, the suspect had slow and slurred speech. His balance and coordination was poor and he did poorly on the SFST’s and was arrested for DUI. He admitted to taking a “couple pain pills” for his back.

5. **INITIAL OBSERVATION OF SUSPECT:** Writer first observed the suspect in the Intake Center. He appeared sleepy and his head was nodding forward. His speech was slow and slurred. When he stood, his balance was poor and he staggered when he walked.

6. **MEDICAL PROBLEMS AND TREATMENT:** The suspect stated he was taking pain medicine for a back injury he suffered about five years ago.

7. **PSYCHOPHYSICAL TESTS:** Romberg Balance: Suspect swayed approximately 3” in a circular sway and estimated 30 seconds in 53 seconds. Walk & Turn: Suspect lost his balance twice during the instructions, missed heel to toe three times, stepped off the line four times and used his arms for balance. One Leg Stand: Suspect put his foot down twice while standing on each foot and counted slowly. Finger to Nose: Suspect missed the tip of his nose on all six attempts and had slow arm movements.

8. **CLINICAL INDICATORS:** The suspect’s pulse was at the low end of normal. His blood pressure was below the normal range. His pupils were constricted in two of the lighting levels and had no reaction to light.

9. **SIGNS OF INGESTION:** None were evident.

10. **SUSPECT’S STATEMENTS:** Suspect admitted taking a “couple pain pills” with dinner.

11. **DRE’S OPINION:** In my opinion Groves is under the influence of a _______________ and unable to operate a vehicle safely.

12. **TOXICOLOGICAL SAMPLE:** The suspect provided a urine sample.

13. **MISCELLANEOUS:**

Rev. 03/08
DRUG INFLUENCE EVALUATION

Session XVIII - #3

Evaluating
Dpty. Greg Nottingham, Maricopa Co. S.O.

Attorney
Dan Mullenex, Phoenix P.D.

Date Examined / Time / Location:
11/25/07 2210 Maricopa Co Jail

Misdemeanor Warning Given
□ Yes □ No

What have you eaten today? When?
Steak dinner 7 PM

What have you been drinking? How much?
Glass of wine 1 glass

Time now/Actual
11 PM 2215

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

□ Yes □ No

Are you taking any medication or drugs?

Attitude:
Cooperative, nervous

Coordination:
Poor, jerky, stumbling

Speech:
Normal, talkative

Corrective Leases:
□ None

Glasses:
□ Contacts, if so
□ Hard □ Soft

Ear:
□ Normal □ Bloodshot Water

Blushes:
□ None □ Left □ Right

Tricking:
□ Equal □ Unequal

Pupil Size:
□ Equal

Vertical Nystagmus:
□ Yes □ No

Frem:
□ Normal □ Droopy

Pupil Reflex:
□ Normal □ Anisocoria (explain)

Pulse and time
1. 100
2. 100
3. 88

Blood pressure
146/92

Temperature
99.2

Mental state:
□ Normal □ Flaccid □ Rigid

Comments:

What drugs or medications have been used? How much?

Date / Time of arrest:
11/25/07 2105

Drugs or medication

Time DRE was notified:
2145

Evaluation start time:
2120

Evaluation completion time:
2315

Proctor/Station:
Central

Officer's Signature:

Opinion of Evaluating:
□ Rate Out □ Alcohol □ Medical
□ CNS Depressant □ CNS Stimulant □ Dissociative Agent
□ Inhalant □ Hallucinogen □ Narcotic Analgesic □ Cannabis

OME S

ONE LEG STAND

35/30

Draw lines to spots touched

PUPIL SIZE
□ Yes □ No

Room Light 2.5 - 5.0
Darkness 5.5 - 8.5
Direct 2.0 - 4.5

Tingling eye
6.5

Rigorous arm
XX XX

Settle
XX XX

Closed

REBOUND DILATATION
□ Yes □ No

REACTION TO LIGHT:
□ Yes □ No

RIGHT ARM

LEFT ARM

Nothing observed

Type of footwear:
Loafers

Navel area:
Red, bloody left nostril

Oral cavity:
Clear

Mastication:

OVD
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Hatos, Carlos

1. LOCATION: The evaluation was conducted the DRE room at the Maricopa County Jail.

2. WITNESSES: Dan Mulleneaux, the State DRE Coordinator witnessed the evaluation.

3. BREATH ALCOHOL TEST: Hatos had a breath test of 0.04%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was contacted and requested to meet Officer Toland at Maricopa County Jail for a drug evaluation. Officer Toland advised he had observed the suspect's vehicle traveling at a high rate of speed on East Camelback Road. When stopped, the suspect appeared nervous and was very talkative. The suspect did poorly on the SFST's and was arrested for DUI.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the DRE interview room at the Maricopa County Jail. The suspect was very talkative, repeatedly shifted his weight from foot to foot and was making abrupt, quick hand movements. When not speaking, he appeared to be grinding his teeth. There was an odor of alcoholic beverage on the suspect's breath.

6. MEDICAL PROBLEMS AND TREATMENT: None noted and none stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect swayed approximately 3” side to side and approximately 2” front to back. He estimated 30 seconds in 26 seconds. Walk & Turn: Suspect lost his balance during the instructions, stopped twice while walking, missed heel-to-toe four times and raised his arms for balance four times. One Leg Stand: Suspect put his foot down once while standing on each foot, swayed while balancing and used his arms for balance. Finger to Nose: Suspect missed the tip of his nose on three of the six attempts and performed attempt #5 and #6 with the wrong hand.

8. CLINICAL INDICATORS: The suspect had a lack of smooth pursuit and a lack of convergence. His pulse and blood pressure were above the normal ranges. His pupils were dilated in two lighting levels and he had a slow reaction to light.

9. SIGNS OF INGESTION: None were evident.

10. SUSPECT'S STATEMENTS: Suspect admitted drinking a glass of wine but denied using any other drugs.

11. DRE'S OPINION: In my opinion Hatos is under the influence of ________________ and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a urine sample.

13. MISCELLANEOUS: Rev.0308
DRUG INFLUENCE EVALUATION

Session XVIII - #4

Case # 07-899105

Evaluator: Officer Virgil Miller, Wichita PD

Date of Test: 3/18/07

Rolling Log #: 07-035

Driving log #: 10828

Drug Related: None

Det. Karrina Brasser, Sedgwick Co. S.O.

Armstrong's Name (Last, First, Middle)

Jackson, Scott M.

Date of Birth: 7/15/75

Sex: M

Race: W

Arresting Officer (Name, ID#)

Trooper Mark Crump, Kansas H.P. #3448

Drug Test:

Chemical Test:

Gras: No

Blood: No

Drug Test:

Test or tests refused:

Test Results: 0.00

Instrument #: 880775

Drink and drug taken:

Eggs and toast: 9AM

Coffee: 2 cups

What have you eaten today?

What have you been drinking?

Time of last drink:

N/A

Do you have a physical defects?

Yes No

Are you under the care of a doctor or dentist?

Yes No

Are you taking any medication or drugs?

Passive, cooperative

Attitude:

Poor, unsteady

Coordination:

Shoddy, thick, slurred

Speech:

Breath Odor: Halitosis

Face: Flushed, blank stare

Corrective Lenses:

None

Glasses:

Contacts, eso.

Hard

Soft

Eye:

Reddened Conjunctivitis

Normal

Bloodshot

Wet eye

Blindness:

None

Left

Right

Tracking:

Equal

Unequal

Pupil Size:

Equal

Unequal

Convergence

Vertical Nystagmus

Able to follow stimulus:

Yes

No

Eyelids:

Normal

 Droopy

Time now:

Astral

Midnight/2042

When did you last sleep?

7 hrs.

Are you sick or injured?

Yes No

Are you under the care or regulation?

Yes No

Do you take any medicine or drugs?

One leg stand

3° 3° 3° 3°

Walk and Turn test

M M M M

M M M M

S M M S

Cannot keep balance

X

Starts too soon

X

Steps walking:

XXX

XX

Steps off line:

XX

X

Misses heel:

XX

XXX

Steps taken:

0

9

Both stopped for safety reasons

Neither

Clear

Oral cavity:

Clear

Pupil size:

Light:

Left Eye

2.0

Direct:

Right Eye

2.0

2.0

2.0

N/A

Rebound Dilation:

None visible

Reaction to light:

Right arm:

Fresh puncture wounds, red, oozing

Left arm:

Blood pressure:

122/68

Temperature:

98.6

Muscle tone:

Normal

Flaccid

Rigid

What drugs or medication have you been using?

"I didn't use anything today"

How much?

N/A

Time of use:

N/A

Where were the drugs used?

N/A

Time DRE was notified:

3/18/07 11:00 hrs

Time DRE was notified:

1950

Evaluation start time:

Evaluation completion time:

2145

Precise Station:

10828

Reviewed/Approved by:

Officer's Signature:

DRE #

10828

Opinion of Evaluator:

DRE.

Alcohol

Medical

CNS Depressant

No

CNS Stimulant

Intoxication

Hallucinogen

Narcotic Analgesic

imintan

Cannabis

Revised: 09/07
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Jackson, Scott M.

1. LOCATION: The evaluation was conducted at the Sedgwick County Jail.

2. WITNESSES: Detective Karrina Brasser witnessed and recorded the evaluation.

3. BREATH ALCOHOL TEST: Jackson's breath test was 0.00%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was contacted and requested to contact Trooper Crump at the Sedgwick County Jail for a drug evaluation. Trooper Crump advised he located the suspect's vehicle traveling E/B on Highway 54 near the Garden Plain exit. The suspect was traveling at approximately 45 mph and drifting in and out of his lane. When Trooper Crump tried to stop the suspect, he continued without stopping for over a mile. The suspect had a blank stare and his speech was thick and slow. The suspect did poorly on the SFST's and was arrested for DUI.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the interview room at the jail. He was cooperative and had slow, thick, slurred speech. He was slow to respond to questions and was unstable on his feet.

6. MEDICAL PROBLEMS AND TREATMENT: None noted or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect swayed approximately 3" side to side and front to back. He estimated 30 seconds in 42 seconds. Walk & Turn: Suspect lost his balance during the instructions, stepped off the line twice on the first nine steps and once on the second nine steps. He also missed heel-to-toe five times, stopped while walking twice and raised his arms for balance. He also made an improper turn. One Leg Stand: Both tests were stopped for safety reasons after he put his down numerous times and nearly fell. Finger to Nose: Suspect missed the tip of his nose on five of the six attempts.

8. CLINICAL INDICATORS: The suspect's pulse and blood pressure were below the normal ranges. His pupils were constricted in two of the three lighting levels.

9. SIGNS OF INGESTION: The suspect had two fresh puncture marks on his left forearm.

10. SUSPECT'S STATEMENTS: Suspect denied using drugs.

11. DRE'S OPINION: In my opinion Jackson is under the influence of a ______________ and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a blood sample.

13. MISCELLANEOUS:

Rev. 03/08
DRUG INFLUENCE EVALUATION

Evaluator: Sgt. Paul Kotter, Utah Highway Patrol
DRE #: 10262
Rolling Log #: 07-01-02
Case #: 07-00345
Session XVIII - #5

Suspect: Kettle Oak, Utah Highway Patrol
Date of Birth: 04/14/84
Sex: M
Race: W

Date Examined / Time / Location: 01/17/07 2200 Salt Lake City P.D.
Breath Results: Results: 0.00

Breath Alcohol: Test Refused Instrument #: 47745
Chemical Test: Urine
Blood

Drug Warning Given: Yes
"Burger"
Afternoon

What have you been drinking? How much? Time of last drink?

Time Now / Actual: 9 PM/10.03 PM
Last night: 3 hours

Are you sick or injured? Are you diabetic or epileptic?

Are you taking any medication or drugs?

Valium - 2 each day

Attitude: Cooperative
Coordination: Poor, staggering
Speech: Thick, slow, slurred
Breath Odor: Normal
Face: Normal, dazed look

Corrective Lenses: None
Glasses: None
Contact lenses: Soft

Open / Closed: Yes
Unusual (explain)

Pupil Size: Equal

Pulse and time:

1. 60 / 2212
2. 58 / 2212
3. 56 / 2215

Romberg Balance: L

Walk and turn test:

S

M

S

M

HAD TO REPEAT INSTRUCTIONS

No reaction

Eye Movements:

Ability to follow stimulus:

Trigger:

Coordination:

Rebound Dilation:

Reaction to Light:

Type of Footwear:

Slow Movements:

Blood Pressure: 112/88
Temperature: 98.0

Muscle tone: Normal

Other:

Nothing observed

Opinion of Evaluator:

Drug tested:

Location:

Date of arrest:

Time DRE was notified:

Evaluation start time:

Evaluation completion time:

Place of arrest:

Signature:

Approved by:

Date:

10/26

Revised 06/07

HS172A R01/10 13
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Stevens, William A.

1. LOCATION: The evaluation was conducted at the Salt Lake City Police Department.

2. WITNESSES: Sergeant Kellie Oaks of the Utah H.P. witnessed the evaluation.

3. BREATH ALCOHOL TEST: Stevens had a breath test of 0.00%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was requested to contact Officer Whitaker at the Salt Lake City Police Department for a drug evaluation. Officer Whitaker advised he had located the suspect’s vehicle stopped in the intersection at California and S. 900th. He contacted the suspect who sitting in the driver’s seat. He had a dazed appearance and his speech was thick, slurred and slow. He had six clues of HGN, did poorly on the SFST’s and was arrested for DUI.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the interview room at the P.D. The suspect was cooperative and had slow, thick, slurred speech. He was slow to respond to questions. His balance was poor and he staggered when walking.

6. MEDICAL PROBLEMS AND TREATMENT: The suspect stated he was seeing Dr. Frank at the Clinic. Dr. Frank had prescribed him Valium for anxiety problems.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect swayed approximately 2” in a circular motion and he estimated 30 seconds in 38 seconds. Walk & Turn: Suspect lost his balance twice during the instructions, stepped off the line twice, missed heel to toe three times, stopped twice and used his arms for balance. He also lost his balance when he turned. One Leg Stand: Suspect put his foot down twice on each attempt, swayed while balancing and used his arms for balance. Finger to Nose: Suspect missed the tip of his nose on three of the six attempts. He used the pads of his fingers on attempts #1, #3 and #6.

8. CLINICAL INDICATORS: Suspect had six clues of HGN with a 30 degree angle of onset. He also had VGN and a Lack of Convergence. His pulse was below the normal range on two of the three checks and his blood pressure was below the normal range.

9. SIGNS OF INGESTION: Nothing observed or detected.

10. SUSPECT'S STATEMENTS: Suspect admitted taking two Valium earlier in the day.

11. DRE’S OPINION: In my opinion Stevens is under the influence of ______________ and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a urine sample.

13. MISCELLANEOUS: Rev. 03/08

HS172A R01/10  14
Evaluating Officer: Aaron Rohner, California H.P.
Rolling Log #: 07-06-25
Session XVIII - #6

 Boone's Log: Officer Kevin Craig, CHP
Arrestee's Name: (Last, First, Middle) Sholly, Cameron H.
Date of Birth: 10/3/78
Sex: M
Race: W
Arresting Officer (Name, ID#): Officer Tom Fishaven, CHP #88744

Date/Location/Time of Arrest: 06/10/07 1445 Sacramento Co Jail
Results: 0.00
Chemical Test: Urine 1 Blood 0

Minutes Warning Given: Yes
Given By: Officer Fishaven
No
What have you eaten today? When? Nothing
What have you been drinking? How much? "I didn't drink anything"
Time last drink?

Do you like to drink? Yes
"How long? About 2 days ago"
Are you sober or impaired? Yes
"Are you under the care of a doctor or dentist?"
Yes
Are you under the care of a doctor or dentist? No
"I don't go to the doctor"
Are you taking any medication? No
d, "I don't take anything"
"What kind of medication?"
Cooperative
Attitude: Cooperative
Coordination: Slow, sluggish
Speech: Slow
Breath Odor: Normal
Face: Normal

Corneal Reflex: None
Pupil: Equal
Sclera: White
Bloodshot: No

HGN: Left Eye Right Eye
Loss of Smooth Pursuit No No
Maximum Deviation No No
Angle of Gaze None None

Pupil Size: Equal
Pupillary Response: Left 2 mm larger

Romberg Balance: Unable
Walk and Turn Test: Unable

Internal Clock: 28 estimated as 50 seconds
Describe Turn: N/A

Pupil Size: Left Eye Right Eye
Room Light 2.5-5.0 4.0-5.0
Darkness 5.0-8.5 5.0-8.5
Direct 2.0-4.5 3.0

Concrete Right Eye

EEG Dilation:

Reaction to Light:

Type of Footwear: Work boots

Blood Pressure: 146/88
Temperature: 98.8

Muscle Tone:

Comments:

What drugs or medications have you been using? "I took Tylenol this morning."
How much?
Time of use?
Where were the drugs used? (Location)

Time of arrest: 06/10/07 1400
Time DRE was notified: 1440
Evaluation start time: 1443
Evaluation completion time: 1445

Officer's Signature: Officer # 108003
Review/Approved by: Date:

Options of Evaluation:

No visible marks

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Sholly, Cameron H.

1. LOCATION: The evaluation was conducted at the Sacramento County Jail.

2. WITNESSES: Officer Kevin Craig of the CHP witnessed and recorded the evaluation.

3. BREATH ALCOHOL TEST: Sholly had a breath test of 0.00%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was requested to meet Officer Flahaven and Craig at the Sacramento County Jail for a drug evaluation. According to Officer Flahaven, Sholly was a driver involved in a fatal crash on I-5 north of Sacramento. His vehicle rear-ended a stopped vehicle at a construction site. Sholly was sluggish acting at the scene and was slow to respond to questions. His speech was slow and slurred at times and he was unstable on his feet.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed Sholly in the interview room at the jail. He was cooperative and appeared stable. He was slow to respond to questions and he slurred his speech at times. He seemed confused and anxious.

6. MEDICAL PROBLEMS AND TREATMENT: Sholly was slow to respond when asked about medical problems and/or medical treatment. He eventually stated, “I don’t go to the doctor. They don’t know what they’re doing.”

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Sholly exhibited no sway and he estimated 30 seconds in 28 seconds. Walk & Turn: Sholly started too soon twice, took two steps, stepped off the line and said, “This is impossible!” and refused to continue. One Leg Stand: Sholly put his foot down one time while standing on each foot and swayed while balancing. Finger to Nose: Sholly missed the tip of his nose on four of the six attempts.

8. CLINICAL INDICATORS: Sholly’s pulse and systolic blood pressure were above the normal ranges. His pupils were unequal in all three lighting levels.

9. SIGNS OF INGESTION: None were evident or stated.

10. SUSPECT’S STATEMENTS: Sholly admitted taking Tylenol only.

11. DRE’S OPINION: In my opinion Sholly is _____________________________.

12. TOXICOLOGICAL SAMPLE: Sholly provided a blood sample.

13. MISCELLANEOUS:

Rev. 03/08
SESSION XIX

INHALANTS
SESSION XIX INHALANTS

Upon successfully completing this session the student 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.
- 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.
- List the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of this drug category.
- 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. Inhalants are sometimes called deliriants, in that they may produce delirium. Delirium is usually a brief state characterized by incoherent excitement, confused speech, restlessness and possible hallucinations. Depending on the nature of the particular Inhalant, the effects produced may be similar to those of stimulants, depressants, or hallucinogens.

There are three major subcategories of Inhalants: volatile solvents, aerosols and anesthetic gases.

The volatile solvents 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". Plastic model cement includes the following volatile chemicals: toluene, acetone, naphtha, aliphatic acetates, hexane, cyclohexane, and benzene. Other frequently abused volatile solvents include: paint, gasoline, paint thinners, dry cleaning fluids, typewriter correction fluid, engine degreasers, spray paint, and fingernail polish removers.

The aerosols 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 gases that produce drug effects.

The majority of abusers of volatile solvents and aerosols are pre-teens and teenagers.

The third subcategory, the anesthetic gases, 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, amyl nitrite, butyl nitrite, and isobutyl nitrite. Adults may be more frequent users of the anesthetic gases.

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 lower than normal. Apparently, this is due to the fact that the anesthetic gases can dilate the blood vessels around the heart thus causing a lowered blood pressure. Pulse rate, however, usually is increased by all three subcategories of Inhalants.

Some Inhalant users prefer to put their Inhalants 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. Some common street names that Inhalant users use are, “Huffing”, “Hacking”, “Balloonning” and “Glading”. 
B. Possible Effects of Inhalants

The effects of Inhalants vary from one substance to another. Common effects include:

- altered shapes and colors
- antagonistic behavior
- bizarre thoughts
- distorted perceptions of time and distance
- dizziness and numbness
- drowsiness and weakness
- euphoria and grandiosity
- floating sensation
- inebriation similar to alcohol intoxication
- intense headaches
- light-headedness
- nausea and excessive salivation
- possible hallucinations

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:

- permanent damage to the central nervous system
- liver damage
- kidney damage
- bone and bone marrow damage
- greatly reduced mental and physical abilities
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 Gaze 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).

Reaction to light - slow.

Romberg - subjects will exhibit impairment and will tend to sway when performing this test.

Walk and Turn - subjects will exhibit impairment and will often take slow deliberate steps and will commonly stagger.

One Leg Stand - subjects will exhibit impairment and will tend to sway when performing this test.

Finger To Nose - subjects will exhibit impairment and will tend to sway when performing this test.

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 - flaccid or normal (Anesthetic Gases may cause muscles to be flaccid)
General Indicators:

- bloodshot, watery eyes
- confused
- disoriented appearance
- flaccid or normal muscle tone
- flushed face, possibly sweating
- intense headaches
- lack of muscle control
- non-communicative
- odor of the inhaled substance
- possible nausea
- residue of substance around face, nose, hands or clothing
- slow, thick, slurred speech
**Topics for Study**

1. What are the three major subcategories of Inhalants?

2. What are some of the principal active ingredients 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?

5. The effects of Amyl Nitrite and Butyl Nitrite last from a few seconds to up to ______ minutes.
## DRUG INFLUENCE EVALUATION

**Evaluator**
Sgt. Gerry Rott, Yarmouth PD

**DR#**
5470

**Rolling Log #**
07-07-15

**Session XIX - #1**

**Date Examined / Time / Location**
07/04/07 2200 Middleborough PD

**Breath Results:**
- Test Refused: ☐
- Test or Blood Refused: ☐

**Chemical Test:**
- Urine: ☐
- Blood: ☑

**Aurist's Name (Last, First, Middle):**
Graves, James L.

**Sex:** M

**Age:** 6/8/88

**Race:** W

**Arresting Officer (Name, ID):**
Sgt. Deb Batista, Middleborough PD #6690

**Date of Birth:** 6/8/88

**Sex:** M

**Race:** W

**Date Examined / Time / Location:**
07/04/07 2200 Middleborough PD

**Blood Alcohol Level:** N/A

**Time Examined / Actual:**
10 PM / 10:10 PM

**Last night:** 6 hrs.

**Time Examined / Actual:**
10 PM / 10:10 PM

**Last night:** 6 hrs.

**Do you take insulin?**
- Yes ☑
- No ☐

**Are you diabetic or epileptic?**
- Yes ☐
- No ☑

**Are you taking any medication or drugs?**
- Yes ☑
- No ☐

**Speech:**
- Slurred / mumbling: Yes ☑
- Paint / chemical odor: Paint residue on cheeks and chin

**Corneal Reflexes:**
- Light: Yes ☑
- Dark: Yes ☑

**Pupillary Size:**
- Left: 2.5 - 5.0
- Right: 2.5 - 5.0

**Pupil Size:**
- Left: 2.5 - 5.0
- Right: 2.5 - 5.0

**Blood Pressure:**
140/100

**Temperature:**
98.6

**Generalized Comments:**

**What drugs or medications have you been using?**

**How much?**

**Time of use?**

**Where were the drugs used?**

**In the past:**

**Date / Time of arrest:**
07/04/07 2130

**Time DRE was notified:**
2145

**Evaluation start time:**
2200

**Evaluation completion time:**
2310

**Officer's Signature:**

**Opinion of Evaluator:**
- Foul Our ☐
- Altered ☑
- Medical ☐
- CNS Depressant ☐
- Hallucinogen ☐
- Narcotic Analgesic ☐
- Inebriate ☐

**DRE #**
5470

**Reviewed / Approved by / Date:**

Formed 09/07

---

**DRE # 5470:**

**Rolling Log # 07-07-15:**

**Session XIX - #1:**

**Date Examined / Time / Location:**
07/04/07 2200 Middleborough PD

**Breath Results:**
- Test Refused: ☐
- Test or Blood Refused: ☐

**Chemical Test:**
- Urine: ☐
- Blood: ☑

**Aurist's Name (Last, First, Middle):**
Graves, James L.

**Sex:** M

**Age:** 6/8/88

**Race:** W

**Arresting Officer (Name, ID):**
Sgt. Deb Batista, Middleborough PD #6690

**Date of Birth:** 6/8/88

**Sex:** M

**Race:** W

**Date Examined / Time / Location:**
07/04/07 2200 Middleborough PD

**Blood Alcohol Level:** N/A

**Time Examined / Actual:**
10 PM / 10:10 PM

**Last night:** 6 hrs.

**Time Examined / Actual:**
10 PM / 10:10 PM

**Last night:** 6 hrs.

**Do you take insulin?**
- Yes ☑
- No ☐

**Are you diabetic or epileptic?**
- Yes ☑
- No ☐

**Are you taking any medication or drugs?**
- Yes ☑
- No ☐

**Speech:**
- Slurred / mumbling: Yes ☑
- Paint / chemical odor: Paint residue on cheeks and chin

**Corneal Reflexes:**
- Light: Yes ☑
- Dark: Yes ☑

**Pupillary Size:**
- Left: 2.5 - 5.0
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**Temperature:**
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**Generalized Comments:**

**What drugs or medications have you been using?**

**How much?**

**Time of use?**

**Where were the drugs used?**

**In the past:**

**Date / Time of arrest:**
07/04/07 2130

**Time DRE was notified:**
2145

**Evaluation start time:**
2200

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2310

**Officer's Signature:**

**Opinion of Evaluator:**
- Foul Our ☐
- Altered ☑
- Medical ☐
- CNS Depressant ☐
- Hallucinogen ☐
- Narcotic Analgesic ☐
- Inebriate ☐

**DRE #**
5470

**Reviewed / Approved by / Date:**

Formed 09/07
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Graves, James L.

1. **LOCATION:** The evaluation was conducted at the Middleboro Police Department.

2. **WITNESSES:** Sgt. Don Decker of the Marblehead P.D. witnessed the evaluation.

3. **BREATH ALCOHOL TEST:** Graves had a breath test of 0.00%.

4. **NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER:** Writer was requested to contact Sergeant Batista at the Middleboro Police Department for a drug evaluation. Sgt. Batista advised she arrested Graves for DUI after observing him fail to stop at a red traffic light at Main and Wareham Street. The suspect was cooperative but appeared dazed. He performed poorly on the SFST’s and was arrested for DUI. A can of gold spray paint was located in the front seat of the suspect’s vehicle along with paint soaked rags.

5. **INITIAL OBSERVATION OF SUSPECT:** Writer first observed the suspect in the interview room at the P.D. He appeared passive and dazed. He had very poor coordination and balance. Gold paint smears were visible on his hands and face.

6. **MEDICAL PROBLEMS AND TREATMENT:** None noted or stated.

7. **PSYCHOPHYSICAL TESTS:** Romberg Balance: The suspect was unable to perform the test and it was stopped for safety reasons. Walk & Turn: The suspect lost his balance three times and the test was stopped for safety reasons. One Leg Stand: The suspect put his foot down three times while standing on the left foot and the test was stopped. He was unable to perform the test when attempting to stand on the right foot and the test was stopped for safety reasons. Finger to Nose: The suspect was allowed to sit down for this test. He used the palm of his hands and touched in the general area of his nose.

8. **CLINICAL INDICATORS:** The suspect had six clues of HGN and a Lack of Convergence. His pulse and blood pressure were above the normal ranges.

9. **SIGNS OF INGESTION:** Paint-like odor on his breath. Paint smears on hands and face.

10. **SUSPECT’S STATEMENTS:** Suspect admitted “huffing” some gold paint in the park to celebrate the 4th of July.

11. **DRE’S OPINION:** In my opinion Graves is under the influence of an Inhalant and unable to operate a vehicle safely.

12. **TOXICOLOGICAL SAMPLE:** The suspect provided a blood sample.

13. **MISCELLANEOUS:**

Rev. 03/08
**DRUG INFLUENCE EVALUATION**

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DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Mashburn, Cathy

1. LOCATION: The evaluation was conducted at the Polk County Jail.

2. WITNESSES: The evaluation was witnessed and recorded by Sergeant Russ Belz of the Story County Sheriff’s Office.

3. BREATH ALCOHOL TEST: Mashburn’s breath test was 0.00%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was notified by radio to contact Deputy Grimm at the Polk County Jail for a drug evaluation. Deputy Grimm advised he arrested Mashburn after observing her pull out in front of oncoming traffic nearly causing a crash. The suspect was cooperative but slow to respond to questions. She performed poorly on the SFST’s and was arrested for DUI. After arresting her, Deputy Grimm located a can of paint remover and several rags in her vehicle.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the interview room at the jail. Her speech was slow and slurred. Her coordination was poor and she staggered several times. Her eyes were watery and bloodshot.

6. MEDICAL PROBLEMS AND TREATMENT: The suspect stated she felt dizzy.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: The suspect had an approximate 3” circular sway and she estimated 30 seconds in 19 seconds. Walk & Turn: The suspect lost her balance twice during the instructions, staggered and nearly fell. The test was stopped after six steps when she again nearly fell. One Leg Stand: After putting her right foot down three times and nearly falling, the test was stopped. Finger to Nose: The suspect had difficulty with this test. She touched the tip of her nose on one of the six attempts. She also used the wrong hand on attempts #5 and #6.

8. CLINICAL INDICATORS: The suspect had six clues of HGN and a Lack of Convergence. Her pulse and blood pressure were above the normal ranges.

9. SIGNS OF INGESTION: The suspect had a red, runny nose. Her eyes were bloodshot and watery. She also had a paint-like odor on her breath and clothing.

10. SUSPECT’S STATEMENTS: Suspect admitted drinking a “couple of wine coolers” but denied using any other substances.

11. DRE’S OPINION: In my opinion Mashburn is under the influence of an Inhalant and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a urine sample.

13. MISCELLANEOUS: Rev. 03/08
SESSION XX

PRACTICE: VITAL SIGNS EXAMINATIONS
SESSION XX  PRACTICE: VITAL SIGNS EXAMINATIONS

Upon successfully completing this session the student will be able to:

- Conduct examinations of pulse, blood pressure and temperature.
- Describe 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 your 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. You will record your measurements using the data collection sheet on the next page.

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:** ____________ / ____________ / ____________

## Pulse Measurements

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<th>Diastolic</th>
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## Blood Pressure Measurements

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**HS172A R01/10**

4
SESSION XXI

CANNABIS
Upon successfully completing this session the student 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.
- Describe the symptoms, observable signs and other effects associated with Cannabis.
- Describe the typical time parameters, i.e. onset and duration of effects associated with Cannabis.
- List the clues that are likely to emerge when the drug influence evaluation is conducted for a person under the influence of this drug category.
- 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 Delta-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 intraocular 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** is a form of cannabis made from the dried and pressed resin of a marijuana plant.
- **Hash oil** is sometimes referred to as “marijuana oil” it is a highly concentrated syrup-like oil extracted from marijuana. It is normally produced by soaking marijuana in a container of solvent, such as acetone or alcohol for several hours and after the solvent has evaporated, a thick syrup-like oil is produced with a THC content generally ranging from 10 to 12 percent.
- **Marinol** (also known as Dronabinol) is a synthetic form of THC that is not derived from Cannabis plants. Marinol is a prescription drug 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.
Potency, Purity and Dose

THC is the major psychoactive constituent of Cannabis. Potency is dependant on THC concentration and is usually expressed as percent THC per dry weight of material. Average THC concentration in marijuana is 1-5 percent, hashish 5-15 percent, and hash oil 10-12 percent.

The form of marijuana known as Sinsemilla is derived from the unpollenated female cannabis plant and is preferred for its high THC content (ranging from 15 percent and higher). Recreational doses are highly variable. A single intake of smoke from a pipe or joint is called a hit (approximately 1/20th of a gram). The lower the potency or THC content the more hits are needed to achieve the desired effects; 1-3 hits of high potency Sinsemilla is typically enough to produce the desired effects. In terms of its psychoactive effect, a drop or two of hash oil on a cigarette is equal to a single “joint” of marijuana. Medically, the initial starting dose of Marinol is 2.5 mg, twice daily.

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 interferes with a person's ability or willingness to divide attention. 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.

Pharmacological effects of marijuana vary with dose, route of administration, experience of user, vulnerability to psychoactive effects, and setting of use. At recreational doses, effects may include relaxation, euphoria, relaxed inhibitions, sense of well-being, disorientation, altered time and distance perception, lack of concentration, impaired learning and memory, alterations in thought formation and expression, drowsiness, sedation, mood changes such as panic reactions and paranoia, and a more vivid sense of taste, sight, smell, and hearing. Stronger doses intensify reactions and may cause fluctuating emotions, flights or fragmentary thoughts with disturbed associations, a dulling of attention despite an illusion of heightened insight, image distortion, and psychosis.
Other characteristic indicators may include an odor of marijuana in the subject's vehicle or on the subject's breath, marijuana debris in the mouth, green coating on the subject's tongue, and reddening of the conjunctiva.

Because Cannabis impairs attention, divided attention tests 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. It can take as long as 4 hours for THC to appear in the urine at concentrations sufficient to trigger an immunoassay (50 ng/mL) following smoking. 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)
- possible birth defects, still births and infant deaths
- acute anxiety attacks
- chronic reduction of attention span

E. Expected Results of the Evaluation

When a person under the influence of Cannabis is evaluated by a DRE, the following results can generally be expected:

**Horizontal Gaze Nystagmus** - none

**Vertical Gaze Nystagmus** - none

**Lack of Convergence** - present

**Pupil size** - dilated, but possibly normal. Rebound dilation may be observed.

**Reaction to light** - normal

**Pulse rate** - up

**Blood Pressure** - up

**Temperature** - normal

**Muscle tone** - normal

**Injection sites** usually will not be found.
General Indicators:

- body tremors
- disorientated
- debris in mouth (possible)
- eyelid tremors
- impaired perception of time and distance
- increased appetite
- marked reddening of the conjunctiva
- odor of marijuana
- possible paranoia
- relaxed inhibitions
Topics for Study

1. What is the active ingredient in Cannabis?

2. Why is 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?

4. What is Sinsemilla?

5. Name two important metabolites of THC, and describe how they affect the duration and perception of the effects of Cannabis.
**DRUG INFLUENCE EVALUATION**

**Evaluator:**
- Constable John Bercic, Vancouver PD
- Date: 07-11-04

**To Be Completed by:**
- Name: Kenneth Clark
- Date of Birth: 05/24/84
- Rank: M
- Branch: W

**Date Examined / Time / Location:**
- 11/05/07 2220 Vancouver PD

**Present Results:**
- Chemical Results: Urine
- Medical Results: Test Refused

**History:**
- Given the Drug: Yes
- Couple of hot dogs: 5 PM
- Time of test drink: N/A

**Recent Use:**
- Last Night: 6 hrs.
- Last Time: 11:00 pm

**Questions:**
- Are you drunk or stoned? No
- Do you feel too high? No
- Do you feel too high? No
- Do you feel too high? No

**Condition:**
- Unsteady, relaxed
- Boisterous, cooperative

**Pupils:**
- Size: Equal
- Reaction: Normal
- Equal (surgical)

**Pupil and Time:**

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<th>Time</th>
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<th>Right Eye</th>
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**Pupils and Time:**
- 43 estimated as 30 seconds

**Rosenberg Balance Test:**
- Walk and Turn Test: Cannot turn balance
- Maximum Deviation: N/A
- Angle of Osm.: None

**Circumferential Test:**
- None
- None

**Laughter during Test:**
- 1st Laugh: N/A
- 2nd Laugh: N/A

**Nystagmus:**
- Able to follow: N/A
- Yes: No

**Convergence:**
- 26/30

**Type of Footwear:**
- None

**Pupil Size:**

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<th>Room Light</th>
<th>Darkness 5.0 – 8.5</th>
<th>Street 2.0 – 4.5</th>
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<tr>
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<td>9.0</td>
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<tr>
<td>Right Eye</td>
<td>5.5</td>
<td>9.0</td>
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**Rebound Dilation:**
- Yes: No

**Reaction to Light:**
- Normal

**Medication:**
- None
- None

**What are you doing right now?**
- I told you, I don’t do drugs.

**Officer’s Signature:**
- DRE # 4651
- Reviewed/approved by:
- Date:

**Opinion of Evaluator:**
- Yes
- No
- Alcohol
- Opiates
- Sedative
- Hallucinogen
- Narcotic Analgesic
- Psychotic

**Subject:**
- 2200
- No

**Analysis:**
- Normal

**Footwear:**
- Betics

**Blood Pressure:**
- 154/106

**Temperature:**
- 98.6
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Clark, Kenneth A.

1. **LOCATION:** The evaluation was conducted at the Vancouver Police Department.

2. **WITNESSES:** Sgt. Paul Milne of the New Westminster Police Services.

3. **BREATH ALCOHOL TEST:** Clark’s breath test was a 0.00%.

4. **NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER:** Writer was contacted by radio and advised to meet Constable Ferguson at the Vancouver Police Department for a drug evaluation. Constable Ferguson advised he stopped Clark after observing him exit Highway 1A at a high rate of speed then fail to stop at a stop sign. The suspect seemed unconcerned about his driving and told Ferguson that he was “just having some fun.” After performing poorly on the SFST’s, Clark was arrested for DUI.

5. **INITIAL OBSERVATION OF SUSPECT:** Writer first observed the suspect in the interview room at V.P.D. He was laughing a lot and several times said, “This machine says I’m not drunk” He was having problems with his coordination and several times he bumped into the interview table. He had a noticeable reddening of the conjunctiva.

6. **MEDICAL PROBLEMS AND TREATMENT:** None noted or stated.

7. **PSYCHOPHYSICAL TESTS:** Romberg Balance: Suspect had a circular sway of approximately 3” and estimated 30 seconds in 43 seconds. Walk & Turn: Suspect lost his balance twice during the instructions stage, missed heel to toe three times on the first nine steps. On the return nine steps he missed heel-to-toe four times and began laughing. He also used his arms for balance. One Leg Stand: Suspect put his foot down three times while standing on the left foot and twice while standing on the right foot. He also used his arms for balance on both and laughed while completing the test. Finger to Nose: The suspect missed the tip of his nose on four of the attempts and laughed while completing the test.

8. **CLINICAL INDICATORS:** Suspect had a Lack of Convergence and Rebound Dilation. His pupils were dilated and his pulse and blood pressure were above the normal ranges.

9. **SIGNS OF INGESTION:** The suspect had an odor of marijuana on his breath and clothes.

10. **SUSPECT’S STATEMENTS:** Suspect stated, “I smoke pot. What’s the big deal?”

11. **DRE’S OPINION:** In my opinion Clark is under the influence of a Cannabis and unable to operate a vehicle safely.

12. **TOXICOLOGICAL SAMPLE:** The suspect provided a blood sample.

13. **MISCELLANEOUS:**
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Peltier, Charles E.

1. LOCATION: The evaluation was conducted in the interview room at the Linn County Jail.

2. WITNESSES: The evaluation was witnessed and recorded by Senior Trooper Mike Iwai of the Oregon State Police.

3. BREATH ALCOHOL TEST: Peltier’s breath test was a 0.04%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was dispatched to contact Sr. Trooper Webster at the Linn County Jail for a drug evaluation. Senior Trooper Webster advised he had arrested Peltier for DUI after he attempted to elude officers on I-5 south of Salem. The suspect was detained with the use of spike strips. The suspect was disoriented and had poor balance and coordination. After performing poorly on the SFST’s, he was arrested for DUI.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the interview room at the jail. He seemed impatient and anxious. He had poor coordination and balance and his speech was slow and slurred.

6. MEDICAL PROBLEMS AND TREATMENT: None noted or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect had an approximate 3” circular sway and estimated 30 seconds in 35 seconds. Walk & Turn: Suspect lost his balance during the instructions stage, missed heel to toe three times on the first nine steps and twice on the second nine steps. He stopped twice while walking and raised his arms for balance. One Leg Stand: Suspect swayed while balancing, used his arms for balance, put his foot down once, hopped once and had leg tremors. Finger to Nose: Suspect missed the tip of his nose on four of the six attempts and exhibited eyelid tremors.

8. CLINICAL INDICATORS: Suspect had a Lack of Convergence. His pupils were dilated in room light and direct light. His pulse and blood pressure were above the normal ranges.

9. SIGNS OF INGESTION: The suspect had a brownish coloration on his tongue.

10. SUSPECT’S STATEMENTS: Suspect admitted drinking “two beers” and laughed when asked about smoking marijuana.

11. DRE'S OPINION: In my opinion Peltier is under the influence of ETOH (Alcohol) and Cannabis and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a urine sample.

13. MISCELLANEOUS:

Rev. 03/08
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Wright, James B.

1. LOCATION: The evaluation was conducted at the West Precinct of the Seattle P.D.


3. BREATH ALCOHOL TEST: Wright's breath test was a 0.00%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was on duty at the West Precinct when contacted by Officer Jon Huber requesting a drug evaluation. Officer Huber advised he arrested Wright after his vehicle struck another vehicle on Highway 99 north of Seattle. There was an odor of marijuana coming from the suspect’s vehicle. He had poor balance and coordination and was unable to perform the SFST's as directed. A small pipe containing marijuana residue was located in the suspect’s vehicle.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the interview room at the jail. He was very relaxed and carefree acting. He had poor coordination and balance and his speech was slow and deliberate.

6. MEDICAL PROBLEMS AND TREATMENT: None noted or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect had an approximate 2" circular sway and estimated 30 seconds in 38 seconds. Walk & Turn: Suspect lost his balance during the instructions stage, started walking too soon, raised his arms for balance and failed to touch heel to toe five times on the first nine steps and on all his steps during the second nine steps. One Leg Stand: Suspect swayed while balancing, used his arms for balance and put his foot down twice while standing on the left foot and once while standing on the right foot. Finger to Nose: Suspect missed the tip of his nose on three of the six attempts and exhibited eyelid tremors.

8. CLINICAL INDICATORS: Suspect had a lack of convergence. His pupils were dilated in room light and direct light. He also had rebound dilation. His pulse and blood pressure were above the normal ranges.

9. SIGNS OF INGESTION: The suspect had a green coating on his tongue.

10. SUSPECT’S STATEMENTS: Suspect denied using drugs.

11. DRE’S OPINION: In my opinion Wright is under the influence of Cannabis and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a blood sample.

13. MISCELLANEOUS: The suspect was also charged with possession of marijuana.

Rev. 03/08
SESSION XXII

OVERVIEW OF SIGNS AND SYMPTOMS
SESSION XXII  
OVERVIEW OF SIGNS AND SYMPTOMS

Upon successfully completing this session the student will be able to:

- Describe the possible effects that may be observed in each major indicator of drug impairment.
- Identify the effects that will most likely be observed with subjects 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 nine items:

- Horizontal Gaze Nystagmus
- Vertical Gaze Nystagmus
- Lack of Convergence
- Pupil Size
- Reaction to Light
- Pulse Rate
- Blood Pressure
- Body Temperature
- Muscle Tone

As a DRE, you will evaluate each of these indicators for every subject 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 subject for Horizontal Gaze Nystagmus? What are the possible things that you may observe when you check the subject'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 cause 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 blood pressure may be normal.
What about the other seven major indicators? What are the possible things we may find with each of them? **Before you answer**, try to complete the list of possibilities we've started on the following chart:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Possible Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal Gaze Nystagmus?</td>
<td>PRESENT or NONE</td>
</tr>
<tr>
<td>Vertical Gaze Nystagmus?</td>
<td>PRESENT or NONE</td>
</tr>
<tr>
<td>Lack of Convergence?</td>
<td>PRESENT or NONE</td>
</tr>
<tr>
<td>Pupil Size?</td>
<td>DILATED or NORMAL or CONSTRICTEDE</td>
</tr>
<tr>
<td>Reaction to Light?</td>
<td>NORMAL, SLOW, or LITTLE TO NONE VISIBLE</td>
</tr>
<tr>
<td>Pulse Rate?</td>
<td>UP or DOWN or NORMAL</td>
</tr>
<tr>
<td>Blood Pressure?</td>
<td>UP or DOWN or NORMAL</td>
</tr>
<tr>
<td>Body Temperature?</td>
<td>UP, DOWN, or NORMAL</td>
</tr>
<tr>
<td>Muscle Tone?</td>
<td>FLACCID, RIGID OR NORMAL</td>
</tr>
</tbody>
</table>

How did you do? Your completed list, on the previous page, should look something like this:

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 on the next page, we've listed what we can usually expect to see in subjects 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 SUBJECTS?

<table>
<thead>
<tr>
<th></th>
<th>Depressants</th>
<th>Stims</th>
<th>Halluc</th>
<th>D/A</th>
<th>Narc</th>
<th>Inhalant</th>
<th>Cannabis</th>
</tr>
</thead>
<tbody>
<tr>
<td>HGN</td>
<td>Present</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VGN <em>(high dose)</em></td>
<td>Present</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack Conv</td>
<td>Present</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pupil Size</td>
<td>Normal (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>React Light</td>
<td>Slow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse Rate</td>
<td>Down (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood Press</td>
<td>Down</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body Temp</td>
<td>Normal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muscle Tone</td>
<td>Flaccid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* high dose for that individual

1. Soma, Quaaludes and some anti-depressants usually dilate pupils
2. Quaaludes, ETOH and some anti-depressants may elevate
3. Certain psychedelic amphetamines may cause slowing
4. Normal, but may be dilated
5. Down with anesthetic gases, up with volatile solvents and aerosols
6. Pupil size possibly normal

The following 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
- disoriented
- thick slurred speech
- uncoordinated
- sluggish
- drunk-like appearance

- Nystagmus
- Strabismus
- difficulty in visual accommodation
- vertigo
- positive Romberg sign
- Hypotonia
- Dysmetria
- Diplopia
- sluggishness
- difficulty in thinking
- slowness, slurring of speech
- poor comprehension
- poor memory
- faulty judgement
- emotional lability


Drug Abuse and Dependence, Grinspoon, Lester, M.D; 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

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
- unsteady gait
- incoordination
- impairment in attention or memory

**CNS STIMULANTS**:

DRE Symptomatology:
- dilated pupils
- increased temperature
- body tremors
- excited
- talkative
- anxiety
- redness to nasal area
- loss of appetite
- increased alertness

- increased pulse rate
- increased blood pressure
- restlessness
- euphoric
- exaggerated reflexes
- grinding teeth
- runny nose
- insomnia

The Pharmacological Basis of Therapeutics, Seventh Edition,


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
- restlessness
- irritability
- tremor
- Diaphoresis
- nausea
- pallor

- hyperreflexia
- talkativeness
- insomnia
- flushing
- combativeness
- vomiting
- dry mucous membranes

Moderate:
- hyperactivity
- hypertension
- Tachycardia
- chest discomfort
- abdominal pain
- mild temperature elevation

- confusion
- Tachypnea
- premature ventricular contraction
- vomiting
- Profuser Diaphoresis
- impulsivity
- hallucinations
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

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

Amphetamines:

- Dilation of pupils
- Increase heart rate
- Blood pressure
- Flushing
- Teeth grinding
- Dry mouth
- Tremors
- Lack of coordination

Cocaine and Amphetamine:

- Dilated pupils
- Increased pulse
- Increased blood pressure
- Vasoconstriction
- Increased temperature

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

Cocaine:

- Dilated pupils
- Tachycardia
- Increased blood pressure
- Vasoconstriction
- Hyperpyrexia

Amphetamines:

- Increased pulse
- Possibly increased temperature
- General increase in psychomotor activity
- Increased blood pressure
- Increased wakefulness
Cocaine
Mydriasis (dilated pupils); may cause psychosis
euphoria agitation


COCAINEx
Maladaptive behavioral changes, e.g., euphoria, fighting, grandiosity, hyper-vigilance, psychomotor agitation, impaired judgment, impaired social or occupational functioning.
	pupillary dilation
	elevated blood pressure

AMPHETAMINE:
Maladaptive behavioral changes, e.g., fighting, grandiosity, hyper-vigilance, psychomotor agitation, impaired judgment, impaired social or occupational functioning.
	pupillary dilation
	elevated blood pressure

HALLUCINOGENS:
DRE Symptomatology:
dilated pupils increased pulse rate
increased blood pressure increased temperature
dazed appearance body tremors
Synesthesia hallucinations
paranoia uncoordinated
nausea disoriented
difficulty in speech perspiring
poor perception of time/distance


pupillary dilation increased blood pressure
Tachycardia Hyperreflexia

tremor nausea

Piloerection muscular weakness
Increased body temperature hallucinations
Hyper vigilance 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


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 awareness
- sensory input
- flushed face
- increased blood pressure
- faltered body images
- fine tremor
- increased body temperature


- dilated pupils
- increased blood pressure
- profuse perspiration
- hallucinations
- increased heart rate
- increased temperature
- loss of appetite
- high blood pressure
- incoordination

Drug Abuse and Dependence, Grinspoon, Lester,MD; Bakalar, James, 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
- Hyperreflexia
- Tachycardia
- high blood pressure
- incoordination


- 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
- sweating
- blurring of vision
- incoordination

Tachycardia
palpitations
tremors

**Dissociative Anesthetics (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


- 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

- increased blood pressure
- disinhibition
- muscle rigidity
- delirium excitement
- hallucinations
- speech difficulty
- 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
- fever convulsions
- muscle rigidity
- increased blood pressure


- Nystagmus
- increased pulse rate
- mood swings
- changes in body awareness
- violent behavior

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
- Nystagmus
- loss of muscle control
- memory loss drooling

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
- hallucination
- loss of motor control
- automated speech
- Nystagmus at rest
Ataxia
tremors
muscular hypertonicity
Hyperreflexia
Ptosis
Tachycardia
Horizontal Gaze, Vertical Gaze
and Rotary Nystagmus
elevated blood pressure
mood swings

Maladaptive behavioral changes, e.g., belligerence, assaultiveness, impulsiveness, unpredictability, psychomotor agitation, impaired judgment, impaired social or occupational functioning.

Vertical or Horizontal Gaze 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 pulse rate
decreased blood pressure
decreased temperature
Ptosis (droopy eyelids)
"on the nod"
drowsiness
depressed reflexes
low, raspy speech
dry mouth
facial itching
euphoria
fresh puncture marks


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.

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)


- constricted pupils
- Analgesia
- euphoria
- reduced heart rate
- depressed appetite
- going "on the nod"

Drug Abuse and Dependence, Grinspoon, Lester, M.D; 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)
- Bradycardia
- Hypothermia
- (decreased heart beat)
- decreased temperature)
- euphoria/dysphoria
- drowsiness lethargy
- confusion
- flaccid muscle tone
- depressed respiration
- Analgesia


- Miosis (constricted pupils)
- low blood pressure
- itching
- flushing sweating
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


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


- 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
- mental dulling
- tremors cerebellar
- Ataxia
- rambling speech
- irritability
- light headedness
- tremors
- CNS depression that mimics Ataxia
- Narcotic Analgesics
- blank stare
- euphoric mood

15
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 dizziness
incoordination slurred speech
unsteady gait lethargy
depressed reflexes psychomotor retardation
tremor generalized muscle blurred vision or diplopia
stupor or coma weakness
euphoria

**CANNABIS:**

DRE Symptomatology:
dilated pupils marked reddening of conjunctivae
odor of Marijuana debris in mouth
body tremors eyelid tremors
relaxed inhibitions increased appetite
paranoia disorientation
impaired perception of time and distance

euphoria short term memory impairment
temporal disintegration balance and stance impairment
information processing impairment increased hunger
dry mouth additive to alcohol

Lower doses affect perception, impairing well beyond when subject subjectively feels effects; alters all information processing; relatively simple motor skills unaffected.
High doses:

- anxiety
- increased heart rate
- marked reddening of Conjunctiva

hallucinations
increased systolic blood pressure
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

<table>
<thead>
<tr>
<th>Effect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>reddening of Conjunctiva</td>
<td>alteration in mood</td>
</tr>
<tr>
<td>motor coordination impairment</td>
<td>euphoria</td>
</tr>
<tr>
<td>relaxation</td>
<td>sleepiness</td>
</tr>
<tr>
<td>temporal distortion</td>
<td>decrease in balance, steadiness and muscle strength</td>
</tr>
<tr>
<td>(time slows)</td>
<td></td>
</tr>
<tr>
<td>impairment of motor tasks and reaction times</td>
<td>requires higher dosages</td>
</tr>
<tr>
<td>loss of short term memory</td>
<td>elective attention</td>
</tr>
<tr>
<td>systematic thinking impaired</td>
<td>stimulated appetite</td>
</tr>
<tr>
<td>dry mouth</td>
<td></td>
</tr>
</tbody>
</table>


- 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:

<table>
<thead>
<tr>
<th>Effect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>red Conjunctiva</td>
<td>euphoria</td>
</tr>
<tr>
<td>relaxation</td>
<td>dry mouth</td>
</tr>
<tr>
<td>increased heart rate</td>
<td>possibly Nystagmus</td>
</tr>
<tr>
<td>time distortion</td>
<td>short term memory</td>
</tr>
<tr>
<td>impairment in ability to do multi-step tasks</td>
<td>tremors</td>
</tr>
<tr>
<td>decrease level of motor coordination</td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Effect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>red eye</td>
<td>increased appetite</td>
</tr>
<tr>
<td>increased heart beat</td>
<td>time and space distortions</td>
</tr>
<tr>
<td>dryness of mouth and throat</td>
<td>increased heart rate</td>
</tr>
<tr>
<td>increased pulse rate</td>
<td>lack of coordination</td>
</tr>
</tbody>
</table>
Drug Abuse and Dependence, Grinspoon, Lester, M.D; 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)


- 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


- Maladaptive behavioral changes, e.g., euphoria anxiety, suspiciousness, or paranoid ideation, sensation of slowed time, in d judgment, social withdrawal.

- red Conjunctiva
- Tachycardia (rapid heart)
- increased appetite
- dry mouth

Lack of Convergence:


SESSION XXIII

CURRICULUM VITAE PREPARATION AND MAINTENANCE
SESSION XXIII  CURRICULUM VITAE PREPARATION AND MAINTENANCE

Upon successfully completing this session the student will be able to:

o Describe and discuss the purpose of the DRE Curriculum Vitae.

o Identify the elements of a DRE Curriculum Vitae.

o Prepare a basic Curriculum Vitae summarizing relevant training, education, experience and accomplishments to date.

o Update and extend the Curriculum Vitae, as relevant achievements continue to expand.
A. Purpose of the Curriculum Vitae

The principal purpose of the Curriculum Vitae (C.V.) is to help establish your qualifications for testifying in court as a drug recognition expert. The C.V. 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 an 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 an "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 an expert. If the court rules that the witness is an 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. Generally a witness' qualification is achieved through “Voir Dire” which is a French expression literally meaning “to see, to say” or in English “to seek the truth”. Voir Dire is normally done outside the presence of the jury.

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. Your C.V. 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 recognition 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. Curriculum Vitae 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. Assignments.
      List agencies, dates, and specialized assignments related to impaired driving, drug enforcement, etc.
   c. Prior law enforcement experience.
   d. Other Job Related Experience.
      List employers, dates, specific duties, etc. Highlight work relevant to drugs.
   e. 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.
f. 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.

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 videos viewed; etc.

5. Training or research conducted.
   Document drug related training and research that you conducted or in which you participated.

6. Published works
   List all relevant writings that you authored or co-authored, including departmental briefing papers, training manuals/bulletins, magazine articles, books, etc.

D. Curriculum Vitae Examples

The remainder of this session presents two examples of a DRE Curriculum Vitae. They are based on the training and experience of actual drug recognition experts, although specific identifiers have been changed to preserve their anonymity.
SAMPLE CURRICULUM VITAE NUMBER ONE

SHELTON POLICE DEPARTMENT

Traffic Division

The Curriculum Vitae of:

SERGEANT DAVID CARROLL REGAN
Drug Recognition Expert

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
Sgt. David C. Regan

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  NHTSA/IACP
DRE Instructor Training
(Certified as a DRE Instructor on 11/12/XX)

8/XX  Drug Enforcement Administration
Drug Interdiction Seminar

11/YY  NHTSA/IACP
Drug Evaluation and Classification Training: DRE School
(Certified as a DRE on 1/28/XX)

10/YY  NHTSA/IACP
Drug Evaluation and Classification Training: DRE 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 J 22 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

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug and Alcohol Abuse</td>
<td>Marc A. Schuckit, M.D.</td>
</tr>
<tr>
<td>A Primer of Drug Action</td>
<td>Jerome Jaffee, Robert Petersen and Ray Hodgson</td>
</tr>
<tr>
<td>The Practitioner's Guide to Psychoactive Drugs</td>
<td>Ellen L. Bassuk, M.D. and Stephen C. Schoonover, M.D.</td>
</tr>
<tr>
<td>Drug Abuse: A Manual for Law Enforcement Officers</td>
<td>Smith, Kline &amp; French (pub.)</td>
</tr>
<tr>
<td>Licit and Illicit Drugs</td>
<td>Edward M. Brecher</td>
</tr>
<tr>
<td>Chocolate to Morphine</td>
<td>Andrew Weil, M.D. and Winifred Rosen</td>
</tr>
<tr>
<td>Cocaine Addiction</td>
<td>U.S. Department of Health and Human Services</td>
</tr>
<tr>
<td>Marijuana Alert</td>
<td>Peggy Mann</td>
</tr>
</tbody>
</table>
SAMPLE CURRICULUM VITAE NUMBER TWO

TRUMBULL POLICE DEPARTMENT

The Curriculum Vitae of:

OFFICER ANN MARIE REED
Drug Recognition Expert

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 J D 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  NHTSA/IACP
Drug Evaluation and Classification Training: DRE School
(Certified as a DRE on 5/22/VV)
Officer Ann M. Reed

Special Police Training (Continued)

2/VV Fairfield County Regional Police Academy

Drug Evaluation and Classification Training: DRE Pre-School

10/WW Fairfield County Regional Police Academy

Standardized Field Sobriety Testing

Publications Authored


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

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signs and Symptoms Handbook</td>
<td>Barbara McVan, M.D.</td>
</tr>
<tr>
<td>Drugs From A to Z</td>
<td>Richard R. Lingeman</td>
</tr>
<tr>
<td>Guide to Psychoactive Drugs</td>
<td>Richard Seymour and David E. Smith, M.D.</td>
</tr>
<tr>
<td>Addictions: Issues and Answers</td>
<td>Robert M. Julien, M.D.</td>
</tr>
<tr>
<td>Report on Synthetic China White: Fentanyl</td>
<td>Det. James Miller, LAPD</td>
</tr>
</tbody>
</table>
SESSION XXIV

DRUG COMBINATIONS
SESSION XXIV    DRUG COMBINATIONS

Upon successfully completing this session the student will be able to:

o Explain the prevalence of polydrug use among drug impaired subjects and identify common combinations of drugs abused by those subjects.

o Describe the possible effects that combinations of drugs can produce on the major indicators of drug impairment.

o Define the terms "Null", "Overlapping", "Additive" and "Antagonistic" as they relate to polydrug effects.

o Identify the specific effects that are most likely to be observed in persons under the influence of particular drug combinations.
A. The Prevalence 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 subject's who were evaluated were found to have two or more drugs in their blood samples. 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 subject's 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.

Polydrug use among suspected drug impaired drivers continues to be very common. Data collected from DREs from throughout the U.S. and entered into the national DRE tracking database indicates that approximately 25% of all cases where toxicology was conducted resulted in two or more drug categories detected.

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. Possible Effects of Drug Combinations

When a person ingests two or more different drugs, 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 or more 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 subject is to check for HGN. We know that many drugs do not affect nystagmus. For instance, if we examined a subject that was under the influence of a CNS Stimulant and nothing else, we would not expect to observe nystagmus. Likewise, if we examined someone who was under the influence of Cannabis 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 a CNS Stimulant 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 subject who was under the influence of a Dissociative Anesthetic and a CNS Depressant. Dissociative Anesthetics generally do not affect pupil size; neither does 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 a CNS Stimulant 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 subject's eyes for a Lack of Convergence? Cannabis does produce a Lack of Convergence, a CNS Stimulant doesn't. Therefore, the subject who is under the combined influence of Cannabis and a CNS Stimulant 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 a Dissociative Anesthetic in combination with a Narcotic Analgesic. A Dissociative Anesthetic doesn't have any effect on pupil size. Narcotic Analgesics cause 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 a CNS Stimulant and Cannabis. What will we find when we check this subject's pulse rate? Cannabis produces Tachycardia, so does a CNS Stimulant. 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 additive.

The simplest way to express the Additive Effect is to say "something plus the same something produces that same something". 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 a CNS Stimulant, 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 a Narcotic Analgesic and a CNS Stimulant; what are we likely to find?

The fact is, we're likely to find just about anything at all. The Narcotic Analgesic, independently, tends to produce hypotension, the CNS Stimulant, independently, usually produces hypertension. The two drugs may offset each other, as far as blood pressure is concerned, and the subject's blood pressure may wind up normal. On the other hand, if the CNS Stimulant effects are starting to wear off and the Narcotic Analgesic is still active in the subject's body, we might find the blood pressure down. Conversely, if the CNS Stimulant is active but the Narcotic Analgesic 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. Identifying Expected Indicators of Specific Combinations

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

<table>
<thead>
<tr>
<th></th>
<th>CNS Depressants</th>
<th>CNS Stimulants</th>
<th>Hallucinogens</th>
<th>Dissociative Anesthetics</th>
<th>Narcotic Analgesics</th>
<th>Inhalants</th>
<th>Cannabis</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHN</td>
<td>Present</td>
<td>None</td>
<td>None</td>
<td>Present</td>
<td>None</td>
<td>Present</td>
<td>None</td>
</tr>
<tr>
<td>VGN</td>
<td>Present (High Dose)</td>
<td>None</td>
<td>None</td>
<td>Present</td>
<td>None</td>
<td>Present (High Dose)</td>
<td>None</td>
</tr>
<tr>
<td>Lack of Convergence</td>
<td>Present</td>
<td>None</td>
<td>None</td>
<td>Present</td>
<td>None</td>
<td>Present</td>
<td>Present</td>
</tr>
<tr>
<td>Pupil Size</td>
<td>Normal (1)</td>
<td>Dilated</td>
<td>Dilated</td>
<td>Normal</td>
<td>Constricted</td>
<td>Normal (4)</td>
<td>Dilated (6)</td>
</tr>
<tr>
<td>Reaction to Light</td>
<td>Slow</td>
<td>Slow</td>
<td>Normal (3)</td>
<td>Normal</td>
<td>Little to None Visible</td>
<td>Slow</td>
<td>Normal</td>
</tr>
<tr>
<td>Pulse Rate</td>
<td>Down (2)</td>
<td>Up</td>
<td>Up</td>
<td>Up</td>
<td>Down</td>
<td>Up</td>
<td>Up</td>
</tr>
<tr>
<td>Blood Pressure</td>
<td>Down</td>
<td>Up</td>
<td>Up</td>
<td>Up</td>
<td>Down</td>
<td>Up/Down (5)</td>
<td>Up</td>
</tr>
<tr>
<td>Body Temperature</td>
<td>Normal</td>
<td>Up</td>
<td>Up</td>
<td>Up</td>
<td>Down</td>
<td>Up/Down/Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>Muscle Tone</td>
<td>Flaccid</td>
<td>Rigid</td>
<td>Rigid</td>
<td>Rigid</td>
<td>Flaccid</td>
<td>Normal or Flaccid</td>
<td>Normal</td>
</tr>
</tbody>
</table>

**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.* Tramadol and some anti-depressants usually dilate pupils.
2. Quinuclidines, ETOH and some anti-depressants may elevate.
3. Certain psychedelic amphetamines may cause slowing.
4. Normal, but may be dilated.
5. Down with anesthetic gases, up with volatile solvents and aerosols.
6. Pupil size possibly normal.
<table>
<thead>
<tr>
<th>MAJOR INDICATORS</th>
<th>CNS DEPRESSANTS</th>
<th>CNS STIMULANTS</th>
<th>HALLUCINOGENS</th>
<th>DISSOCIATIVE ANESTHETICS</th>
<th>NARCOTIC ANALGESICS</th>
<th>INHALANTS</th>
<th>CANNABIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL INDICATORS</td>
<td>Disoriented</td>
<td>Droopy eyes (Pupil)</td>
<td>Drowsiness</td>
<td>Drink-like behavior</td>
<td>Guilt ataxia</td>
<td>Slow, sluggish reactions</td>
<td>Thick, slurred speech</td>
</tr>
<tr>
<td><strong>NOTE:</strong> With Methaqualone, pulse will be elevated and body tremors will be evident. Alcohol and Quanadules elevate pulse. Soma and Quanadules dilate pupils.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS TREMORS</td>
<td>Anxiety</td>
<td>Body tremors</td>
<td>Dazed appearance</td>
<td>Difficulty w/speech</td>
<td>Drowsiness</td>
<td>Difficult w/speech</td>
<td>Disoriented</td>
</tr>
<tr>
<td><strong>NOTE:</strong> With LSD, pilocerection may be observed (goose bumps, hair standing on end)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Exaggerated reflexes</td>
<td>Excited</td>
<td>Eyelid tremors</td>
<td>Grinding teeth</td>
<td>(Bruxism)</td>
<td>Increased alertness</td>
<td>Insomnia</td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Exhilaration</td>
<td>Euphoria</td>
<td>Euphoria</td>
<td>Exhilaration</td>
<td>Euphoria</td>
<td>Exhilaration</td>
<td>Euphoria</td>
</tr>
<tr>
<td><strong>NOTE:</strong> With LSD, pilocerection may be observed (goose bumps, hair standing on end)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Blank stare</td>
<td>Confused</td>
<td>Chemical odor (PCP)</td>
<td>Cycle behavior (PCP)</td>
<td>Difficulty w/speech</td>
<td>Difficulty w/speech</td>
<td>Disoriented</td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Resistant</td>
<td>“Moon Walking” (PCP)</td>
<td>Noncommunicative</td>
<td>Perspiring (PCP)</td>
<td>Possibly violent (PCP)</td>
<td>Possibly violent (PCP)</td>
<td>Relaxed</td>
</tr>
<tr>
<td><strong>NOTE:</strong> Tolerant users exhibit relatively little psychomotor impairment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>PCP Onset: 1-5 minutes</td>
<td>Peak Effects: 15-30 minutes</td>
<td>Exhibits effects up to 4-6 hours</td>
<td>Dexam: Onset 15-30 min. Effects 3-4 hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Heroin: 4-6 hours</td>
<td>Methadone: Up to 24 hours</td>
<td>Others: Vary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>6-8 hours for most volatile solvents</td>
<td>Anesthetic gases and aerosols – very short duration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>2-3 hours – exhibit effects (Impairment may last up to 24 hours, without awareness effects)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Oral Insufflation (smoking)</td>
<td>Smoked Insufflation</td>
<td>Smoked Insufflation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Oral Insufflation (smoking)</td>
<td>Smoked Insufflation</td>
<td>Smoked Insufflation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Injected Smoked (PCP)</td>
<td>Oral Insufflation (PCP)</td>
<td>Oral Insufflation (PCP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Injected Smoked Insufflation</td>
<td>Oral Smoked Insufflation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Insufflation (smoking)</td>
<td>Smoked Oral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>(Historically, have been taken orally)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Oral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Shallow breathing</td>
<td>Cold, clammy skin</td>
<td>Pupils dilated</td>
<td>Rapid, weak pulse</td>
<td>Coma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Shallow breathing</td>
<td>Agitation</td>
<td>Increased body temperature</td>
<td>Hallucinations</td>
<td>Coma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Long intense “trip”</td>
<td>Long intense “trip”</td>
<td>Slow, shallow breathing</td>
<td>Clammy skin</td>
<td>Coma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Coma</td>
<td>Corneals</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Coma</td>
<td></td>
<td></td>
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<tr>
<td>CNS STIMULANTS</td>
<td>Fatigue</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CNS STIMULANTS</td>
<td>Paranoia</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
D. Specific Examples of Drug Combinations: An Exercise for the Student

On the final five pages of this session, you will find examples of specific drug combinations. The expected results for the first two of these combinations (Cannabis and Stimulants, and Dissociative Anesthetic and Narcotic Analgesic) have been worked out for you. Study those examples, then complete the work sheets for the three remaining combinations.
# Cannabis and CNS Stimulant in Combination

<table>
<thead>
<tr>
<th>IMPAIRMENT INDICATOR</th>
<th>EFFECT DUE TO CANNABIS</th>
<th>EFFECT DUE TO CNS STIMULANT</th>
<th>TYPE OF COMBINED EFFECT</th>
<th>WHAT WILL WE SEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal Gaze Nystagmus</td>
<td>None</td>
<td>None</td>
<td>NULL</td>
<td>None</td>
</tr>
<tr>
<td>Vertical Gaze Nystagmus</td>
<td>None</td>
<td>None</td>
<td>NULL</td>
<td>None</td>
</tr>
<tr>
<td>Lack of Conv.</td>
<td>Present</td>
<td>None</td>
<td>OVERLAPPING</td>
<td>Present</td>
</tr>
<tr>
<td>Pupil Size</td>
<td>Dilated or Normal</td>
<td>Dilated</td>
<td>OVERLAPPING OR ADDITIVE</td>
<td>Dilated</td>
</tr>
<tr>
<td>Reaction to Light</td>
<td>Normal</td>
<td>Slow</td>
<td>OVERLAPPING</td>
<td>Slow</td>
</tr>
<tr>
<td>Pulse Rate</td>
<td>Up</td>
<td>Up</td>
<td>ADDITIVE</td>
<td>Up</td>
</tr>
<tr>
<td>Blood Pressure</td>
<td>Up</td>
<td>Up</td>
<td>ADDITIVE</td>
<td>Up</td>
</tr>
<tr>
<td>Body Temp</td>
<td>Normal</td>
<td>Up</td>
<td>OVERLAPPING</td>
<td>Up</td>
</tr>
<tr>
<td>Muscle Tone</td>
<td>Normal</td>
<td>Rigid</td>
<td>OVERLAPPING</td>
<td>Rigid</td>
</tr>
</tbody>
</table>
DISSOCIATIVE ANESTHETIC AND NARCOTIC ANALGESIC
IN COMBINATION

<table>
<thead>
<tr>
<th>IMPAIRMENT</th>
<th>EFFECT DUE TO PHENCYCLIDINE</th>
<th>EFFECT DUE TO HEROIN</th>
<th>TYPE OF COMBINED EFFECT</th>
<th>WHAT WILL WE SEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORIZONTAL GAZE</td>
<td>PRESENT</td>
<td>NONE</td>
<td>OVERLAPPING</td>
<td>PRESENT</td>
</tr>
<tr>
<td>NYSTAGMUS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VERTICAL GAZE</td>
<td>PRESENT</td>
<td>NONE</td>
<td>OVERLAPPING</td>
<td>PRESENT</td>
</tr>
<tr>
<td>NYSTAGMUS</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>LACK OF CONV.</td>
<td>PRESENT</td>
<td>NONE</td>
<td>OVERLAPPING</td>
<td>PRESENT</td>
</tr>
<tr>
<td>PUPIL SIZE</td>
<td>NORMAL</td>
<td>CONSTRICTED</td>
<td>OVERLAPPING</td>
<td>CONSTRICTED</td>
</tr>
<tr>
<td>REACTION TO LIGHT</td>
<td>NORMAL</td>
<td>LITTLE OR NONE VISIBLE</td>
<td>OVERLAPPING</td>
<td>LITTLE OR NONE VISIBLE</td>
</tr>
<tr>
<td>PULSE RATE</td>
<td>UP</td>
<td>DOWN</td>
<td>ANTAGONISTIC</td>
<td>DOWN/ NORMAL/UP</td>
</tr>
<tr>
<td>BLOOD PRESSURE</td>
<td>UP</td>
<td>DOWN</td>
<td>ANTAGONISTIC</td>
<td>DOWN/ NORMAL/UP</td>
</tr>
<tr>
<td>BODY TEMP</td>
<td>UP</td>
<td>DOWN</td>
<td>ANTAGONISTIC</td>
<td>DOWN/ NORMAL/UP</td>
</tr>
<tr>
<td>MUSCLE TONE</td>
<td>RIGID</td>
<td>FLACCID</td>
<td>ANTAGONISTIC</td>
<td>NORMAL/ RIGID/ FLACCID</td>
</tr>
</tbody>
</table>
## WORKSHEET #1
### KETAMINE AND LSD

<table>
<thead>
<tr>
<th>IMPAIRMENT INDICATOR</th>
<th>EFFECT DUE TO D/A</th>
<th>EFFECT DUE TO Hallucinogen (Hall)</th>
<th>TYPE OF COMBINED EFFECT*</th>
<th>WHAT WILL WE SEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal Gaze Nyctagmus</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Vertical Gaze Nyctagmus</td>
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</tr>
<tr>
<td>Lack of Conv.</td>
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<tr>
<td>Pupil Size</td>
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<tr>
<td>Reaction to Light</td>
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<td>Blood Pressure</td>
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<td>Body Temp</td>
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<tr>
<td>Muscle Tone</td>
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</tr>
</tbody>
</table>

*Null; Overlapping; Additive; or, Antagonistic
# Worksheet #2

## Cannabis and CNS Depressant Impairment

<table>
<thead>
<tr>
<th>Impairment Indicator</th>
<th>Effect Due to Cannabis</th>
<th>Effect Due to Depressant</th>
<th>Type of Combined Effect*</th>
<th>What Will We See</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal Gaze Nystagmus</td>
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<td></td>
<td></td>
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<tr>
<td>Vertical Gaze Nystagmus</td>
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</tr>
<tr>
<td>Lack of Conv.</td>
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<tr>
<td>Pupil Size</td>
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<tr>
<td>Reaction to Light</td>
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<td>Pulse Rate</td>
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<td>Blood Pressure</td>
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<tr>
<td>Muscle Tone</td>
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</tbody>
</table>

*Null; Overlapping; Additive; or, Antagonistic
# Worksheet #3

**CNS Stimulant and CNS Depressant Impairment Indicators**

<table>
<thead>
<tr>
<th>Impairment Indicator</th>
<th>Effect Due to CNS Stimulant</th>
<th>Effect Due to CNS Depressant</th>
<th>Type of Combined Effect*</th>
<th>What Will We See</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal Gaze Nyystagmus</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Vertical Gaze Nyystagmus</td>
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<tr>
<td>Lack of Conv.</td>
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<tr>
<td>Pupil Size</td>
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</tr>
<tr>
<td>Muscle Tone</td>
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</tbody>
</table>

*Null; Overlapping; Additive; or, Antagonistic
SESSION XXV

PRACTICE: TEST INTERPRETATION
SESSION XXV     PRACTICE: TEST INTERPRETATION

Upon successfully completing this session the student will be able to:

- Analyze the results of completed drug influence evaluations and identify the category or categories of drugs affecting the individual examined.
- Describe the basis for the drug category identification.
This session is similar to sessions XV and XVIII. You will once again review some drug influence evaluation "exemplars", consider all of the "evidence" they provide, and determine 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. Some exemplars might involve combinations of drug categories. Pay close attention to all of the information in these exemplars when making your determinations.
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Allen, Thomas E.

1. LOCATION: The evaluation was conducted in the interview room at the Dakota Co. Jail.

2. WITNESSES: Lt. Doug Thoof of the M.S.P. witnessed and recorded the evaluation.

3. BREATH ALCOHOL TEST: Allen’s breath test was 0.00%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was on duty when contacted by Tpr. Stanton requesting a drug evaluation. Writer met Tpr. Stanton at the Dakota County Jail where she advised that she had arrested Allen for DUI after observing his vehicle without headlights and driving 15 mph under the posted speed limit. The suspect seemed disoriented and had slow, unsteady movements. He had poor balance and coordination and was unable to perform the SFST’s as directed.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the interview room at the jail. He was seemed disinterested in what was going on around him. He had poor coordination and balance. His speech was slow and thick.

6. MEDICAL PROBLEMS AND TREATMENT: None noted or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect had an approximate 2” circular sway and estimated 30 seconds in 43 seconds. Walk & Turn: Suspect lost his balance during the instructions stage and raised his arms for balance. He stepped off the line twice, once during the first nine steps and once during the second nine steps. He also had lower body tremors when performing the test. One Leg Stand: Suspect swayed while balancing, used his arms for balance and put his foot down once while standing on his left foot and twice when standing on his right foot. Finger to Nose: Suspect missed the tip of his nose on four of the six attempts and exhibited eyelid tremors.

8. CLINICAL INDICATORS: Suspect had a lack of convergence and his pupils were dilated. His pulse was at the high end of normal. His B/P was above normal range.

9. SIGNS OF INGESTION: The suspect had a brownish-green coating on his tongue.

10. SUSPECT’S STATEMENTS: Suspect denied using drugs.

11. DRE’S OPINION: In my opinion Allen is under the influence of _______________ and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a blood sample.

13. MISCELLANEOUS: Suspect had eyelid and body tremors throughout the evaluation.

Rev. 03/08
**DRUG INFLUENCE EVALUATION**

**Evaluator:**

Officer Petrona Cummings, LAPD

**DRE #** 10176

**Rolling Log #** 07-08-15

**Session XXV - #2**

**Name:** Mike Delagiliao, LAPD

**Date of Arrest:** 08/21/07

**Location:** Parker Center

**Time of Arrest:** 2130

**Date Examined / Time / Location:** 08/21/07 2210

**Breath Results:**

- **Test Refused:** No
- **Chemical Test:** Urine
- **Blood:** No

** phạt Warning Given:** Yes

- **Given By:** Ofc. Pallares
- **Arresting Officer:** Officer Helen Pallares, LAPD #7785

**Case #:** 07-776810

**Reason:**

- **Crimes:** None
- **Fatal:** No
- **Injury:** No
- **Property:** No

**Date of Birth:** 4/6/77

**Sex:** M

**Race:** B

**Arresting Officer (Name, ID#):** Officer Helen Pallares, LAPD #7785

**Blood:** No

**No response:**

- **What have you eaten today?** Yes
- **When?** No response
- **What have you been drinking?** No response
- **How much?** No response
- **Time of last drink?** N/A

**Do you take insulin?** No

- **Do you have any physical defects?** No

**Are you taking any medication or drugs?** Yes

- **Answered “no” very slow**

**Speech:** Slow, repetitive at times

**Eye Odor:** Odor of marijuana

**Breath Odor:** Odor of marijuana

**Passive, non-responsive**

**Coordination:** Very poor, staggering

**Sweaty, blank stare**

**Corrective Lenses:** None

- **Contacts, if so**

**Blindness:**

- **None**

**Reddensed Conjunctiva:**

- **Normal**

**Bloodshot:**

- **Wattery**

**Trunk:**

- **Left**

**Right**

**Unequal:**

- **Equal**

**Unequal (explain):**

**Pupil Size:**

- **Right Eye:** Yes
- **Left Eye:** Yes

**Convergence:**

**Diplopia:**

- **Normal**

**Vertigo:**

**No**

**Unequal:**

**Drop**

**Cannot keep balance:**

**Steps number 1:**

- **First:**

- **Second:**

**Steps number 2:**

- **All:**

- **Stop:**

**Steps number 3:**

- **All:**

**Arms and legs rigid**

**Cannot do test (explain):**

**N/A**

**Type of footwear:**

- **Running shoes**

**Nasal area:**

- **Clear**

**Oval cavity:**

- **Green material in teeth**

**Reaction to light:**

- **Right Eye:**

- **Left Eye:**

**N/A**

**N/A**

**No**

**REACTION TO LIGHT:**

- **Normal**

**Blood pressure:**

- **148/102**

**Temperature:**

- **99.8**

**Rigid arms**

- **Nothing observed**

**Date / Time of arrest:**

- **08/21/07 2130**

**Time DRE was notified:**

- **2145**

**Evaluation start time:**

- **2210**

**Evaluation completion time:**

- **2305**

**Where were the drugs used?**

- **(blank space)**

**I’m not aware**

**Precise Station:**

**Date / Time:**

- **10/17/10**

**DR#:**

- **10176**

**Reviewed/approved by date:**

- **06/01**

**Opinion of Evaluator:**

- **Role Out**
- **Alcohol**
- **Medical**
- **CNS Stimming**
- **Dissociative Analgesic**
- **Inhalant**
- **Cannabis**

---

**Note:**

- **Revised: 6/01**
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Brown, Jerome A.

1. LOCATION: The evaluation was conducted in the interview room at Parker Center.

2. WITNESSES: Sgt. Mike Delgadillo of the LAPD DRE Unit witnessed the evaluation.

3. BREATH ALCOHOL TEST: Brown’s breath test was 0.00%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was contacted by telephone by Officer Pallares requesting a drug evaluation. Writer and Sgt. Delgadillo contacted Officer Pallares at Parker Center where it was determined that the suspect had nearly hit an officer working a sobriety checkpoint detail. The suspect was non-responsive when contacted. He had a blank stare and was sweating profusely. He performed very poorly on the SFST’s and was arrested for DUI.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the Parker Center interview room. He was looking straight ahead with a blank stare. When asked questions he responded slowly and at times did not respond at all. He was perspiring heavily and his speech was slow and thick. When he stood, he would stagger and nearly fell several times.

6. MEDICAL PROBLEMS AND TREATMENT: None noted or stated.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect had an approximate 3” side to side sway and estimated 30 seconds in 55 seconds. Walk & Turn: Suspect lost his balance during the instructions, stopped once while walking, missed heel to toe on every step and used his arms for balance. One Leg Stand: The suspect lost his balance while attempting this test and nearly fell and the test was stopped. He also swayed and used his arms for balance. Finger to Nose: Suspect missed the tip of his nose on each attempt and kept his finger in contact with his face on each attempt.

8. CLINICAL INDICATORS: Suspect had HGN, VGN, Lack of Convergence and Rebound Dilation. His pulse, blood pressure and temperature were above the normal ranges.

9. SIGNS OF INGESTION: Suspect had a marijuana odor on his breath and green vegetable material in his teeth.

10. SUSPECT’S STATEMENTS: Suspect denied using any medication or drugs.

11. DRE’S OPINION: In my opinion Brown is under the influence of a ________________ ________________ and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a urine sample.

13. MISCELLANEOUS: 

Rev. 03/08
**Drug Influence Evaluation**

**Evaluator:**
Officer Jon Gonzales, Los Alamos PD

**DRE #** 4184
**Rolling Log #** 07-05-010

**Session XXV - #3**

**Case # 07-05-74480**

**Arrestee’s Name:** Cole, Ricky Lee
**Date of Birth:** 6/4/88
**Race:** M

**Date / Time / Location:** 05-07-07, 0200 Albuequerque P.D.
**Breath Results:** 0.00

**Miranda Warning Given:** Yes
**What have you eaten today?** Yes
**What have you been drinking?** None
**How much?** None
**Time of last drink?** N/A

**Time now / Actual AM/PM:** 0200
**When did you last sleep?** 8-9 hours

**Are you sick or injured?** No
**Are you diabetic or epileptic?** No
**Do you take any medication or drugs?** Yes
**Are you under the care of a doctor or dentist?** No

**Attitude:** Withdrawn, passive
**Coordination:** Poor, stumbling

**Corrective Lenses:** None
**Glasses:** None
**Contact lenses:** None
**Hard:** Soft

**Pupil Size:** Equal
**Virginia Miosis:** Yes

**Bloodhound:** None
**Right:** Left

**Rancid Smell:**

**Romberg Balance:**

**Walk and Turn Test:**

**Swaying:**

**Blood Pressure:** 142/98
**Temperature:** 98.8

**Mucous Secretions:**

**Date / Time of arrest:** 05-07-07, 0130
**Time DRE was notified:** 0145
**Evaluation start time:** 0200
**Evaluation completion time:** 0250

**DRE #** 4184

**Opinion of Officer:**

**Opinion of Evaluator:**

**Preceding Station:**

**Rebound Dilation:**

**Reaction to Light:**

**Type of Footwear:**

**Nasal area:** Runny nose, paint smears on face

**Oral cavity:** Clear

**Review/Approve by Date:**

---

**Note:** The document contains a series of tests and observations related to drug influence evaluation, including breath tests, physical assessments, and cognitive tests. The results and observations are recorded in detail, indicating the officer's findings and the arrestee's responses to various stimuli.
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Cole, Ricky L.

1. **LOCATION:** The evaluation was conducted at the Albuquerque Police Department.

2. **WITNESSES:** Christine Frank of the Albuquerque Police Department.

3. **BREATH ALCOHOL TEST:** Cole's breath test was 0.00%.

4. **NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER:** Writer was on-duty and was contacted by Officer McCarson requesting a drug evaluation. Officer McCarson advised he detained the suspect after observing him fail to stop at a red traffic light at Central Ave. and University Blvd. The suspect's speech was slow and slurred. He had gold and silver paint on his hands and clothing. He performed poorly on the SFST's.

5. **INITIAL OBSERVATION OF SUSPECT:** Writer first observed the suspect in the interview room at A.P.D. He appeared passive and withdrawn. He had poor balance and coordination. He swayed as he stood and stumbled several times when walking. Gold and silver paint smears were visible on his hands, face and shirt.

6. **MEDICAL PROBLEMS AND TREATMENT:** None noted or stated.

7. **PSYCHOPHYSICAL TESTS:** Romberg Balance: The suspect swayed approximately 2” in a circular motion and estimated 30 seconds in 45 seconds. When asked how he estimated the 30 seconds the suspect stated, “Just guessed.” Walk & Turn: The suspect lost his balance twice during the instructions, stopped walking twice on the first nine steps and once on the second nine steps. He missed heel to toe seven times and stepped off the line twice. One Leg Stand: The suspect was unable to maintain his balance and the test was stopped for safety reasons. Finger to Nose: The suspect was unable to touch the tip of his nose on any of the six attempts, repeatedly opened his eyes and swayed noticeably.

8. **CLINICAL INDICATORS:** The suspect had HGN, Vertical Gaze Nystagmus and Lack of Convergence. His pulse and blood pressure were above the normal ranges.

9. **SIGNS OF INGESTION:** The suspect had a paint-like odor on his breath and paint smears on his hands and face.

10. **SUSPECT'S STATEMENTS:** Suspect denied using any medication or drugs.

11. **DRE'S OPINION:** In my opinion Cole is under the influence of an ________________ and unable to operate a vehicle safely.

12. **TOXICOLOGICAL SAMPLE:** The suspect provided a blood sample.

13. **MISCELLANEOUS:**

Rev. 03/08
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Davis, Paul M.

1. LOCATION: The evaluation was conducted in interview room at the E.B.P.D.

2. WITNESSES: Officer James Angermeir of the East Brunswick Police Department.

3. BREATH ALCOHOL TEST: Davis' breath test was 0.00%.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: Writer was contacted by radio and advised to contact Officer Angermeir for a drug evaluation. Officer Angermeir advised that he had located the suspect slumped over behind the steering wheel of his vehicle parked along the shoulder of E. Main Street. The vehicle was in drive and his foot was on the brake. The suspect's speech was slow, low and raspy. His coordination was poor and he was very unstable on his feet. He performed poorly on the SFST's and was arrested for DUI.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the interview room at the P.D. He appeared drowsy and was having difficulty keeping his eyes open. His head was nodding forward and he had droopy eyelids. His voice was slow, low and raspy and his pupils appeared to be constricted.

6. MEDICAL PROBLEMS AND TREATMENT: The suspect said he felt sick.

7. PSYCHOPHYSICAL TESTS: Romberg Balance: Suspect swayed approximately two inches side to side and two inches front to back. He estimated 30 seconds in 68 seconds. Walk & Turn: Suspect lost his balance twice during the instructions, stopped walking four times, missed heel to toe three times, stepped off the line three times and used his arms for balance. One Leg Stand: Suspect put his foot down numerous times on both the left and right foot and the tests were stopped for safety reasons. Finger to Nose: Suspect missed the tip of his nose on five of the six attempts. His movements were slow and his head was leaning forward towards his chest.

8. CLINICAL INDICATORS: Suspect's pupils were constricted and showed no visible reaction to light. His pulse, blood pressure and temperature were below the normal ranges.

9. SIGNS OF INGESTION: Fresh oozing puncture mark on the back of the left hand.

10. SUSPECT'S STATEMENTS: The suspect made several references to being “clean.”

11. DRE'S OPINION: In my opinion Davis is under the influence of a ________________ and unable to operate a vehicle safely.

12. TOXICOLOGICAL SAMPLE: The suspect provided a blood sample.

13. MISCELLANEOUS: Rev. 03/
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Elliott, John B.

1. **LOCATION:** The evaluation was conducted at the Adult Processing Center (APC)

2. **WITNESSES:** Deputy Chief Richie Tucker of the Winchester Police Department witnessed and recorded the evaluation

3. **BREATH ALCOHOL TEST:** Elliott’s breath test was a 0.00%.

4. **NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER:** The writer was on duty and contacted Sergeant Ilnicki requesting a drug evaluation. According to Sergeant Ilnicki, the suspect had just left a concert at the RCA Dome and was stopped for driving without headlights and for failure to yield the right of way. The suspect was acting very strange. He was highly emotional and his speech was incoherent at times. He performed poorly on the SFST’s and was arrested for DUI.

5. **INITIAL OBSERVATION OF SUSPECT:** Writer first observed the suspect in the interview room at A.P.C. He had very poor balance and stumbled when he walked. He was very emotional. At times he was laughing uncontrollably and then would start crying for no reason. His speech was mumbled and mostly incoherent. His pupils appeared dilated.

6. **MEDICAL PROBLEMS AND TREATMENT:** None noted or stated.

7. **PSYCHOPHYSICAL TESTS:** Romberg Balance: Suspect swayed approximately 4” front to back and 4” side to side until losing his balance and the test was stopped for safety reasons. Walk and Turn: The suspect could not maintain his balance in the instructions stage of the test had to be stopped for safety reasons. One leg Stand: Suspect could not stand on one foot and nearly fell each time. The test was stopped for safety reasons. Finger to Nose: The suspect was unable to complete this test and it was also stopped for safety reasons.

8. **CLINICAL INDICATORS:** The suspects pupils were dilated in all three lighting conditions, His pulse, blood pressure and temperature were above the normal ranges.

9. **SIGNS OF INGESTION:** None noted or stated.

10. **SUSPECT’S STATEMENTS:** When asked about drug use, the suspect started laughing.

11. **DRE’S OPINION:** In my opinion Elliot is under the influence of a __________ and unable to operate a vehicle safely.

12. **TOXICOLOGICAL SAMPLE:** The suspect provided a urine sample.

13. **MISCELLANEOUS:**

Rev. 03/08
SESSION XXVI

PREPARING THE NARRATIVE REPORT
SESSION XXVI    PREPARING THE NARRATIVE REPORT

Upon successfully completing this session the student will be able to:

1. Discuss the essential elements of the drug influence evaluation report.
2. Prepare a clear and concise narrative description of the results of the drug influence evaluation.
The Importance of Documentation

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. The results of the blood or urine analysis definitely play a supportive, or corroborative role. However, the chemical test simply cannot prove that the subject 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 Components of the Drug Influence Evaluation Report

The DRE report has two major components. 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 subject. This face sheet is a unique document. It is used by every law enforcement agency that participates in the Drug Evaluation and Classification program. It contains some very important information, and it must be filled out accurately and completely. Every box on the face sheet should be completed. The face sheet does not constitute the entire DRE report. A narrative section also must be prepared. The narrative section must be a clear, plain English, detailed rendition of all evidence obtained during all twelve components of the DRE evaluation, including the breath test result; the information obtained from your interview of the arresting officer; statements, actions, gestures, etc. made by the subject; paraphernalia found in the subject's possession; to name a few. Bear in mind that the face sheet is a technical document. As a DRE, you must be very familiar with the face sheet, and with its various symbols, and abbreviations. However, many prosecutors, most judges and virtually all jurors won't know how to interpret 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 Drug Influence Evaluation face sheet should 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.

In order to assist with the interpretation of the information on the face sheet, boxes on the face sheet should not be left blank. It is recommended that "N/A" or "None Observed" be used.

The first two lines of the drug influence evaluation face sheet consists of spaces to record data consistent with your department's standard operating procedures.

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On the next three full lines of the report, you will record identifying information about the subject, the arresting officer, and the time and place where the DRE evaluation was conducted. You will also note the results of the breath test (if available), and note the type of sample (blood or urine) collected for drug analysis. You will indicate whether the subject was admonished of his or her constitutional rights in accordance with the Miranda ruling, and if so, by whom.

<table>
<thead>
<tr>
<th>ARRESTEE’S NAME (LAST, FIRST, MI)</th>
<th>DOB</th>
<th>SEX</th>
<th>RACE</th>
<th>Arresting Officer (Name, ID No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE EXAMINED/TIME/LOCATION</td>
<td>BREATH RESULTS: [ ] Refused Instrument #</td>
<td>CHEMICAL TEST [ ] Urine [ ] Blood [ ] Refused</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIRANDA WARNING GIVEN: [ ] Yes [ ] No By:</td>
<td>What have you eaten today? When?</td>
<td>What have you been drinking? How much? Time of last drink?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Starting on the sixth line, and continuing through the tenth line, you will record the results of the preliminary examination of the subject. If the subject 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 subject 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.

<table>
<thead>
<tr>
<th>Time Now?</th>
<th>When did you last sleep? How long?</th>
<th>Are you sick or injured? [ ] Yes [ ] No</th>
<th>Are you diabetic or epileptic? [ ] Yes [ ] No</th>
<th>Are you a diabetic or epileptic? [ ] Yes [ ] No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you take insulin? [ ] Yes [ ] No</td>
<td>Do you have any physical defects? [ ] Yes [ ] No</td>
<td>Are you under the care of a doctor or dentist? [ ] Yes [ ] No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are you taking any medication or drugs? [ ] Yes [ ] No</td>
<td>ATTITUDE</td>
<td>COORDINATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPEECH</td>
<td>EYES: [ ] Reddened Conjunctiva [ ] Normal [ ] Bloodshot [ ] Watery</td>
<td>Blindness: [ ] None [ ] L Eye [ ] R Eye</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORRECTIVE LENS: [ ] None [ ] Glasses [ ] Contacts, if so [ ] Hard [ ] Soft</td>
<td>PUPIL SIZE: [ ] Equal [ ] Unequal (explain)</td>
<td>Tracking: [ ] Equal [ ] Unequal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After completing the preliminary questioning of the subject, be sure to record brief descriptions of their attitude, coordination, speech, breath and facial appearance. Check to determine the type of corrective lenses the subject is wearing, if any, and record the general appearance of the subject’s eyes. Be sure to indicate whether the subject is or claims to be blind in either eye. Check the subject’s tracking ability (just as you would test for lack of smooth pursuit). While you are assessing the subject’s tracking ability, you can also perform a preliminary assessment of whether horizontal gaze nystagmus is present in the subject’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 subject has consumed some drug other than alcohol. Note whether the subject'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 subject's pulse that are required during the DRE evaluation. Always record the pulse in beats per minute. For example, since you use a 30 second 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.

<table>
<thead>
<tr>
<th>PULSE &amp; TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em><strong><strong>/</strong></strong></em></td>
</tr>
<tr>
<td>2. <em><strong><strong>/</strong></strong></em></td>
</tr>
<tr>
<td>3. <em><strong><strong>/</strong></strong></em></td>
</tr>
</tbody>
</table>

Record the results of the checks for Horizontal Gaze Nystagmus, Vertical Gaze 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 and sustained 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 subject 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.

<table>
<thead>
<tr>
<th>HGN</th>
<th>Left Eye</th>
<th>Right Eye</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Smooth Pursuit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Deviation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angle of Onset</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the Vertical Gaze Nystagmus test, simply check either the "YES" or "NO" box, depending on whether the evidence was present or absent.

Vertical Nystagmus?  [ ] Yes  [ ] No

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 subject'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 subject 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 subject sways forward and backwards from center. The figure on the right (with two arms and legs) is used to depict side to side swaying. If the subject sways in a circular manner, indicate by writing "Circular Swaying" across the "stick figures". In the space marked "Internal Clock", write the number of seconds that the subject 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 subject walked, and you must indicate how often each of the eight validated clues was observed. On the diagram of steps, when the subject steps off the line, indicate with half a slash mark at an angle in the direction the step was taken. If the subject misses heel to toe, indicate it with a slash mark between the feet with an “M” marked underneath. If the subjects stops walking, indicate that with a slash mark between the feet with an “S” marked underneath.

Anything else that is unusual or noteworthy about how the subject 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 subject took. In the space below the diagram of the feet, write a brief but clear description of how the subject executed the turn; if he or she turned in the proper fashion, simply write "PROPER". If the subject 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 subject put the foot down (if at all) and you will indicate how often each of the four validated clues was observed. Always have the subject first perform this test by standing on the left foot. If the subject puts the elevated foot down, indicate above the foot the number they were counting when they put their foot down. In the example to the left, the subject put the right foot down when they had counted to “one thousand thirteen” and again when the count reached "one thousand twenty". Put check marks in or near the boxes below the sketch to indicate how often each of the
four clues was seen while the subject stood on the left foot. Place the count the subject reached in 30 seconds in the top of the box over the foot they were standing on.

Then, have the subject 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 subject was wearing while performing these tests.  

For the Finger to Nose test, you will diagram exactly where each finger tip touched the subject’s face. Simply draw a line from the point touched 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 subject (i.e., "left, right, left, right, right, left"). If the subject inadvertently uses the incorrect hand at some point, draw in an additional appropriate symbol (circle or triangle), write the 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 attempt.

Pupil size estimations are to be recorded in the boxes provided. Using a pupillometer, record the size of the circle or semi-circle that comes closest to the size of the pupil. If a pupil appears to be slightly smaller than the 3.0 mm circle/semi-circle, DO NOT write 2.8 or 2.9 as the pupil size. Always record to the nearest half mm.

<table>
<thead>
<tr>
<th>PUPIL SIZE</th>
<th>Room Light</th>
<th>Darkness</th>
<th>Direct</th>
<th>NASAL AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left Eye</td>
<td></td>
<td></td>
<td></td>
<td>ORAL CAVITY</td>
</tr>
<tr>
<td>Right Eye</td>
<td></td>
<td></td>
<td></td>
<td>REBOUND DILATION</td>
</tr>
<tr>
<td>REBOUND DILATION</td>
<td>Yes</td>
<td>No</td>
<td>Reaction to Light</td>
<td></td>
</tr>
</tbody>
</table>

In the spaces provided, write a brief but clear description of anything noteworthy that you found in your examinations of the subject’s nose and mouth. If rebound dilation is observed, note that in the appropriate space. Rebound dilation is a period of pupillary constriction followed by a period of pupillary dilation where the pupil steadily increases in size and does not return to its original constricted size. For example, the pupil might initially expand to 5.0 mm, constrict, and then "balloon out" to 7.0 mm, constrict, then expand back to 7.0 mm, etc. REMEMBER that sloppy procedure with the penlight could induce a response that could be confused with rebound dilation. If you inadvertently move the penlight closer to the subject’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 subject’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 constriction of the pupil was evident, write “Slow”; if the pupil did not appear to constrict at all, write “None”. Approximately one (1) second is normal.
Record both the systolic and diastolic blood pressure (in even numbers), and the subject's body temperature, in the spaces provided. Also indicate whether the subject's muscle tone appeared to be rigid, flaccid or normal.

**BLOOD PRESSURE _______/_______ TEMP_______°**

- **Muscle Tone:**
  - [ ] Normal
  - [ ] Flaccid
  - [ ] Rigid

On the fourth line from the bottom, record the subject's responses to the final three questions. Remember that most, if not all, courts generally hold that a subject must be advised of constitutional rights before these kinds of questions should be asked.

<table>
<thead>
<tr>
<th>What Medicine or Drug Have You Been Using?</th>
<th>How Much?</th>
<th>Time of use?</th>
<th>Where Were the Drugs Used? (Location)</th>
</tr>
</thead>
</table>

The last three 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, and your opinion of the evaluation. If another DRE supervised your evaluation, their name should be written in the “Reviewed By” block on the lower right corner of the form. That is especially important during your certification training phase.

<table>
<thead>
<tr>
<th>Date/Time of Arrest</th>
<th>Time DRE Notified</th>
<th>Eval Start Time</th>
<th>Time Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member Signature (Include Rank)</td>
<td>ID No.</td>
<td>Reviewed By:</td>
<td></td>
</tr>
</tbody>
</table>

- **Opinion of Evaluator:**
  - [ ] Rule Out
  - [ ] Medical
  - [ ] Alcohol
  - [ ] Stimulant
  - [ ] Dissoc. Anesthetic
  - [ ] Inhalant
  - [ ] Depressant
  - [ ] Hallucinogen
  - [ ] Narcotic Analgesic
  - [ ] Cannabis

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 include the following: (Refer to next page)
Guidelines for Writing the Narrative Report

The narrative portion of a standard DRE report has thirteen segments, which include:

a. **Location**

State where the drug influence evaluation was conducted.

Example: The evaluation was conducted in the DRE room, at the Maricopa County Jail, Phoenix, Arizona.

b. **Witnesses**

List the 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: The entire evaluation was witnessed and recorded by Sergeant Paul White of the Maricopa County Sheriff’s Office.

c. **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 record the serial number or other identifier of the instrument on which the test was taken.

Example: The arresting officer, Officer Darren Nielsen of the Phoenix Police Department obtained an 0.00 BrAC reading from the suspect at 9:20 p.m. using the Intoxilyzer 5000, Serial #474501.

d. **Notification and Interview of the Arresting Officer**

Indicate when you were first notified of the request for a drug influence evaluation and summarize the information you were given at that time. Include a summary of your interview of the arresting officer.

Example: At approximately 9:20 p.m. the writer was contacted by dispatch and requested to conduct a DRE evaluation for Officer Nielsen. Writer contacted Officer Nielsen at the Maricopa County Jail where it was determined that Richardson had been observed driving slowly and failed to stop at a red light. Officer Nielsen stated Richardson appeared sleepy and was “on the nod.” Officer Nielsen also stated the suspect’s voice was low in volume, raspy in tone and slow in tempo. His balance and coordination was poor and he was arrested for DUI after performing poorly on the SFST’s.
e. **Initial Observation of the Subject**

Document in detail your personal initial observations of the subject. Describe where and when you first saw the subject. Highlight any noteworthy or unusual actions, appearances, etc. that you observed. Summarize the findings of your Preliminary Examination of the subject.

Example: *Writer first observed the suspect in the M.C.S.O. DRE room. He moved very slowly, was unstable on his feet and when he walked across the room he stumbled and nearly fell. His head nodded forward repeatedly and he appeared to be “on the nod.” When he answered questions from Officer Nielsen, his words were slow and slurred. His eyelids were droopy and his pupils appeared to be constricted. His first pulse was checked at 58 BPM.*

f. **Medical Problems and Treatment**

Describe your own observations concerning possible injuries or illness that the subject may be suffering. Document subject's statements or claims concerning illness or injury. Document any medical attention or treatment that the subject received while in your care.

Example: *The suspect claimed no illness or injury. No evidence of injury or illness was observed during the evaluation.*

g. **Psychophysical Indicators of Impairment**

Give a brief but clear, complete and accurate description of the subject's performance of the Romberg Balance, Walk and Turn, One Leg Stand and Finger to Nose tests.

Example: *Romberg Balance: The suspect exhibited a 2" front to back sway and a 3" side to side sway. The suspect had a slow internal clock estimating 30 seconds in 52 seconds and his head repeatedly dropped forward towards his chest during the test. Walk & Turn: The suspect lost his balance during the instruction stage, missed heel to toe three times during the first nine steps and three times on the second nine steps. He turned incorrectly with a pivot and nearly fell. One Leg Stand: The suspect ..... etc.*

h. **Clinical Indicators of Impairment**

Give a brief but clear, complete and accurate description of your examinations of the subject's eyes, vital signs and any tremors observed.

Example: *No clues of HGN and VGN were observed. Lack of Convergence was observed. The suspect’s pupils were constricted in all three lighting conditions, there was no visible reaction to light and his eyelids were droopy. The suspect’s pulse rates were below the normal range (58, 56, 58 BPM). His blood pressure was also below the normal range at 114/68.*
i. **Signs of Ingestion**

Document the results of your examinations of the subject's oral and nasal cavities, search for injection marks, etc. Describe any odors detected on the subject's breath, hands, clothing, etc. Describe any physical debris of drugs or drug paraphernalia found on the subject's person.

Example: Three fresh puncture wounds were located on the suspect's left forearm. Numerous scar lines ("track marks") were observed on his left inside forearm. (Photographs attached)

j. **Suspect'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 subject and his or her waiver.

Example: The suspect repeatedly denied using drugs, stating “I told you, I don’t do drugs.”

k. **The DRE's Opinion**

State the category or combination of categories of drugs that you believe is/are affecting the subject. State your opinion concerning the subject's ability to operate a vehicle safely, if vehicle operation is relevant to this case.

Example: In my opinion, 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.) collected from the subject. 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 subject refused to submit a sample, state that fact in the report.

Example: A urine sample was obtained from the suspect at 10:35 p.m., witnessed by the writer and Sgt. White. The sample was....

m. **Miscellaneous**

Include any other information that might be relevant.

Example: Three syringes with needles were located by Officer Nielsen in Richardson’s vehicle.

The remaining pages of this session provide a complete sample DRE drug influence evaluation report, on suspect Richardson.
DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Richardson, John.

1. LOCATION: The evaluation was conducted in the DRE room at the Maricopa County Jail, Phoenix, Arizona.

2. WITNESSES: The entire evaluation was witnessed and recorded by Sergeant Paul White of the Maricopa County Sheriff's Office.

3. BREATH ALCOHOL TEST: The arresting officer, Officer Darren Nielsen of the Phoenix Police Department obtained an 0.00 BrAC reading from the suspect at 9:20 p.m., using the Intoxilyzer 5000, Serial #474501.

4. NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: At approximately 9:20 p.m., the writer was contacted by dispatch and requested to conduct a DRE evaluation for Officer Nielsen. Writer contacted Officer Nielsen at the Maricopa County Jail where it was determined that Richardson (DOB 09/06/74) had been observed driving slowly and failed to stop at a red light. Officer Nielsen stated Richardson appeared sleepy and was “on the nod.” Officer Nielsen also stated the suspect’s voice was low in volume, raspy in tone and slow in tempo. His balance and coordination was poor and he was arrested for DUI after performing poorly on the SFST’s.

5. INITIAL OBSERVATION OF SUSPECT: Writer first observed the suspect in the M.C.S.O. DRE room. He moved very slowly, was unstable on his feet and when he walked across the room he stumbled and nearly fell. His head nodded forward repeatedly and he appeared to be “on the nod.” When he answered questions from Officer Nielsen, his words were slowed and slurred. His eyelids were droopy and his pupils appeared to be constricted.

6. MEDICAL PROBLEMS AND TREATMENT: The suspect claimed no illness or injury. No evidence of injury or illness was observed during the evaluation.

7. PSYCHOPHYSICAL TESTS: The suspect exhibited impairment throughout all portions of the psychophysical tests. Romberg Balance: The suspect exhibited a 2” front to back sway and a 3” side to side sway. The suspect had a slowed internal clock estimating 30 seconds in 52 seconds and his head repeatedly dropped forward towards his chest during the test. Walk and Turn: The suspect lost his balance during the instruction stage, missed heel to toe three times during the first nine steps and three times on the second nine steps. He turned incorrectly with a pivot and nearly fell. He also raised his arms almost continuously throughout the test. One Leg Stand: The suspect counted very slowly throughout the test making it to 1012 in 30 seconds while standing on his left foot and 1015 in 30 seconds while standing on his right foot. He also put his foot down three times while standing on his left foot and twice while standing on his right foot. Additionally, he swayed while trying to balance and used his arms for balance throughout both tests. Finger to Nose: The suspect responded to commands very slowly and used the wrong hands on attempts #5 and #6. He did not touch the tip of his nose on any of the six attempts.
8. **CLINICAL INDICATORS:** EYES: No clues of HGN or VGN were observed. Lack of Convergence was observed. The suspect’s pupils were constricted in all three lighting conditions, there was no visible reaction to light and his eyelids were droopy. VITAL SIGNS: The suspect’s pulse rates were below the normal range (58, 56, 58 BPM). His blood pressure was also below the normal range at 114/68.

9. **SIGNS OF INGESTION:** Three fresh puncture wounds were located on the suspect’s left forearm. Numerous scar lines (“track marks”) were observed on his left inside forearm. (Photographs attached) Muscle tone was flaccid and the suspect’s arms felt cool to the touch.

10. **SUSPECT’S STATEMENTS:** The suspect repeatedly denied using drugs stating, “I told you, I don’t do drugs.” He stated he was right-handed and the puncture wounds on his left forearm were thorn scratches from gardening.

11. **DRE’S OPINION:** In my opinion, Richardson is under the influence of a Narcotic Analgesic and is unable to operate a vehicle safely.

12. **TOXICOLOGICAL SAMPLE:** A urine sample was obtained from the suspect at 10:35 p.m., witnessed by the writer and Sgt. White. The sample was delivered to the Evidence Property Room pending analysis by the Forensic Laboratory.

13. **MISCELLANEOUS:** Three syringes with needles were located by Officer Nielsen in Richardson’s vehicle.

Rev. 03/08
SESSION XXVII

PRACTICE: TEST ADMINISTRATION
SESSION XXVII   PRACTICE: TEST ADMINISTRATION

Upon successfully completing this session the student will be better able to:

- Administer selected portions of the battery of examinations that constitute the drug influence evaluation.
- Describe the evaluation procedures.
- Document the results of the examinations.
In this session, you will have an opportunity to practice conducting a complete drug influence evaluation. You will work in a team with one or two fellow students. When you conduct the evaluation, your teammate will serve as your test subject. And, you will serve as the subject for a teammate when he or she conducts the evaluation.

This is an opportunity for you to practice the components of the evaluation in a controlled setting. Gaining confidence in your ability to conduct the evaluation 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 evaluation conducted by your team members.
SESSION XXVIII

CASE PREPARATION AND TESTIMONY
SESSION XXVIII   CASE PREPARATION AND TESTIMONY

Upon successfully completing this session the student 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 influence evaluations.
- 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 influence evaluation 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 basis 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 curriculum vitae 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 evaluations.

Voir Dire is 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.

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.

**Introduction of Evidence Involving "New" Scientific Principles**

As a DRE, 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.
American courts employ either the Frye or the Daubert standards for determining the admissibility of scientific evidence. 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, 293 F. 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.

The Daubert standard derives from Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993). Some courts refer to the standard as the Daubert/Kumho standard because the Supreme Court readdressed and reaffirmed the standard in Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999). Pursuant to Daubert, courts serve as a “gatekeeper” for all scientific evidence, regardless of newness or novelty. Scientific evidence is admissible if the court determines that the underlying “reasoning or methodology” is “scientifically valid.” Courts assess the evidence by considering four factors: (1) whether the opinions offered are testable; (2) whether the methods or principles used to reach the opinions have been subject to peer review evaluation; (3) whether a known error rate can be identified with respect to the methods or principles underlying the opinion; and (4) whether the opinion rests on methodology that is generally accepted within the relevant scientific or technical community(ies).

C. 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 drug categories 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 evaluation of the suspect. And, you may be asked questions that try to suggest that you eliminated portions of the evaluation, or only gave very cursory attention to some portions. Guard against these kinds of defense challenges by always performing a complete, painstaking evaluation, exactly as you have been taught. Standardization will help ensure both consistency and credibility.
DRE DEFENSE CROSS EXAMINATION QUESTIONS

The following are representative of questions the defense may use to challenge the DRE’s testimony 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? CNS 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 not 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 officers, 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 actually a 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 CNS Stimulants dilate the pupil, do you? You don’t know how alcohol supposedly causes Nystagmus, do you? You don’t know how CNS Stimulants supposedly elevate the heart rate, do you?

**Guessing Game**

*This tactic attacks the DRE’s opinion as a subjective guess, a belief, rather than objective. 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? And 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?

Document provided by Sgt. Tom Page (Retired), LAPD and DDA Linda Condron, Santa Clara County, CA.
REVIEW OF THE DRE SCHOOL
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 pages following the test.
SESSION XXIX
CLASSIFYING A SUSPECT (ROLE PLAY)
SESSION XXIX  CLASSIFYING A SUSPECT (ROLE PLAY)

Upon successfully completing this session the student will be able to:

- Conduct a complete drug influence evaluation using the systematic and standardized 12-step process.

- Compile a complete, clear and accurate report documenting the results of a drug influence evaluation using the 13-step component narrative report format.
In this session, you will have opportunities to participate in conducting a complete DRE drug influence evaluation of "arrested suspects". Of course, these "suspects" will not actually be under the influence of any drug. However, at various points during the evaluation 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 evaluation, 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 evaluation 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 evaluation.

You will work in this session as a member of a team with two or three fellow students. You and your teammates 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 evaluation.

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.
SESSION XXX

TRANSITION TO CERTIFICATION TRAINING
SESSION XXX TRANSITION TO CERTIFICATION TRAINING

Upon successfully completing this session the student will be able to:

- Demonstrate their mastery of the knowledge and skills the course was intended to help develop.
- Summarize the key topics covered.
- Offer comments and suggestions for improving the course.
- Receive assignments for Field Certification Training.
- Understand the steps involved in the DRE certification process.
This session completes the second phase, of your training as a Candidate DRE. 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 influence evaluation 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 influence evaluation. 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 improve the quality of the training, and to maintain the quality at the highest possible level.

A. Preparing For the Final Knowledge Examination

The following are not the questions that will appear on the Final 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.
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 influence evaluation. 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 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 Gaze 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
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 two 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
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 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 major 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 International Standards for the Drug Evaluation and Classification Program established by IACP, your instructors cannot endorse you for certification 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 DRE 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 used to document your drug influence examinations.) 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 DRE certification number assigned to you by
IACP. 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 drug influence evaluation in which you participated. In the "Control Number" box, you will print the number that you assign to the evaluation; i.e. if this is the seventh examination in which you participated in 2005, the control number would be 2005-7. 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 subject's full name (last, first, middle initial); further to the right, enter the arrest booking number if applicable. The booking number is whatever control number the responsible law enforcement agency assigned to track the case. 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 evaluation 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 evaluation began; in other words, an evaluation 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 subject is not impaired, that is what you will record. If you conclude that the person is under the influence of alcohol only, that is what you must record. If you believe the subject 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 subject has a positive BAC, don't forget to include "alcohol or ETOH" as one of those.

In the "Toxicologic Results" box, you will print the outcome of all chemical tests performed on the subject. 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 evaluation, 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 Log" 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 DRE State Coordinator or DRE Agency Coordinator to determine what policies 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.
DRUG EVALUATION AND CLASSIFICATION PROGRAM

LOG OF DRUG INFLUENCE EVALUATIONS

Drug Recognition Expert ____________________________________________ Page: __________

IACP Certification Number __________________________________________

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<thead>
<tr>
<th>CONTROL NUMBER</th>
<th>SUSPECT'S NAME</th>
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<th>DATE</th>
<th>OPINION OF DRE</th>
<th>TOXICOLOGIC RESULTS</th>
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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
Curriculum Vitae 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.
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.
4. **Rating of Instructors**

On a scale from 1 ("poor") to 5 ("excellent"), please indicate your overall assessment of each instructor.

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<th>Agree</th>
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Instructor Rating

Instructor Rating

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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.

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