

**LOS ANGELES POLICE DEPARTMENT**  
**Drug Alcohol Recognition Update**  
**1850-20310**  
**Expanded Course Outline**

**Instructional Goal:** “Update in instruction to help officers prevent crashes, deaths, and injury caused by drug-impaired drivers “

**Performance Objectives:** Using Instructor-Led Presentations, Participant-Led Presentations

Knowledge Examination, Reading Assignments students will:

- ❑ Acquire the knowledge and skills needed to distinguish individuals under the influence of: Alcohol, Drugs, Combinations of alcohol and other drugs, or who are suffering from an injury or illness
- ❑ Identify the broad categories of drugs introducing the observable signs of impairment manifested by an individual
- ❑ Learn what Drugs are common in Society and how they affect Vehicle Operation
- ❑ Understand the Development and Effectiveness of the program
- ❑ Overview of the DEC (Drug Evaluation Classification) Program Procedures
- ❑ Eye Examinations (a major component of the DEC Program procedures)
- ❑ Physiology and Drugs
- ❑ Vital Signs Examinations (a major component of the DEC Program procedures)
- ❑ The Seven Categories of Drugs
- ❑ Drug reference sources
- ❑ Interviewing Suspects (a major component of the DEC Program procedures)
- ❑ CV (Curriculum Vitae) Preparation and Maintenance
- ❑ Case Preparation and Testimony
- ❑ Qualify police officers to progress to the DRE (Drug Recognition Expert) Program
- ❑ By the conclusion of the training, students will understand how the application of this training is in keeping with IACP Standards and what is required for DRE certification

## **I. INTRODUCTION AND OVERVIEW**

**(1 hr.)**

### **A. Welcoming remarks and Objectives**

1. Welcome to the Drug Alcohol Recognition Update
2. Instructor Introduction(s)
  - a. Write the names of the Principal instructors and their relevant background on the dry-erase board
  - b. Write the names of the Instructor aides and other relevant individuals on the dry-erase board
3. Program Goals/Objectives
  - a. Ultimate Goal
    - 1) Increase DWI Deterrence and Decrease Alcohol-Related Crashes, Deaths and Injuries
    - 2) Enforcement's role in general DWI deterrence
      - a) DWI detection phases, cues and techniques
      - b) Requirements for organizing and presenting evidence in DWI cases
  - b. Overview of the DWI Problem
    - 1) In 2010, 16 percent of all drivers involved in fatal crashes during the week were alcohol-impaired, compared to 31 percent on weekends
    - 2) In fatal crashes in 2010 the highest percentage of drivers with a BAC level of .08 or higher was for drivers ages 21 to 24 (34%), followed by ages 25 to 34 (30%) and 35 to 44 (25%)
  - c. Job Performance Objectives
    - 1) Recognize and interpret evidence of DWI violations

**LOS ANGELES POLICE DEPARTMENT**  
**Drug Alcohol Recognition Update**  
**1850-20280**  
**Expanded Course Outline**

- 2) Administer and interpret validated psychophysical standardized field sobriety tests
- 3) Describe DWI evidence clearly and convincingly

**B. Administrative Details**

1. Discuss course schedule
2. Facilities
  - a. Point out restrooms
  - b. Point out lunch rooms
  - c. Identify local locations to eat
3. Logistics
  - a. Discuss Travel arrangements
  - b. Discuss transportation
4. Reading Assignments
  - a. Distribute the Students Manuals
    - 1) NHTSA DWI SFST manual <sup>1</sup>
    - 2) IACP SSFT manual<sup>2</sup>
    - 3) LAPD DRE Student <sup>3</sup>
  - b. Reading Assignments in Student Manuals
  - c. Advise students to read ahead to prepare for each class
  - d. Refer to manual Glossaries
  - e. Advise students to review the glossary to refresh their memory with respect to the terms used in the training

**C. LEARNING ACTIVITY: Pretest using the DWI SFST Manual <sup>4</sup>**

**PURPOSE:** To gage the students' knowledge base

**PROCEDURE:** Large Group Activity

1. The Instructor will distribute pre-tests
2. Allow participants approximately 10 minutes to complete the pre-test
3. Collect completed pre-tests
4. Using the Answer key, have the attending Instructors grade the completed pretests
5. Redistribute pre-test to participants after they are graded by instructor(s)

**II. OVERVIEW OF DETECTION, NOTE TAKING AND TESTIMONY**

**(1.5 hrs.)**

**A. Detection**

1. Three Phases of Detection
  - a. This segment focuses on the job of DWI detection
  - b. Driving While Impaired detection defined as - "The entire process of identifying and gathering evidence to determine whether or not a suspect should be arrested for a DWI violation"
  - c. Detection begins when the officer develops the first suspicion that a DWI violation possibly is occurring
  - d. Detection ends when the officer finally decides whether there is or is not sufficient probable cause to arrest the suspect for DWI

---

<sup>1</sup> 2013 NHTSA DWI Detection and standardized field sobriety testing manual from the NHTSA training management system

<sup>2</sup> 2013 IACP SSFT Manual

<sup>3</sup> 2012 Training Division DRE Unit Student Guide

<sup>4</sup> 2013 NHTSA DWI Detection and standardized field sobriety testing manual from the NHTSA training management system

**LOS ANGELES POLICE DEPARTMENT**  
**Drug Alcohol Recognition Update**  
**1850-20280**  
**Expanded Course Outline**

2. Driving While Impaired detection contacts involve three phases
  - a. In Phase One-the officer observes the suspect operating the vehicle
  - b. Phase Two- there usually is an opportunity to observe and speak with the suspect, face-to-face
  - c. In Phase Three-the officer usually has an opportunity to administer a structured tests to the suspect to evaluate the suspect's degree of impairment
3. Decisions in each Phase
  - a. Phase one Decision.
    - 1) Is there sufficient cause to command the suspect to stop?
    - 2) Can you articulate the probable cause?
  - b. Phase Two: Decision
    - 1) Is there sufficient cause to instruct the suspect to step from the vehicle for further investigation?
    - 2) Can you articulate the objective symptoms?
  - c. Phase Three: Decision
    - 1) Is there sufficient probable cause to arrest the suspect for DWI?
    - 2) Have you based the your arrest on the probable cause to stop the subject and can you articulate the objective symptoms which lead you to believe that the suspect is driving while impaired?
4. At any particular moment, any of these three major decisions could have three different outcomes
  - a. Possible Decision #1: "Yes...Do it now"
  - b. Possible Decision #2: "Wait...look for additional evidence"
  - c. Possible Decision #3: "No...Don't Do It"
5. Summary of Detection Phases
  - a. Sometimes, there is DWI detection contacts in which Phase One is absent: that is, where there is no evidence of DWI violation based on the officer's observation of the vehicle in motion
  - b. Sometimes, there are contacts in which Phase Three never occurs: that is, where no formal tests are administered to the suspect
  - c. At each phase of detection, the officer must determine whether there is sufficient evidence to provide the "reasonable suspicion" necessary to proceed to the next step in the detection process
    - 1) It is always the officer's duty to carry out what-ever phases are appropriate, to make sure that all relevant evidence of DWI is brought to light
    - 2) The ultimate decision to arrest or not arrest for DWI is based on the accumulation of all relevant evidence, from all phases

**B. DWI Investigation Field Notes**

1. Participants will have opportunities to practice observing, recording and describing evidence associated with the detection phases
2. Evidence gathered during the detection process is vital to establish the elements of the violation, and to support prosecution of the offense
3. This evidence is observational in nature, and therefore is extremely short-lived
4. Officers must be able to recognize and act on their own observations.
5. Officers also must be able to recall those observations, and describe them clearly and convincingly, to secure a conviction
  - a. Officer is inundated with much evidence of DWI: sights, sounds, smells, etc.

**LOS ANGELES POLICE DEPARTMENT**  
**Drug Alcohol Recognition Update**  
**1850-20280**  
**Expanded Course Outline**

- b. Officer recognizes this evidence, sometimes subconsciously, and bases arrest decision on it
  - c. But later, officer must be able to recollect this observational evidence
  - d. And must be able to express the evidence clearly in any written report or oral
6. Officers need a system for documenting their observations in notes at the scenes of DWI investigations
7. Standard Note-Taking Guide<sup>5</sup>
- a. Section I: Suspect/Vehicle/Location
  - b. Section II: Detection Phase One
  - c. Section III: Detection Phase Two
  - d. Section IV: Detection Phase Three

**C. Courtroom testimony**

- 1. Although the majority of DWI cases do not actually come to trial, the arresting officer must be fully prepared to testify in court
- 2. Testimonial evidence in DWI cases usually is the only way to establish that the accused was in fact the driver of the vehicle alleged to have been involved in the incident
- 3. Testimonial evidence also may be the primary and sometimes the only means of establishing that the accused was impaired by alcohol and/or other drugs
- 4. Even when scientific evidence is available, supportive testimonial evidence will be required to permit introduction of that scientific evidence in court
- 5. Testimonial evidence is only as good as it is clear and convincing
- 6. First Requirement: Prepare Testimony
  - a. Testimony preparation begins at the time of the incident
    - 1) Recognize significant evidence
    - 2) Compile complete, accurate notes
    - 3) Prepare complete, accurate report
  - b. Testimony preparation continues prior to trial
    - 1) Review note
    - 2) Review case jacket/file
    - 3) Mentally organize elements of offense, and the evidence available to prove each element
    - 4) Mentally organize testimony to convey observations clearly and convincingly
  - c. Prior to the trial, discuss the details of the case and testimony with the prosecutor assigned to the case
- 7. Testimony should be organized chronologically and should cover each phase of the incident
  - a. Initial observation of vehicle and/or suspect
  - b. Reinforcing cues, maneuvers or actions, observed after signaling suspect to stop, but before suspect's vehicle came to a complete stop
    - 1) Clues, statements and other evidence obtained during officer's initial face-to-face contact with suspect

---

<sup>5</sup> 2013 NHTSA DWI Detection and standardized field sobriety testing manual from the NHTSA training management system

**LOS ANGELES POLICE DEPARTMENT**  
**Drug Alcohol Recognition Update**  
**1850-20280**

**Expanded Course Outline**

- 2) Results of SFSTs administered to the suspect the arrest itself; including procedures used to inform suspect of arrest, admonish suspect of rights, etc.
- 3) The arrest itself; including procedures used to inform suspect of arrest, admonish suspect of rights, etc.
- 4) Suspect's actions and statements subsequent to the arrest
- 5) Observation of suspect subsequent to the arrest
- 6) The request for the chemical test; including procedures used, admonition of rights and requirements, etc.
- 7) The administration and results of the chemical test (if applicable)
- 8) Interview of suspect

**D. LEARNING ACTIVITY :Test Your Knowledge**

**PURPOSE:** To gage the students' knowledge base

**PROCEDURE:** Large Group Activity

1. Using the SFST Section IV<sup>6</sup>
2. Allow participants approximately 10 minutes to complete
3. Have students complete the questions as a form of review
4. Using the Answer key, have the attending Instructors will provide the answers
5. The students will use the forms for review

**III. THE LEGAL ENVIRONMENT**

**(1 hr.)**

**A. Basic DWI Statute: Driving While Under the Influence**

1. Elements of the offense
  - a. Unlawful for any person to operate or
  - b. Be in actual physical control of
  - c. Any vehicle within this state
  - d. While under the influence of alcohol and/or any drug
2. In order to arrest someone for a basic DWI violation, the officer must have probable cause to believe that all four elements are present
3. In order to convict a person of DWI, the arresting officer must establish beyond a reasonable doubt that all four elements were present
4. In particular, the arresting officer must establish that the accused was "under the influence"
  - a. Courts have generally held that "under the influence" means the ability to operate a vehicle has been affected, or impaired
  - b. To convict a person of DWI, the arresting officer must be able to show that the person's capability of safe operation has been impaired

**B. DISCUSSION: Implied consent law and Presumptions**

1. **ASK:** What is considered Impaired?
2. The question of how much impairment constitutes too much impairment is not completely clear
  - a. Some courts have held that impairment of driving to the slightest degree means the person is "under the influence"
  - b. Other courts have insisted on evidence of substantial driving impairment before they will convict someone of DWI

---

<sup>6</sup> 2013 NHTSA DWI Detection and standardized field sobriety testing manual from the NHTSA training management system

**LOS ANGELES POLICE DEPARTMENT**  
**Drug Alcohol Recognition Update**  
**1850-20280**

**Expanded Course Outline**

- c. The element of "under the influence" thus historically was (and remains) very difficult to prove
- 3. **ASK:** What is the purpose of the Implied Consent Law when it comes to DWI?
  - a. The principal purpose of the Implied Consent Law is to encourage people arrested for DWI to submit to chemical test, to provide scientific evidence of alcohol and/or drug influence
  - b. Key features/elements of the Implied Consent Law
    - a. When arrested for any acts alleged to have been committed while the person was operating or in actual physical control of a vehicle while under the influence of alcohol and/or any drug
    - b. Any person who operates a motor vehicle upon the public highways of this state shall be deemed to have given consent to a chemical test
  - c. Must produce a driver's license and proof of insurance when asked by law enforcement
  - d. Consenting to blood, urine, or breath tests to determine your blood alcohol content if requested
  - e. Performing field sobriety tests if requested
  - f. For the purpose of determining the alcohol and/or drug content of that person's blood
  - g. If a person so arrested refused to submit to the chemical test, no test shall be given
  - h. To convict a person of DWI, the arresting officer must be able to show that the person's capability of safe operation has been impaired
  - i. The provision for the license suspension (or revocation) exists to encourage DWI arrestees to submit to the test, so that valuable chemical evidence may be obtained
- 2. Legal presumptions
  - a. If test shows blood alcohol concentration is .08 or more: it shall be presumed that the person is under the influence
  - b. If test shows BAC is .05 or less: it shall be presumed that the person is not under the influence
  - c. If test shows BAC is more than .05 but less than .08, there is no presumption as to whether the person is or is not under the influence
- 3. Key Point: As far as establishing that the person was "under the influence" is concerned, the weight of the chemical test evidence is presumptive, not conclusive
  - a. If there is no evidence to the contrary, the court may accept the legal presumption, and conclude that the person was or was not under the influence on the basis of the chemical test alone
  - b. However, other evidence (such as testimony concerning observations of the accused's driving, demeanor, appearance, speech, etc.) may be sufficient to overcome the presumptive weight of the chemical test
  - c. Question number one: Is it possible for a person whose blood alcohol concentration was above the per se or presumptive level to be acquitted of DWI?
  - d. Question number two: Is it possible for a person whose blood alcohol concentration was below the per se or presumptive level to be convicted of DWI?
  - e. Summary point: The chemical test provides presumptive evidence of alcohol influence, but does not provide conclusive evidence

**C. Illegal per se statute Driving with a Prohibited Blood Alcohol Concentration**

# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

1. Illegal Per Se is another drinking-driving offense, related to, but different from DWI
2. Elements of the Offense: It is unlawful for any person to operate or be in actual physical control of any vehicle within this state while having a blood alcohol concentration at or above state's level
3. Illegal Per Se makes it an offense, in and of itself, to drive while having a BAC at or above state's level
  - a. To convict someone of an Illegal Per Se violation, it is not necessary to establish that the driver was under the influence
  - b. It is sufficient to establish that the driver's BAC was at or above state's level while operating a vehicle in this state
4. The Illegal Per Se law does not replace the DWI law: the two statutes work side-by-side
  - a. The two laws define two separate offenses
    - 1) One law makes it an offense to drive while under the influence of alcohol and/or any drug
    - 2) The other law makes it an offense to drive while having more than a certain percentage of alcohol in the blood
  - b. Since there is an Illegal Per Se law, why is it necessary to retain the old DWI law?
    - 1) For the Illegal Per Se offense, the chemical test result is conclusive evidence
    - 2) Principal purpose of Illegal Per Se law is to facilitate prosecution of drinking-driving offenders
      - a) The law reduces the state's burden of proof
      - b) Not necessary to show that defendant was "under the influence"
      - c) Sufficient to show that defendant's BAC was at or above state's level
  - c. However, Illegal Per Se law doesn't really make driving while impaired enforcement any easier
    - 1) Officer must still have probable cause to believe that the suspect is under the influence before the arrest can be made
    - 2) Implied Consent law requires that suspect already be arrested before the suspect is deemed to have given consent to submit to the chemical test
    - 3) Implied Consent law also requires that the arrest be made for "acts alleged to have been committed while operating a vehicle while under the influence"
5. Summary points
  - a. Police officers dealing with drinking-driving suspects must continue to rely primarily on their own powers of detection to determine whether or not an arrest should be made
  - b. Usually, it is impossible to obtain a legally admissible chemical test result until after the suspect is arrested
  - c. In some cases, suspects will refuse the chemical test after being arrested; then, the case will depend strictly on the officer's observations and testimony
  - d. While making a DWI arrest, an officer should always assume that the suspect will refuse the chemical test
  - e. The officer should strive to organize and present all observations in the written report and in verbal testimony, in such a clear and convincing

# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

fashion that the violator will be convicted regardless of whether the test is taken and regardless of the test result

#### D. Preliminary breath testing

##### 1. Purpose of the law.

- a. Using the Preliminary Alcohol Screening device (PAS)
- b. The preliminary breath testing law permits a police officer to request a DWI suspect to submit to an on-the-spot breath test prior to arresting the suspect for DWI

##### 2. Application of the law:

- a. When an officer has reason to believe from the manner in which a person is operating or has operated a motor vehicle
- b. That the person has or may have committed the offense of operating while under the influence
- c. The officer may request that person to provide a sample of breath for a preliminary test of the alcohol content of the blood
- d. Using a device approved for this purpose

##### 3. Application of preliminary breath test results

- a. The preliminary breath test shall be used for helping to determine whether an arrest should be made
- b. Results of the preliminary breath test may not be used as evidence against the defendant in court

##### 4. There may be penalties for refusal to submit to the preliminary breath test

- a. License action (suspension, etc.)
- b. Fine
- c. Other penalty provisions

#### E. Case Law Review Challenges to Horizontal Gaze Nystagmus (HGN) Admissibility and Matrix completion

##### 1. Student will use the information from case law on HGN to complete an informational Matrix

##### 2. Scientific validity and reliability

###### a. Discuss Blake Case<sup>7</sup>

1) State vs. Blake

2) Write "Arizona; 1986" opposite Blake on the matrix

3) This is considered a landmark case on HGN, because it was the first State Supreme Court level ruling

4) The Blake case, the Arizona Supreme Court took judicial notice of HGN: Henceforth, in Arizona, it is not necessary to introduce expert scientific testimony to secure the admissibility of HGN

b. The court also set standards governing the training of officers who would be qualified to testify about HGN

##### 3. Relationship of HGN to specific BAC level

###### a. Discuss Loomis Case<sup>8</sup>

b. People vs. Loomis

1) Write "California; 1984" opposite Loomis on the matrix

---

<sup>7</sup> STATE vs. BLAKE (Arizona, 1986) 718 P.2d 171 (Arizona, 1986); See also State vs. Superior. Court of County of Cochise, 149 Ariz 269, 718 P.2d 171, 60 ALR 4th, 1103

<sup>8</sup> People v. Loomis 3/29/1984 California Appellate Department, Superior Court Crim. A. No. 65544 203 Cal.Rptr. 767, 1984.CA.40909 March 29, 1984



# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

- 2) Court held that the officer was not entitled to testify as either a lay or expert witness about HGN, or to give his opinion about the defendant's BAC
- 3) Court held that HGN is new form of scientific evidence that will be allowed only when there is preliminary showing of its general acceptance in the scientific community
4. Officer training, experience, and application
  - a. Discuss Murphy Case<sup>9</sup>
  - b. State vs. Murphy
    - 1) Write "Iowa; 1990" opposite Murphy on the matrix
    - 2) The court noted that the officer was properly trained to administer the test and that there was no need that an officer be specially qualified to be able to interpret the results
    - 3) The court also ruled that HGN test results could not be used to determine a specific BAC level
  - c. Discuss Homan Case<sup>10</sup>
  - d. State vs. Homan
    - 1) Write "Ohio; 2000" opposite Homan on the matrix
    - 2) The court ruled that SFSTs conducted in a manner that departs from the methods established by NHTSA are "inherently unreliable"
    - 3) The court noted the statement in the NHTSA Participant Manual which states "if any of the SFST elements is changed, the validity of the tests is compromised"
  - e. Discuss Smith Case<sup>11</sup>
  - f. Smith vs. Wyoming
    - 1) Write "Wyoming; 2000" opposite Smith on the matrix
    - 2) For the purpose of establishing probable cause, an officer may testify to the results of field sobriety tests (including HGN) if it is shown that the officer has been adequately trained and conducted them in substantial accordance with that training
    - 3) Deficiencies in the administration of the SFSTs go to the weight accorded the evidence and not to its admissibility
    - 4) Prepare a matrix on the dry erase board using Blake, Loomis, Murphy, Homan, and Smith
    - 5) Refer to attachment A to select case law applicable to your state
5. Summary of HGN Case Law
  - a. Solicit participants' questions and comments about case law
  - b. The prevailing trend, in recent years, is for courts to admit HGN as evidence of impairment, provided the proper scientific foundation has been laid
  - c. But courts consistently reject all attempts to introduce HGN as evidence of a quantitative BAC
6. Case Law of Relative Importance
  - a. State vs. Ricke

---

<sup>9</sup> 451 N.W.2d 154 (1990)STATE of Iowa, Appellee, v. Robert Dean MURPHY, Appellant

<sup>10</sup> State v.Homan (2000), 89 Ohio St.3d 421.

<sup>11</sup> Smith v.State (2000) wy 185 11 P.3d 931 Supreme Court of Wyoming

## LOS ANGELES POLICE DEPARTMENT

### Drug Alcohol Recognition Update

1850-20280

#### Expanded Course Outline

- 1) The court held that HGN test results could be admitted into evidence to corroborate chemical test evidence that a person was operating a motor vehicle with a BAC level at or above 0.10
- 2) The court also held that HGN results could be admitted as independent proof for the offense of DWI
- b. State vs. City Court of City of Mesa
  - 1) The court ruled that in cases where there is no chemical test to determine a BAC level
  - 2) HGN test results can be admitted the same as of field sobriety tests to show a neurological dysfunction, one cause of which could be the ingestion of alcohol

#### D. LEARNING ACTIVITY :Test Your Knowledge worksheet

PURPOSE: To gauge the students' knowledge base

PROCEDURE: Large Group Activity

1. Using the SFST Manual IIII
2. Allow participants approximately 10 minutes to complete
3. Have students complete the questions as a form of review
4. Using the Answer key, have the attending Instructors will provide the answers
5. The students will complete the worksheet using the information learned during this session

## IV. ALCOHOL AS A DRUG

(1 hr.)

### A. Brief Overview of Alcohol

1. The word "alcohol" refers to a number of distinct but similar chemicals
  - a. Each of the chemicals that is called "alcohol" is composed of the three elements: hydrogen, carbon, and oxygen
  - b. Each of the "alcohols" is a drug within the scope of our definition
    - 1) Clarification
    - 2) All of the "alcohols" are chemicals that impair driving ability
  - c. But only one can be tolerated by the human body in substantial quantities
  - d. Clarification
    - 1) Most "alcohols" are highly toxic and will cause blindness or death if consumed in significant quantities
    - 2) Only one is intended for human consumption
  - e. ASK students: What are the names of some of the chemicals that are "alcohols"?
    - 1) Methyl
    - 2) Ethyl
    - 3) Isopropyl
2. Common Alcohols
  - a. Three of the more commonly known "alcohols" are Methyl, Ethyl, and Isopropyl
    - 1) Methyl Alcohol, also known as Methanol, or "wood alcohol"
    - 2) Ethyl Alcohol, also known as Ethanol, or "beverage alcohol"
      - a) Emphasize
      - b) Ethanol is the only kind of alcohol that humans can tolerate in significant quantities
    - 3) Isopropyl Alcohol, also known as Isopropanol, or "rubbing alcohol"
3. Ethanol Alcohol

**LOS ANGELES POLICE DEPARTMENT**  
**Drug Alcohol Recognition Update**  
**1850-20280**

**Expanded Course Outline**

- a. Ethanol is the kind of alcohol on which we will focus, because it is the only type intended for human consumption
  - 1) Ethanol is the active ingredient in beer, wine, whiskey, and other alcoholic beverages intended for drinking
  - 2) Like all “alcohols,” ethanol is composed of hydrogen, carbon and oxygen
  - 3) Chemists use a number of different symbols to represent ethanol
    - a) For our purposes, we will use the symbol
    - b) “ETOH”
- b. Ethanol has been around for a long time. People drank it long before they learned to write
- c. Ethanol is a naturally occurring drug. That is, it is produced through a process called fermentation
- d. In fermentation, spores of yeast, carried by the wind, come in contact with fruit or grain that has fallen to the ground
- e. Sugars in the fruit or grain chemically react with yeast, and produce ethanol
  - 1) Point out
  - 2) Humans almost certainly first encountered ethanol that had been produced accidentally in this fashion
- f. Through the process of fermentation, we can produce a beverage that has, at most, about 14% ethanol
- g. ASK students
  - 1) “Why can’t fermentation produce a higher ethanol concentration than 14%?”
  - 2) When the ethanol concentration reaches 14%, the yeast die, so fermentation stops
- h. If we want to have higher concentration ethanol beverages, we have to use another step in the production
- i. Distillation is the process used to produce a higher concentration of ethanol
- j. In distillation, a fermented beverage is heated to the point where the ethanol begins to boil
  - 1) Point out that ethanol starts to boil at a lower temperature than water
  - 2) The ethanol vapor is collected and allowed to cool until it turns back into a liquid
  - 3) By repeating the process of heating the liquid and collecting and cooling the vapors, higher and higher concentrations of ethanol can be produced
  - 4) Ethanol beverages that are produced by distillation are called distilled spirits
- k. ASK students to name some “distilled spirits”
  - 1) Whiskey
  - 2) Vodka
  - 3) Gin
  - 4) Rum, etc.
- l. Over the centuries in which people have produced ethanol, some standard sized servings of different beverages have evolved
  - 1) Beer is usually served in 12-ounce cans or bottles
    - a) Beer averages an ethanol concentration of four percent, a can or
    - b) Bottle contains a bit less than one-half ounce of pure ethanol
  - 2) Wine typically is served in a four-ounce glass

## LOS ANGELES POLICE DEPARTMENT

### Drug Alcohol Recognition Update

1850-20280

#### Expanded Course Outline

- a) At an ethanol concentration of 12%
- b) The glass of wine also has just a bit less than one-half ounce of pure ethanol
- 3) Whiskey and other distilled spirits are dispensed in a “shot” glass, which usually contain one and one-quarter ounces of liquid
  - a) Since whiskey usually has an ethanol concentration of 40%
  - b) A “shot” of whiskey has exactly one-half ounce of pure ethanol
- 4) For all practical purposes, standard sized servings of beer, wine, and whiskey all pack the same “punch”
4. ASK the students if they have any questions on the overview of alcohol

#### B. Physiologic Processes

1. Alcohol is the most abused drug in the United States
2. Ethanol is a Central Nervous System Depressant
  - a. It doesn't impair until it gets into the brain
  - b. It can't get into the brain until it first gets into the blood
  - c. It can't get into the blood until it first gets into the body
  - d. Point out: This concept is true with all drugs that impair
3. There are a number of ways in which alcohol can get into the body
  - a. It can be injected into a vein via hypodermic needle
  - b. It can be inhaled, i.e., alcohol fumes can be brought into the lungs, and some molecules will pass into the blood
  - c. Point out that a person would have to inhale concentrated alcohol fumes for a prolonged period of time in order to develop a significant blood alcohol concentration
  - d. It could also be inserted as an enema and ingested by quickly passing from the large intestine into the blood
  - e. But the vast majority of times that alcohol gets into the body, it gets there via drinking
4. Once the alcohol is in the stomach, it will take two routes to get into the blood
5. Under normal conditions, about 20% of the alcohol a person drinks gets into the blood by diffusing through the walls of the stomach
6. But most of the alcohol usually passes through the base of the stomach into the small intestine, from which it passes quickly into the blood
7. Alcohol is that it does not have to be digested before it can move from the stomach to the small intestine
  - a. When a person eats food, the food must remain for a time in the stomach
  - b. Acids and enzymes in the stomach must begin to break down the food to prepare it to pass to the lower portion of the gastrointestinal track
  - c. While the initial digestive process is underway, a muscle at the base of the stomach will constrict, and shut off the passage to the small intestine
8. Point to the pylorus on the visual
9. Since alcohol doesn't have to be digested, the pylorus does not constrict when alcohol enters the stomach
  - a. If we drink on an empty stomach, the pylorus stays wide open
  - b. The alcohol will pass immediately through the base of the stomach, into the small intestine, and quickly move into the bloodstream
10. ASK the class what will happen if there is food in the stomach when the person drinks alcohol?
  - a. Food will cause the pylorus to constrict

# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

- b. While the pylorus is closed, nothing will move from the stomach to the small intestine
  - c. Any alcohol that is in the stomach will be “trapped” there, along with the food
  - d. The alcohol will not get into the blood as quickly, and the blood alcohol concentration will not get as high, as if the drinking had been done on an empty stomach
  - e. While the alcohol is trapped in the stomach, the acids and enzymes will start to react with it and break it down
  - f. By the time the pylorus opens, some of the alcohol will have been chemically changed, so there will be less available to get into the blood
11. Solicit students’ comments and questions about the absorption of alcohol into the blood
12. Once the alcohol gets into the blood, the blood will carry it to the various tissues and organs of the body
13. Distribution of alcohol
- a. Alcohol is attracted to water
  - b. The blood will deposit the alcohol in all the parts of the body where water is found
  - c. Parts of the body that have a lot of water will receive a lot of alcohol
  - d. Parts of the body that have only a little water will receive little alcohol
14. ASK the Students which parts of the body have a lot of water?
- a. Brain
  - b. Liver
  - c. Muscle tissue
  - d. Kidney
15. ASK the students which parts contain very little water?
- a. Bones
  - b. Fatty tissue
16. The muscle tissue will receive a relatively high proportion of the alcohol that a person drinks
17. The fatty tissue will receive very little of the alcohol
18. The difference between men and women: pound-for-pound, the average male has much more water in his body than the average female
- a. ASK the Students why the difference exists
    - 1) The female body has more fatty tissue than does the male body
    - 2) Pound-for-pound, the average female has more fat and less muscle than does the average male
    - 3) Since fatty tissue has very little water, the average female, pound-for-pound, has less water than the average male
    - 4) This means that the average woman has fewer places in her body in which to deposit the alcohol she drinks
  - b. ASK the students: Suppose a woman and a man who weigh the exact same drink exactly the same amount of alcohol under exactly the same conditions. Who will reach the higher BAC
  - c. Solicit students’ comments and questions about the distribution of alcohol in the body
  - d. The woman’s blood alcohol concentration will be higher than the man’s because she has less water in which to distribute the alcohol
  - e. As soon as alcohol gets into the body, the body begins working to get rid of it
19. Elimination of Alcohol

**LOS ANGELES POLICE DEPARTMENT**  
**Drug Alcohol Recognition Update**  
**1850-20280**

**Expanded Course Outline**

- a. Some alcohol is simply expelled directly from the body, i.e., on the breath, in the sweat, in urine, etc.
  - b. Relatively little of the alcohol we drink is directly expelled from the body
  - c. The body eliminates most of the alcohol by chemically breaking it down
  - d. ASK students: What organ in the body is primarily responsible for chemically breaking the alcohol down?
    - 1) The liver
    - 2) It is primarily responsible for breaking down, or metabolizing, the alcohol
20. Metabolism in the Liver
- a. In the burning process, the alcohol combines with oxygen
  - b. The liver has an enzyme called alcohol dehydrogenase, which helps to speed up the reaction of oxygen with the alcohol
  - c. Alcohol dehydrogenase is a catalyst for the metabolism of alcohol
  - d. The reaction of alcohol with oxygen ultimately produces carbon dioxide and water, which can be directly expelled from the body
  - e. The speed with which the liver burns alcohol varies from person to person, and will change from time to time for any particular person
21. POSE this problem to the class
- a. Suppose a person reaches a peak BAC of 0.15.
  - b. How long will it take for his or her body to eliminate all of the alcohol?
    - 1) Answer: ten hours
    - 2)  $(0.15 - (x \text{ hours})(0.015/\text{hour}) = 0, x = 10$
    - 3) BUT ON THE AVERAGE: Due to metabolism, a person's BAC will drop by about 0.015 per hour
22. For the average male, a BAC of 0.015 is equal to the alcohol content of about two-thirds of a "standard drink"
- a. i.e., about two-thirds of a can of beer
  - b. Or about two-thirds of a glass of wine, or two-thirds of a shot of whiskey
23. For the average woman, a BAC of 0.015 is equal to the alcohol content of only one-half of a "standard drink"
- a. So the average male can "burn up" about two-thirds of a drink in an hour
  - b. The average female can only burn up about one-half of a drink in an hour
  - c. In other words
    - 1) suppose a person gulps down a can of beer, or a glass of wine, or a shot of whiskey;
    - 2) If the person is an average man, it will take him about an hour and one-half to burn up that alcohol;
    - 3) If the person is a woman, it will take her about two hours
24. Pose this question to the class:
- a. How can we speed up the metabolism of alcohol?
    - 1) We can't speed it up
    - 2) Drinking coffee won't help
    - 3) A cold shower won't help
    - 4) Exercise won't help
  - b. Our livers take their own sweet time burning the alcohol
25. Solicit students' comments and questions about the elimination of alcohol from the body

**C. Symptomatology of Alcohol**

1. Prior to the start of this session, draw the symptomology chart on the dry erase board or flip-chart

## LOS ANGELES POLICE DEPARTMENT

### Drug Alcohol Recognition Update

1850-20280

#### Expanded Course Outline

2. Point out that ETOH may elevate the pulse rate in lower BAC levels
3. ASK students: "What category of drugs is alcohol most closely associated?"
  - a. Indicators of Alcohol Influence Found in Eye Exams
  - b. HGN will be present
4. ASK "Does alcohol cause Vertical Gaze Nystagmus?"
  - a. Vertical Gaze Nystagmus may be present
  - b. Especially with high doses (for that individual) of alcohol
5. ASK "Does alcohol cause the eyes to be unable to converge?"
  - 1) Under the influence of alcohol
  - 2) Lack of Convergence frequently will be present
6. ASK "How do Depressants affect pupil size?"
  - a. Alcohol does not affect pupil size; therefore, alcohol usually leaves the pupils normal in size
  - b. Alcohol will cause pupillary reaction to light to be sluggish
  - c. Alcohol will cause pupillary reaction to light to be sluggish
7. Indicators of Alcohol Influence Found in Checks of Vital Signs
  - a. ASK
    - 1) "How does alcohol affect pulse rate?"
    - 2) Pulse rate will usually be down
  
    - 3) However, some subjects have been found to have elevated pulse rates at lower BACs
  - b. ASK
    - 1) "How does alcohol affect blood pressure?"
    - 2) Blood pressure response to alcohol will normally be down
  - c. ASK
    - 1) "How does alcohol affect body temperature?"
    - 2) Alcohol usually leaves temperature near normal
  - d. ASK
    - 1) "How does alcohol affect muscle tone?"
    - 2) Alcohol usually causes flaccid muscle tone
  - e. Solicit students' questions about the signs and symptoms of alcohol

#### D. Dose-Response Relationships

1. What does "Blood Alcohol Concentration" mean? (Solicit students' responses)
  - a. Blood alcohol concentration means the number of grams of pure ethanol that are found in every 100 milliliters of a person's blood
  - b. A gram is a measure of weight; it takes almost 500 grams to make a pound
    - 1) Instructor, for your information:
    - 2) It actually takes 454 grams to make a pound
2. A milliliter is a measure of volume
  - a. It takes about 500 milliliters to make a pint
  - b. Example: A 12-ounce can of beer has about 350 milliliters
3. The so-called "illegal limit" of BAC is 0.08 in all states
  - a. Point out that in 2005, all 50 states have adopted 0.08 BAC
  - b. If a person has a BAC of 0.08, it means there is 0.08 grams (g) of ethanol in every 100 milliliters (ml) of his/her blood
  - c. Point out that BAC results are reported in a variety of units
    - 1) Two common variations are milligrams/milliliters and percent

**LOS ANGELES POLICE DEPARTMENT**

**Drug Alcohol Recognition Update**

**1850-20280**

**Expanded Course Outline**

- 2) There are 1000 milligrams (mg) in one gram; therefore, 0.08 grams equals 80 milligrams (mg) and a BAC of 0.08 would be reported as 80 mg of ethanol/100ml of blood.
- d. Percent means parts of 100
4. Pose this question to the class: How much alcohol does a person have to drink to reach a BAC of 0.08?
  - a. Take an average male weighing 175 pounds and in reasonably good physical shape
  - b. Assume he does his drinking on an empty stomach
  - c. He would have to gulp down about 4 to 5 cans of beer, or 4 to 5 glasses of wine, or five shots of whiskey in a fairly short period of time to reach 0.08 BAC
  - d. In terms of pure ethanol, that would amount to just about two and one-half fluid ounces, or about two shot glasses
5. If these two shot glasses were filled with pure ethanol
  - a. We would have just enough of the drug to bring an average man to a BAC of approximately 0.10
  - b. Hold up the two shot glasses while posing the next question
    - 1) So answer this
    - 2) Does it take a lot of ethanol or only a little to impair a person?
    - 3) Solicit students' responses to the question
      - a) In one respect, it certainly doesn't take much ethanol to impair; just two full shot glasses will more than do the trick for a full-sized man
      - b) **BUT COMPARED TO OTHER DRUGS**, it takes an enormous quantity of ethanol to cause impairment
6. In order to compare ethanol to other drugs, we have to review some more units of weight
  - a. We're already familiar with the gram
  - b. It weighs only about one five-hundredth of a pound
7. The milligram is much lighter still and it takes about one thousand milligrams to make a gram
  - a. That means it takes nearly five hundred thousand milligrams to make a pound
  - b. If one gram is equal to one thousand milligrams, then one tenth of a gram is equal to one hundred milligrams
8. Clarification: 100 is one-tenth of 1,000
  - a. So a person with a BAC of 0.10 has 100 milligrams of ethanol in every 100 milliliters of his or her blood
  - b. That is exactly the same as saying there is one milligram of ethanol in every one milliliter of blood
9. The nanogram
  - a. It takes a million nanograms to make a milligram
  - b. That means it takes one billion nanograms to make a gram
  - c. And that means that it takes almost five hundred billion nanograms to make a single pound
  - d. So if a person's BAC is 0.10, he or she has one million nanograms of pure ethanol in every milliliter of blood
10. What kinds of concentrations of other drugs does it take to produce impairment?
  - a. Don't solicit responses to this question



# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

- b. It is purely rhetorical
- 11. It is Important to understand that we cannot state exact correspondences between alcohol concentrations and other drug concentrations
  - a. For example, we can say that someone with a blood alcohol concentration between 0.05 and 0.10 will exhibit significant impairment because there is a large body of scientific research that backs up that statement
  - b. So we can say that research shows that significant impairment will be found with alcohol at concentrations of 500,000 to one million nanograms per milliliter
  - c. But we can't say exactly how much cocaine, THC, morphine, or any other drug would take to produce exactly the same impairment that we would find at 0.10 BAC
  - d. In part, this is because we do not have extensive scientific research for most other drugs
  - e. But also it is because many other drugs do not impair in the same way that alcohol impairs
  - f. Example: Unlike alcohol, some other drugs (such as THC and PCP) readily deposit in fatty tissue and may continue to cause impairment even after they have cleared from the blood
- 12. Based on the available research, it is possible to make some general statements about drug concentrations that can safely be said to induce significant driving impairment
- 13. Amphetamines
  - a. Researchers agree that if we had two shot glasses full of pure amphetamines; we'd have enough to impair as many as ten thousand people
  - b. ASK students: What if these shot glasses were full of pure THC, the active ingredient in Cannabis?
    - 1) Available evidence suggests that if these two little glasses were full of pure THC, we'd have enough drugs to impair as many as twenty thousand people
    - 2) ASK students: But what if these glasses were full of pure LSD?
      - a) Many researchers believe that significant impairment results from very low LSD concentrations
      - b) If these two glasses contained pure LSD, we could impair up to one million people
    - 3) What does all this mean?
      - a) This is a rhetorical question
      - b) First, it means that compared to alcohol, most other drugs are very powerful: a little goes a long way
      - c) Example: A person who is "only" carrying one fluid ounce of LSD (hold up one shot glass) would be capable of impairing "only" the entire population of, say, Wyoming
      - d) Second, it means that laboratories may be stretched to the limits of their technologic capabilities when we send them samples and request certain drug analyses
      - e) All analytic techniques have detection thresholds, i.e., minimum concentrations of drugs that must be present if a scientific confirmation of the presence of the drug is to be obtained

**LOS ANGELES POLICE DEPARTMENT  
Drug Alcohol Recognition Update  
1850-20280**

**Expanded Course Outline**

- f) If the concentration of the drug is less than the detection threshold, the laboratory simply will not be able to confirm that the drug is present
  - g) The problem is that some people will be significantly impaired at drug concentrations that are below the lab's detection threshold
  - h) What this means is that a DRE sometimes examines a subject, concludes correctly that he or she is under the influence of a certain drug category, perhaps even obtains an admission from the subject that he or she has taken a drug, gets a toxicological sample and sends it to the lab, only to have the lab report that "no drugs were found"
- 4) When this happens to you – and it will – it is important that you don't let yourself become discouraged
- a) As a DRE, all you are expected to do is the best that you can do given the tools available
  - b) You will never become perfect in your diagnosis of drug impairment
  - c) There will be times when you will "miss" the fact that a subject is impaired
  - d) And there may be times when you will conclude that a subject is under the influence of a drug when, in fact, he or she isn't
  - e) We rely on the laboratory to corroborate our opinions, to help make sure that an innocent person is not punished because of an honest mistake in judgment on our part
  - f) The problem is that the laboratory isn't perfect either: the toxicologists won't always be able to corroborate your opinion, even though your opinion is accurate
- 5) Solicit students' comments and questions about dose-response relationships involving alcohol and other drugs

**E. DEBRIEF: Questions for Review**

1. Direct students to turn to the review questions at the end of Section VIII of their Student Manual
2. Pose each question to the class and solicit responses. Make sure all students understand the correct answers
3. Solicit students' comments and questions about "Alcohol as a Drug"

**V. CONCEPTS AND PRINCIPLES OF THE STANDARDIZED FIELD SOBRIETY TESTS**

**(2 hrs.)**

**A. Overview: Development and Validation**

1. Development of a battery of standardized field sobriety tests
2. 1975 extensive scientific research studies were sponsored by National Highway Transportation Safety Administration through a contract with the Southern California Research Institute (SCRI) to determine which roadside field sobriety tests were the most accurate
3. SCRI traveled to law enforcement agencies throughout the United States to select the most commonly used field sobriety tests. Six tests were used in the initial stages of this study

**LOS ANGELES POLICE DEPARTMENT**  
**Drug Alcohol Recognition Update**  
**1850-20280**

**Expanded Course Outline**

4. Laboratory research indicated that three of these tests, when administered in a standardized manner, were a highly reliable battery of tests for distinguishing BACs above 0.10
    - a. Horizontal Gaze Nystagmus (HGN)
    - b. Walk-and-Turn (WAT)
    - c. One-Leg Stand (OLS)
  5. NHTSA analyzed the laboratory test data and found<sup>12</sup>
    - a. HGN, by itself, was 77% accurate
    - b. WAT, by itself, was 68% accurate
    - c. OLS, by itself, was 65% accurate
    - d. By combining the results of HGN and WAT, an 80% accuracy rate can be achieved
  6. The final phase of this study was conducted as a field validation
    - a. Standardized, practical and effective procedures were developed
    - b. The tests were determined to discriminate in the field, as well as in the laboratory.
  7. The three standardized tests were found to be highly reliable in identifying subjects who's BACs were above 0.10.
- B. SFST Field Validation Studies<sup>13</sup>
1. Three SFST validation studies were undertaken between 1995 and 1998
    - a. Colorado - 1995
    - b. Florida - 1997
    - c. San Diego – 1998
  2. The Colorado SFST validation study was the first full field study that utilized law enforcement personnel experienced in the use of SFSTs
    - a. The original SCRI study utilized only a few experienced officers in DWI enforcement in both a laboratory setting and field setting
    - b. Based on the 3-test battery (HGN, WAT, OLS), correct arrest decisions were made 93% of the time. Substantially higher than the initial study results
  3. The Florida <sup>14</sup>SFST field validation study was undertaken in order to answer the question of whether SFSTs are valid and reliable indices of the presence of alcohol at 0.08 levels and above when used under present day traffic and law enforcement conditions
    - a. Based on the 3-test battery (HGN, WAT, OLS), correct decisions to arrest were made 95% of the time
    - b. This study has shown that the SFST 3-test battery is the only scientifically validated and reliable method for discriminating between impaired and unimpaired drivers
  4. The San Diego SFST field validation study was undertaken because of the nationwide trend towards lowering the BAC limits to 0.08. The question to be answered was "does SFST dis-criminate at BAC's below 0.10"
    - a. Based on the 3-test battery (HGN, WAT, OLS), arrest decisions were supported 91% of the time at the 0.08 BAC level and above
    - b. HGN is still the most reliable of the 3-test battery

---

<sup>12</sup> NHTSA Appendix A SFST Comparison of SFST Accuracies 1981vs.1998 combined Tharp, Burns & Moskowitz (1981)

<sup>13</sup> NHTSA Colorado Validation Study of SFST Battery final report 1995

<sup>14</sup> NHTSA Florida Validation Study on SFST 1997

# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

- c. This study provided the first indications supporting arrest decisions at 0.08 BAC. The study also suggests that HGN can provide valid indications of 0.04 BAC and above

#### C. Nystagmus Review

##### 1. Horizontal Gaze Nystagmus (HGN)

###### a. Review of definition

- 1) Involuntary jerking of the eyes, occurring as the eyes gaze to the side
- 2) In addition to being involuntary
- 3) person is generally unaware that it is happening
- 4) person is powerless to stop it or control it

###### b. Key Summary Point

- 1) Alcohol can cause HGN
- 2) certain other drugs cause Horizontal Gaze Nystagmus.

##### 2. Categories of Nystagmus

a. Horizontal Gaze Nystagmus is not the only kind of nystagmus

b. There are other circumstances under which the eyes will jerk involuntarily

c. It is important to know some of the other common types of nystagmus, to be aware of their potential impact on our field sobriety tests

d. The three general categories of nystagmus

1) Vestibular Nystagmus is caused by movement or action to the vestibular system

2) Types of vestibular nystagmus

- a) Rotational Nystagmus occurs when the person is spun around or rotated rapidly, causing the fluid in the inner ear to be disturbed
- b) Post Rotational When the person stops spinning, the fluid in the inner ear remains disturbed for a short period of time, and the eyes continue to jerk

c) Caloric Nystagmus occurs when fluid motion in the canals of the vestibular system is stimulated by temperature as by putting warm water in one ear and cold in the other

d) Positional Alcohol Nystagmus (PAN) occurs when a foreign fluid, such as alcohol, that alters the specific gravity of the blood is in unequal concentrations in the blood and the vestibular system

3) Nystagmus can also result directly from neural activity

a) Optokinetic Nystagmus occurs when the eyes fixate on an object that suddenly moves out of sight, or when the eyes watch sharply contrasting moving images

(1) Examples of optokinetic nystagmus include watching strobe lights, rotating lights, or rapidly moving traffic in close proximity

(2) The Horizontal Gaze Nystagmus test will not be influenced by optokinetic nystagmus if administered properly

b) Physiological Nystagmus is a natural nystagmus that keeps the sensory cells of the eye from tiring. It is the most common type of nystagmus

# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

- (1) It happens to all of us, all the time. This type of nystagmus produces extremely minor tremors or jerks of the eyes
  - (2) These tremors are generally too small to be seen with the naked eye
  - c) Gaze Nystagmus occurs as the eyes move from the center position. Gaze nystagmus is separated into three types
  - d) Horizontal Gaze Nystagmus occurs as the eyes move to the side. It is the observation of the eyes for Horizontal Gaze
  - e) Nystagmus that provides the first and most valid test in the standardized field sobriety testing battery
  - f) Vertical Gaze Nystagmus is an involuntary jerking of the eyes (up and down) occurring as the eyes are held at maximum elevation
    - (1) The presence of this type of nystagmus is associated with high doses of alcohol for that individual and certain other drugs
    - (2) The drugs that cause Vertical Nystagmus are the same ones that cause Horizontal Gaze Nystagmus.
    - (3) There is no drug that will cause VGN that does not cause HGN. If VGN is present and HGN is not, it could be a medical condition
  - 4) Nystagmus may also be caused by certain pathological disorders. They include brain tumors and other brain damage or some diseases of the inner ear. These pathological disorders occur in very few people and in even fewer drivers
3. Medical Impairment
- a. The observations that you can make to assess possible medical impairment include
    - 1) Pupil size
    - 2) Resting Nystagmus
    - 3) Tracking ability
  - b. Pupil Size will be affected by some medical conditions or injuries
    - 1) If the two pupils are distinctly different in size, it is possible that the subject has a glass eye, or is suffering from a head injury or a neurological disorder
  - c. Resting Nystagmus is referred to as jerking as the eyes look straight ahead. This condition is not frequently seen. Its presence usually indicates a pathology or high doses of a drug such as a Dissociative Anesthetic like PCP
  - d. Tracking Ability will be affected by certain medical conditions or injuries involving the brain
    - 1) If the two eyes do not track together, the possibility of a serious medical condition or injury is present
    - 2) By passing a stimulus across both eyes, you can check to see if both eyes are tracking equally
    - 3) If they don't (i.e., if one eye tracks the stimulus, but the other fails to move, or lags behind the stimulus) there is the possibility of a neurological disorder
    - 4) If a person has sight in both eyes, but the eyes fail to track together, there is a possibility that the person is suffering from an injury or illness affecting the brain

**LOS ANGELES POLICE DEPARTMENT**  
**Drug Alcohol Recognition Update**  
**1850-20280**

**Expanded Course Outline**

4. Administrative Procedures for Horizontal Gaze Nystagmus
  - a. Step I: Check for Eyeglasses.
    - 1) Begin by instructing the suspect to remove eyeglasses, if worn
    - 2) It does not matter whether the suspect can see the stimulus with perfect clarity, as long as suspect can see it at all
  - b. Step II: Verbal Instructions
    - 1) Put feet together, hands at the side
    - 2) Keep head still
    - 3) Look at the stimulus
    - 4) Follow movement of the stimulus with the eyes only
    - 5) Keep looking at the stimulus until told the test is over
  - c. Step III: Positioning the Stimulus
    - 1) Position the stimulus approximately 12-15 inches (30-38 cm) in front of suspect's nose, and
    - 2) Slightly above eye level to commence the test
  - d. Step IV: Equal Pupil Size and Resting Nystagmus
    - 1) Check for equal pupil size and
    - 2) Resting nystagmus
  - e. Step V: Tracking. Check for equal tracking
    - 1) Move the stimulus rapidly from center to far right, to far left and
    - 2) Back to center (approximately 2 seconds)
  - f. Step VI: Lack of Smooth Pursuit.
    - 1) Check the left eye for lack of the "Smooth Pursuit" clue
    - 2) If the eye is observed to jerk while moving, that is one clue
    - 3) Check the right eye for lack of the "Smooth Pursuit" clue and compare
  - g. Step VII: Distinct and Sustained Nystagmus at Maximum Deviation
    - 1) Check the left eye for the "distinct and sustained nystagmus at maximum deviation" clue
    - 2) If the jerkiness is distinct and sustained, that is one clue
    - 3) Check the right eye for the "distinct and sustained nystagmus at maximum deviation" clue and compare
  - h. Step IX: Total the clues
    - 1) Maximum number of clues possible for each eye: 3
    - 2) Total maximum number of clues possible for both eyes: 6
  - i. Step X: Check for Vertical Nystagmus
5. Clues for Horizontal Gaze Nystagmus
  - a. We look for three specific clues as evidence of alcohol influence.
  - b. Check each eye independently for each clue
  - c. For standardization, begin with the subject's left eye
    - 1) Check for the first clue
    - 2) Next, check right eye for same clue
    - 3) Repeat this procedure for each clue starting with left eye, then right eye
    - 4) Compare and document the results
  - d. When we are checking an eye, it is good practice to administer the test by-the-numbers each time, to make sure that no step is overlooked
  - e. Clue No. 1: Lack of Smooth Pursuit
    - 1) The first clue requires that the suspect move the eye to follow the motion of a smoothly moving stimulus
    - 2) The stimulus may be the eraser on a pencil, the tip of a penlight, the tip of your finger, or any similar small object

# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

- 3) Begin by holding the stimulus approximately 12-15 inches (30-38 cm) in front of the suspect's nose, and slightly higher than the level of the suspect's eye
- 4) Move the stimulus smoothly all the way out to the right (checking suspect's left eye first) then move the stimulus smoothly all the way across the suspect's face to the left side (checking the suspect's right eye), then back to center
- 5) Make at least two complete passes with the stimulus
- 6) If a person is not impaired, the eyes should move smoothly as the object is moved back and forth
- 7) If the person is impaired by alcohol and/or some other drugs, the eye should jerk noticeably as it moves back and forth

a) The Mechanics of Clue Number 1

- (1) It is necessary to move the object smoothly in order to check the eye's ability to pursue smoothly
- (2) The stimulus should be moved from center position, all the way out to the right side (checking subject's left eye) where the eye can go no further, and then all the way back across subject's face all the way out to the left side where the eye can go no further
- (3) The object must be moved steadily, at a speed that takes approximately 2 seconds to bring the eye from center to side
- (4) A good practice is to hold the elbow stiff, but slightly bent, and to pivot the entire arm from the shoulder.
- (5) In checking for this clue, make at least two complete passes in front of the eyes
- (6) If you are still not able to determine whether or not the eye is jerking as it moves, additional passes may be made in front of the eyes

b) Conduct Live Demonstration of the Mechanics of Clue No. 1

- (1) Solicit a participant to participate in the live demonstration

- (a) Station the participant-subject in a position where the eyes can easily be seen by the class
- (b) It may be necessary to conduct the demonstration at two or more locations in the class to permit all to see
- (2) Position stimulus approximately 12-15 inches (30-38 cm) in front of nose, slightly higher than eye level
  - (a) Stimulus is moved smoothly from center all the way out to the right
  - (b) Checking subject's left eye
  - (c) Back across subject's face all the way to the left side
  - (d) Checking subject right eye
  - (e) Then back to center
- (3) A second pass is conducted the same as the first

**LOS ANGELES POLICE DEPARTMENT  
Drug Alcohol Recognition Update  
1850-20280**

**Expanded Course Outline**

- (4) On each pass, the arm is moved smoothly, and the eye is taken as far to the side as possible
- c) Participant practice of the mechanics of Clue No. 1
  - (1) Practice in groups of two or three, taking turns
  - (2) Coach and critique participants' practice
  - (3) Participant-led demonstration
    - (a) Choose a participant who appears to be doing a good job in carrying out the procedural mechanics of Clue No. 1
    - (b) Have that participant come forward with a subject to demonstrate the mechanics to the class
- f. Clue No. 2: Distinct and Sustained Nystagmus at Maximum Deviation
  - 1) Once you have completed the check for smooth pursuit, you will test the eyes for distinct and sustained nystagmus when the eye is held at maximum deviation, beginning with the subject's left eye
    - a) The Mechanics of Clue Number 2
      - (1) Demonstrate by positioning the stimulus approximately 12-15 inches (30-38 cm) in front of subject's nose
      - (2) Move the stimulus off to the right side (checking suspect's left eye) until the eye has gone as far as possible
      - (3) Hold the stimulus steady at that position for a minimum of four (4) seconds, and carefully watch the eye
      - (4) Then, move the stimulus back across the subject's face all the way out to the left side (subject's right eye)
      - (5) Hold the stimulus steady and carefully watch the eye
      - (6) If the person is impaired, the eye is likely to exhibit definite, distinct and sustained jerking when held at maximum deviation for a minimum of 4 seconds
      - (7) In order to "count" this clue as evidence of impairment, the nystagmus must be distinct and sustained for a minimum of 4 seconds
      - (8) If you think you see only slight nystagmus at this stage of the test, or if you have to convince yourself that nystagmus is present, then it isn't really there
    - b) Live Demonstration of the Mechanics of Clue No. 2
      - (1) Stimulus initially positioned approximately 12-15 inches (30-38 cm) in front of the participant subject's nose, slightly higher than eye level
      - (2) Stimulus moved to the side, drawing the eye to its maximum deviation. Hold the stimulus steady at that point for a minimum of 4 seconds, to determine whether or not there is distinct and sustained nystagmus
      - (3) Then, move the stimulus back across the subject's face all the way out to the left side (subject's right eye)
      - (4) Hold the stimulus steady and carefully watch the eye
      - (5) Hold the stimulus steady at that point for a minimum of 4 seconds to determine whether or not there is distinct and sustained nystagmus
    - c) Participant practice of the mechanics of Clue No. 2



# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

- (1) Practice in groups of two or three, taking turns
  - (2) Coach and critique participants' practice
    - (a) Conduct Participant-led Demonstrations
    - (b) Allow participant practice to continue until all participants appear reasonably proficient in carrying out the mechanics of Clue No. 2
- g. Clue No. 3: Onset of Nystagmus Prior to 45 Degrees
- 1) Position the stimulus approximately 12-15 inches (30-38 cm) in front of subject's nose (Emphasize officer safety)
  - 2) The angle of onset of nystagmus is simply the point at which the eye is first seen jerking
  - 3) Generally speaking, the higher the BAC, the sooner the jerking will start as the eye moves toward the side
  - 4) If the jerking begins prior to 45-degrees, that person's BAC could be 0.08 or above
  - 5) It is not difficult to determine when the eye has reached the 45-degree point, but it does require some practice
- 
- 6) If you start with the stimulus approximately 12-15 inches (30-38 cm) directly in front of the nose, you will reach 45-degrees when you have moved the stimulus an equal distance to the side
  - 7) Two other important indicators can be used to determine if the eye is within 45 degrees
    - a) At 45 degrees, some white usually will still be visible in the corner of the eye (for most people)
    - b) If you started with the stimulus approximately 12-15 inches (30-38 cm) in front of the suspect, when you reach 45 degrees the stimulus will usually be lined up with, or slightly beyond, the edge of the subject's shoulder
  - 8) The Mechanics of Clue No. 3
    - a) The stimulus is positioned approximately 12-15 inches from (30-38 cm) subject's nose
    - b) It is necessary to move the stimulus slowly to identify the point at which the eye begins to jerk
- 
- c) Start moving the stimulus towards the right side (left eye) at the speed that would take approximately 4 seconds for the stimulus to reach the edge of the suspect's shoulder
  - d) As you are slowly moving the stimulus, watch the eye carefully for any sign of jerking
  - e) When you see the jerking begin, immediately stop moving the stimulus and hold it steady at that position
  - f) With the stimulus held steady, look at the eye and verify that the jerking is continuing
  - g) If the jerking is not evident with the stimulus held steady, you have not located the point of onset. Therefore, resume moving the stimulus slowly toward the side until you notice the jerking again

**LOS ANGELES POLICE DEPARTMENT  
Drug Alcohol Recognition Update  
1850-20280**

**Expanded Course Outline**

- h) When you locate the point of onset of nystagmus, you must determine whether it is prior to 45 degrees
    - (1) Verify that some white is still showing in the corner of the eye
    - (2) Examine the alignment between the stimulus and the edge of the suspect's shoulder
  - 9) Live Demonstration of the Mechanics of Clue No. 3
    - a) Stimulus initially positioned approximately 12-15 inches (30-38 cm) in front of participant subject's nose, slightly higher than eye level
    - b) Slowly move the stimulus toward the side, watching the eye for nystagmus
    - c) Stop the stimulus and hold it steady when nystagmus is first observed
    - d) Verify that the jerking is continuing
    - e) Now determine whether the onset of nystagmus is prior to 45 degrees
      - (1) Is there white still showing in the corner of the eye?
      - (2) Is the stimulus within or only slightly beyond the edge of the shoulder?
  - 10) Participant practice of the mechanics of Clue No. 3
    - a) Practice in groups of two or three, taking turns
    - b) Coaching and critiquing participants practice
    - c) Participant-led demonstration
6. Training Aid: The 45 Degree Template
- a. A training aid has been provided to help you practice estimating a 45 degree angle
  - b. The outline of a square, with its diagonal line, gives us a 45 degree angle
    - 1) This outline, or template, is provided for practice only
    - 2) Demonstrate proper placement of the template
  - c. To use the template, have your training partner hold the corner of the square under the nose
  - d. When you line up your stimulus with the diagonal line, your partner will be looking along a 45 degree angle
7. Participant practice with 45 degree Template
- a. Practice in groups of two or three, taking turns
  - b. Coach and critique participants' practice
  - c. Participant-led demonstration
8. Test Interpretation
- a. Based upon the original developmental research into Horizontal Gaze Nystagmus, the criterion for this test is 4
  - b. If a person exhibits at least 4 out of the possible 6 clues, the implication is a BAC above 0.10
  - c. Using this criterion, the test is 77% accurate
9. Test Demonstration
- a. Choose a student participant to serve as a demonstration subject
  - b. Conduct a complete test of that participant-subject, articulating every step in the testing sequence

**D. Vertical Gaze Nystagmus**

- 1. The Vertical Gaze Nystagmus test is easy to administer

# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

- a. Position the stimulus horizontally, approximately 12-15 inches (30-38 cm) in front of the subject's nose
  - b. Instruct the subject to hold the head still, and follow the stimulus with the eyes only
  - c. Raise the stimulus until the subject's eyes are elevated as far as possible
    - 1) Hold for approximately 4 seconds
    - 2) Watch the eyes closely for jerking as they are held at maximum elevation
    - 3) For VGN to be recorded, it must be distinct and sustained for a minimum of four seconds at maximum elevation
2. Vertical Gaze Nystagmus may be present in subjects under the influence of high doses of alcohol for that individual, and some other drugs

#### E. Walk and Turn

1. Review of Divided Attention Definition
  - a. Walk-and-Turn is a field sobriety test based on the important concept of divided attention
  - b. The test requires the suspect to divide attention among mental tasks and physical tasks
  - c. The mental tasks include comprehension of verbal instructions; processing of information; and, recall of memory
  - d. The physical tasks include balance and coordination; the suspect is required to maintain balance and coordination while standing still, walking, and turning
2. Test Stages
  - a. The Walk-and-Turn test has two stages, the instructions stage and the walking stage
  - b. Both stages are essential parts of the test
  - c. Important evidence of impairment often comes to light during both stages
3. Test Requirements
  - a. The test requires the suspect to take nine heel-to-toe steps in a straight line; to turn around in a prescribed manner; and, to return nine heel-to-toe steps along the line
  - b. This test should be conducted on a reasonably dry, hard, level, non-slippery surface
  - c. The line should be long enough to permit the suspect to take nine heel-to-toe steps along it
  - d. If a line is not available, the officer may create a line
4. Demonstration of the Instructions Stage
  - a. For Standardization Purposes, instruct suspects to place left foot on the line first
  - b. Then instruct suspects to place their right foot on the line, ahead of the left foot, with heel of right against the toe of left
  - c. Tell suspect to place arms down at sides
  - d. Tell suspect to maintain that position until you have completed the instructions
  - e. Inform suspect not to begin walking until told to do so
  - f. At this point, ask suspect: "Do you understand?" Although this position is not a stance that people normally will take of their own choosing, it is not

# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

difficult for an unimpaired person to maintain this stance, even for several minutes

- g. Although this position is not a stance that people nor choosing, it is not difficult for an unimpaired person to maintain this stance, even for several minutes
- h. People who are impaired can maintain this stance if they concentrate their full attention on it
- i. When you are with a suspect who appears to be impaired, you may see the following behaviors during the instructions stage
  - 1) Fail to maintain heel-to-toe stance
  - 2) Starts walking before commanded
- j. Impaired suspects may concentrate so much on maintaining balance there is little or no comprehension of the subsequent instructions

#### 5. Demonstration of the Walking Stage

- a. Walking stage requires nine heel-to-toe steps along the line, a turn, and nine steps back along the line
- b. While walking, keep the arms at the sides, count the steps out loud, and keep watching the feet
- c. Execute Walk-and-Turn

#### 6. Walk-and-Turn Administrative Procedures

- a. Initial verbal instructions
  - 1) Tell suspect to assume the heel-to-toe stance (left foot on line, then right foot on line, ahead of left)
  - 2) Tell suspect to place arms down at sides
  - 3) Tell suspect not to start walking until told to do so
  - 4) Make sure suspect understands instructions
- b. Description of basic test requirements
  - 1) Tell suspect to take nine heel-to-toe steps on the line, to turn around, keeping one foot on the line, and to return nine heel-to-toe steps
  - 2) Demonstrate what you mean by walking heel to-toe. (3 steps suffice for the demonstration)
- c. Description of turn procedures.

- 1) Tell suspect that, on the ninth step, keep the front foot on the line, and turn by taking several small steps with the other foot
- 2) Demonstrate the turn for the suspect

#### d. Final verbal instructions

- 1) Tell suspect that, while walking, to watch feet at all times
- 2) Tell suspect to keep arms at sides at all times
- 3) Tell suspect to count steps out loud

- 4) Tell suspect that, once the walking begins, not to stop until the test is completed
- 5) ASK if suspect understands the instructions. Point out that, if suspect doesn't understand some part of the instructions, officer should repeat only that part which suspect doesn't understand

#### 7. Demonstration of Walk-and-Turn Administrative Procedures

- a. Tell the participant-subject to assume the instructions stance
- b. Tell the participant-subject not to start walking until told to do so
- c. Tell the participant-subject of the requirement to take nine heel-to-toe steps, to turn, and to take another nine heel-to-toe steps

# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

- d. Tell the participant-subject of the required turn procedures
  - 1) Demonstrate the proper turn
  - 2) Give the participant-subject the final verbal instructions
    - a) Keep watching feet
    - b) Count steps out loud
    - c) Arms at sides
    - d) Don't stop walking until test is completed
  - e. ASK participant-subject if instructions are understood
- 8. Clues for Walk-and-Turn Test
  - a. When administering the Walk-and-Turn test, we look for certain specific behaviors, at certain times in the test
  - b. Each behavior, or action, is considered as one clue
  - c. Each behavior, or action, is considered as one clue
  - d. The first two clues are checked during the instructions stage
    - 1) Can't balance during instructions
    - 2) Starts too soon
  - e. The next four clues are checked while the suspect is walking, either up or down the line
    - 1) Stops while walking (pauses to regain balance)
    - 2) Misses heel-to-toe
    - 3) Steps off the line
    - 4) Uses arms to balance
  - f. The next clue is an improper turn
    - 1) This clue should be recorded if the suspect
    - 2) Loses balance on turn (staggers, stumbles, etc.); or
    - 3) Turns other than the way officer demonstrated
  - g. The next clue is checked on the basis of the number of steps that the suspect actually takes
    - 1) If the suspect takes other than nine steps, in either direction, it is considered only one clue
    - 2) The test may be terminated if the suspect cannot safely complete it.  
For example
      - a) Suspect steps off the line three or more times
      - b) Suspect nearly falls
      - c) Suspect gets into a "leg- lock" position (legs crossed, unable to move)
- 9. Walk-and-Turn Test Interpretation
  - a. Based on the original developmental research into the Walk-and-Turn test, the criterion for this test is 2
  - b. If a person exhibits at least 2 out of the possible 8 clues, the implication is that the suspect has a BAC above 0.10
  - c. Using that criterion, this test is 68% accurate
    - 1) Restrictions
    - 2) NOTE: The original research indicated that individuals over 65 years of age had difficulty performing this test
- 10. Test Demonstrations
  - a. Choose a participant to serve as a demonstration subject
  - b. Conduct a complete test of the participant-subject, carefully carrying out all of the administrative procedures
  - c. Have the participant-subject actually perform the walking stage of the test
  - d. Discuss the participant-subject's performance in terms of the test scoring factors

## LOS ANGELES POLICE DEPARTMENT

### Drug Alcohol Recognition Update

1850-20280

#### Expanded Course Outline

- e. If time permits, conduct another demonstration using another participant-subject
- F. Combining the Clues of the Horizontal Gaze Nystagmus and Walk-and-Turn
  1. Based on the original research
  2. You will be 80% accurate in classifying suspects that are above 0.10
- G. One-Leg Stand
  1. Review of Divided Attention definition
    - a. One-Leg Stand is another field sobriety test that employs divided attention
    - b. The suspect's attention is divided among such simple tasks as balancing, listening, and counting out loud
    - c. Although none of these is particularly difficult in itself, the combination can be very difficult for someone who is impaired
  2. Test Stages
    - a. Like all divided attention tests, One-Leg Stand has two stages
    - b. They are the instructions stage and the balance and counting stage
    - c. Both stages are important, because they can affect the suspect's overall performance on the test
  3. Test Requirements
    - a. The test requires the suspect to stand on one leg, with the other leg held out straight, approximately six inches (15 cm) off the ground, for 30 seconds
    - b. This test should be conducted on a reasonably hard, dry, level, and non-slippery surface
  4. Demonstration of the Instructions Stage
    - a. The Instructions stage of this test is quite simple
      - 1) suspect stands with feet together
      - 2) suspect keeps arms at the sides
    - b. Suspect is instructed to maintain that position until told otherwise
  5. Demonstration of balance and count stage
    - a. The verbal instructions for this test also are quite simple
      - 1) Suspect must raise one leg, either leg, with the foot approximately six inches (15 cm) off the ground, keeping raised foot parallel to the ground
      - 2) Suspect is told to keep both legs straight with arms at their sides
      - 3) Suspect is told to look at the elevated foot
      - 4) Suspect is told to hold that position while counting out loud in the following manner: "one thousand and one, one thousand and two, one thousand and three, and so on, until told to stop"
  6. One-Leg Stand Administrative Procedures
    - a. Instructions stage
      - 1) Stand with feet together
      - 2) Keep arms at side
      - 3) Maintain position until told otherwise
    - b. Balance and counting stage
      - 1) Raise one leg, either leg
      - 2) Keep raised foot approximately 6 inches (15 cm) off the ground, foot parallel to the ground
      - 3) Keep both legs straight and arms at sides
      - 4) Keep eyes on elevated foot
      - 5) Count out loud from one-thousand-and-one, one-thousand-and-two, and one-thousand-and-three, and so on until told to stop

**LOS ANGELES POLICE DEPARTMENT**  
**Drug Alcohol Recognition Update**  
**1850-20280**

**Expanded Course Outline**

7. Demonstration of the One-Leg Stand Administrative Procedures
    - a. Instructions stage: tell subject to
      - 1) stand with feet together
      - 2) keep arms at side
      - 3) maintain that position until told otherwise (ask if understands)
    - b. Balance and counting stage
      - 1) Raise one leg (either leg), approximately 6 inches (15 cm) off the ground, foot pointed out
      - 2) Keep both legs straight
      - 3) Keep eyes on elevated foot
      - 4) While holding that position, count out loud in the following manner: one-thousand-one, one to one-thousand-two, one-thousand-three until told to stop
  8. Clues for the One-Leg Stand
    - a. When administering the one-leg stand test, we look for certain specific behaviors
    - b. Each behavior or action is considered one clue
    - c. There are a maximum number of 4 clues on this test
    - d. The first clue is swaying
    - e. The next clue is using the arms to balance
    - f. The next clue is hopping
    - g. The next clue is putting the foot down, before 30 seconds elapse
      - 1) If suspect's foot touches ground
      - 2) Have suspect raise it and continue counting until told to stop
    - h. The test may be terminated if the suspect cannot safely complete it. For example
      - 1) Suspect puts foot down three or more times
      - 2) Suspect nearly falls
  9. Test Interpretation
    - a. Based on the original developmental research for the One-Leg Stand test, the criterion for this test is 2
    - b. If the person exhibits at least 2 out of the possible 4 clues, the implication is that the suspect's BAC is above 0.10
    - c. Using that criterion, this test is 65% accurate
      - 1) Restrictions
      - 2) NOTE: The original research indicated that individual over 65 years of age or 50 pounds or more overweight had difficulty performing this test
  10. Test Demonstrations
    - a. Choose a student participant to serve as a demonstration subject
    - b. Conduct a complete test of the participant-subject, carefully carrying out all of the administrative procedures
    - c. Have the participant-subject actually perform the One leg stand
    - d. Discuss the participant-subject's performance in terms of the test scoring factors
    - e. If time permits, conduct another demonstration using another participant-subject
- H. Limitations of the Three Tests
1. Nystagmus limitations
    - a. A small percentage of people may exhibit nystagmus, due to certain pathological disorders

# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

- b. Some suspects may exhibit Horizontal Gaze Nystagmus due to the use of alcohol and certain other drugs
- c. A small percentage of individuals may exhibit natural nystagmus
- 2. Divided Attention test limitations
  - a. Both the Walk-and-Turn test and the One-Leg Stand test require a reasonably smooth, level surface
  - b. Persons with injuries to their backs, legs, or inner ear dis-orders, may have difficulty with these tests or with other balance tests
- I. Taking Field Notes on the Standardized Field Sobriety Tests
  - 1. For purposes of the arrest report and courtroom testimony, it is not enough to report the number of clues on the three tests
    - a. The numbers are important to the police officer in the field, because they help determine whether there is probable cause to arrest
    - b. But to secure a conviction, more descriptive evidence is needed
    - c. The officer must be able to describe how the suspect performed on the tests, and what the suspect did
  - 2. The standard note-taking guide is designed to help develop a clear description of the suspect's performance on the tests
  - 3. The section on the pre-arrest screening appears at the bottom of the guide's front side
    - a. Complete the entire procedure for both eyes, writing "yes" or "no" for each clue
      - 1) Write "yes" if the clue is present
      - 2) Write "no" if the clue is not present
    - b. After both eyes have been completely checked, total the number of HGN clues observed
    - c. In the section labeled "other", record any facts, circumstances, conditions or observations that may be relevant to this procedure
      - 1) Examples of additional evidence of impairment emerging while checking for nystagmus
        - a) suspect unable to keep head still
        - b) suspect swaying noticeably
        - c) suspect utters incriminating statements
      - 2) Examples of conditions that may interfere with suspect's performance while checking for nystagmus
        - a) wind, dust, etc. (irritating suspect's eyes)
        - b) visual or other distractions impeding the test
  - 4. The section on the Walk-and-Turn test appears at the top of the guide's back side
    - a. First two clues are checked only during the instructions stage
      - 1) In the boxes provided write number of times the clue appears during the instructions stage
      - 2) Example: if suspect loses balance twice during the instructions stage, write "2" in that box
      - 3) Example: if the suspect does not start too soon, write "0" in that box
    - b. Record the next four clues separately for each nine steps
    - c. If suspect stops walking, record it by drawing a vertical line across the toe at the step at which the stop occurred. Do this for each nine steps
      - 1) How many times during first nine steps
      - 2) How many times during second nine steps
    - d. If suspect fails to touch heel-to-toe, record how many times this happens



# LOS ANGELES POLICE DEPARTMENT

## Drug Alcohol Recognition Update

1850-20280

### Expanded Course Outline

- e. If suspect steps off the line while walking, record it by drawing a line from the appropriate footprint at the angle in the direction in which the foot stepped. Do this for each nine steps
  - f. If suspect uses arms to balance, give some indication of how often or how long this happens
    - 1) Example: suspect raised arms from sides three times
    - 2) Example: suspect held arms away from sides during steps 3 through 7
    - 3) Example: suspect "flapped" arms continuously
  - g. Record the actual number of steps taken by suspect, in each direction
  - h. For the next clue, "the turn," record a description of the turn
    - 1) Example: turned incorrectly
    - 2) Example: stumbled, to left
    - 3) Example: wrong direction
    - 4) Example: no small steps
  - i. If you terminate the test because the suspect "cannot perform test" indicate why
    - 1) Example: off line 3 times
    - 2) Example: staggered six steps to right, nearly fell
    - 3) Example: "leg-locked" after fifth step
  - j. At end of the test, examine each factor and determine the total number of clues recorded
  - k. In the section labeled "other", record any facts, circumstances, conditions or observations that may be relevant to this test
    - 1) Examples of additional evidence of impairment emerging during Walk-and-Turn test
      - a) suspect verbally miscounts steps
      - b) suspect utters incriminating statements
    - 2) Examples of conditions that may interfere with suspect's performance of the Walk-and-Turn test
      - a) wind/weather conditions
      - b) suspect's age
      - c) suspect's footwear
5. The section on the One-Leg Stand test appears midway down the page
- a. Record the suspect's performance separately
  - b. For each clue, record how often it appears
  - c. If suspect sways, indicate how often with a check mark
  - d. Indicate above the feet the number they were counting when they put their foot down
  - e. Check marks should be made to indicate the number of times the suspect swayed, used arms, hopped or put foot down
    - 1) Place check marks in or near the small boxes to indicate how many times you observed each of the clues
    - 2) In addition, if the suspect puts the foot down during the test, record when it happened. To do this, write the count number at which the foot came down
    - 3) For example, suppose that, when standing on the left leg, the suspect lowered the right foot at a count of "one thousand and thirteen," and again at "one thousand and twenty;" Your diagram should look like the sketch to the right
  - f. If suspect uses arms to balance, indicate how often arms were raised
  - g. If suspect hops, indicate how many hops were taken. If suspect puts foot own, indicate how many times the foot came down

**LOS ANGELES POLICE DEPARTMENT**  
**Drug Alcohol Recognition Update**  
**1850-20280**

**Expanded Course Outline**

- h. If you terminate the test for "cannot perform test", indicate explicitly why you did so
- i. At end of the test, examine each clue and determine how many clues have been recorded
- j. Write the number in the "total clues" box
- k. In the section labeled "other", record any facts, circumstances, conditions or observations that may be relevant to this test
  - 1) Examples of additional evidence of impairment emerging during one-leg stand test
    - a) suspect verbally miscounts 30 seconds
    - b) suspect utters incriminating statements
  - 2) Examples of conditions that may interfere with suspect's performance of one-leg stand
    - a) wind/weather conditions
    - b) suspect's age
    - c) suspect's footwear

**J. LEARNING ACTIVITY: Practical Application**

**PURPOSE:** To provide the student with a practical application of Standardized Field Sobriety Test

**PROCEDURE:**

- 1. Instructors will circulate among teams to observe and coach Participants' performance as necessary
- 2. Practice is to continue until every student has administered a complete series of the three tests at least once
- 3. Live Administration of SFST Battery
- 4. Have Instructor to conduct the three standardized field sobriety tests on an instructor
- 5. Participants to observe technique and scoring only
- 6. Participants carry out "dry run" practice procedures

**K. LEARNING ACTIVITY: Test Your Knowledge Worksheet- (SFST Manual VIII)**

**PURPOSE:** To gage the students' knowledge

**PROCEDURE:**

- 1. Using the SFST Manual IIII
- 2. Allow participants approximately 10 minutes to complete
- 3. Have students complete the questions as a form of review
- 4. Using the Answer key, have the attending Instructors will provide the answers
- 5. The students will complete the worksheet using the information learned during this session

**VI. TESTING**

**(1.5 hrs.)**

**A. Procedures and Group Assignments**

- 1. Assign participant to work in teams of three or four
- 2. Each student will conduct a complete series of tests
- 3. The Instructors will use a testing rubric/ check list to grade the students on
  - a. Horizontal and Vertical Gaze Nystagmus
  - b. Walk and Turn
  - c. One Leg Stand
- 4. Each student will conduct a complete series of tests, using a fellow team member as a subject
  - a. Horizontal and Vertical Gaze Nystagmus

**LOS ANGELES POLICE DEPARTMENT**

**Drug Alcohol Recognition Update**

**1850-20280**

**Expanded Course Outline**

- b. Walk-and-Turn
- c. One-Leg Stand
- 5. Team members who are not immediately participating in a series of tests (either as test administrator or as test subject) are expected to take notes on test administrator's performance, and to offer constructive criticism
- 6. Once one team member has administered a complete series of tests, other members of the team follow in turn
- B. Closing and Certificate Presentation
  - 1. The instructors will provide parting words
  - 2. Students who have successfully passed will be given a certificate of completion