

Session 6: Phase Two: Personal Contact

Interview/Questioning Techniques

- Asking for two things simultaneously
- Asking interrupting or distracting questions
- Asking unusual questions



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D. Interview/Questioning Techniques

There are a number of techniques you can use to assess impairment while the driver is still behind the wheel. Most of these techniques apply the concept of divided attention. They require the driver to concentrate on two or more things at the same time. They include both questioning techniques and psychophysical (mind/body) tasks.

These techniques are not as reliable as the Standardized Field Sobriety Tests but they can still be useful for obtaining evidence of impairment. **THESE TECHNIQUES DO NOT REPLACE THE SFSTs.**

Questioning Techniques

The questions you ask and the way in which you ask them can constitute simple divided attention tasks. Three techniques are particularly pertinent:

- Asking for two things simultaneously
- Asking interrupting or distracting questions
- Asking unusual questions.

An example of the first technique, asking for two things simultaneously, is requesting the driver to produce both the driver's license and the vehicle registration. Possible evidence of impairment may be observed as the driver responds to this dual request. Be alert for the driver who:

Session 6-Phase Two: Personal Contact

Test Your Knowledge

The two major evidence gathering tasks of Phase Two are _____

The major decision of Phase Two is _____

Among the describable clues an officer might see during the Phase Two interview are: A.
B.
C.




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Session 6-Phase Two: Personal Contact

Test Your Knowledge

Among the describable clues an officer might hear during the Phase Two interview are:




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TEST YOUR KNOWLEDGE

INSTRUCTIONS: Complete the following sentences.

1. The two major evidence gathering tasks of Phase Two are

2. The major decision of Phase Two is

3. Among the describable clues an officer might see during the Phase Two interview are:

4. Among the describable clues an officer might hear during the interview are:

Session 6-Phase Two: Personal Contact

Test Your Knowledge

Among the describable clues an officer might *smell* during the Phase Two interview are:



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Session 6-Phase Two: Personal Contact

Test Your Knowledge

Three techniques an officer might use in asking questions that constitute simple divided attention tasks.

The Countdown Technique requires the subject to:



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Session 6-Phase Two: Personal Contact

Test Your Knowledge

Leaning against the vehicle is a clue to DWI which may be observed during _____



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5. Among the describable clues an officer might smell during the interview are:

6. There are three techniques an officer might use in asking questions that constitute simple divided attention tasks. These techniques are:

7. The Count Down Technique requires the driver to _____.

8. Leaning against the vehicle is a clue to DWI which may be observed during the _____.

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Participant Manual

DWI Detection and Standardized Field Sobriety Testing (SFST)

Session 7 - Phase Three: Pre-Arrest Screening

40 Minutes

Session 7

Phase Three: Pre-Arrest Screening



DWI Detection and Standardized Field Sobriety Testing

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Nystagmus Indications

- Six maximum clues
- Maximum three clues per eye
- 77% accurate detecting subjects ≥ 0.10 BAC based on original research



-
- When the HGN test is administered always begin with subject's left eye. Each eye is examined for three specific clues.
 - As the eye moves from side to side, does it move smoothly or does it jerk noticeably? (As people become impaired by alcohol, their eyes exhibit a lack of smooth pursuit as they move from side to side.)
 - When the eye moves as far to the side as possible and is kept at that position for four seconds, does it jerk distinctly? (Distinct and sustained nystagmus at maximum deviation is another clue of impairment.)
 - As the eye moves toward the side, does it start to jerk prior to a 45 degree angle? (Onset of nystagmus prior to 45 degrees is another clue of impairment.)
 - As a person's blood alcohol concentration increases it is more likely these clues will appear.
 - The maximum total number of clues is six. The maximum number of clues that may appear in one eye is three.
 - The original research was conducted by the Southern California Research Institute (SCRI) and used to develop the initial curriculum showing this test was 77% accurate at detecting subjects at or above a 0.10 BAC.
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Session 7 - Phase Three: Pre-Arrest Screening

Divided Attention

Concentrating on more than one thing at a time (mental tasks and physical tasks)



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E. Divided Attention Tests: Concepts, Examples, Demonstration

Many of the most reliable and useful psychophysical tests employ the concept of divided attention: they require the subject to concentrate on more than one thing at a time (mental tasks and physical tasks). Driving is a complex divided attention task. In order to operate a vehicle safely, subjects must simultaneously control steering, acceleration and braking; react appropriately to a constantly changing environment; and perform many other tasks.

Alcohol and many other drugs reduce a person's ability to divide attention. Impaired subjects often ignore the less critical tasks of driving in order to focus their impaired attention on the more critical tasks. For example, a subject may ignore a traffic signal and focus instead on speed control.

Even when impaired, many people can handle a single, focused attention task fairly well. For example, a subject may be able to keep the vehicle well within the proper traffic lane as long as the road remains fairly straight. However, most people, when impaired, cannot satisfactorily divide their attention to handle multiple tasks at the same time.

The concept of divided attention has been applied to psychophysical testing. Field sobriety tests that simulate the divided attention characteristics of driving have been developed and are being used by law enforcement agencies nationwide. The best of these tests exercise the same mental and physical capabilities that a person needs to drive safely.

PBT Advantages

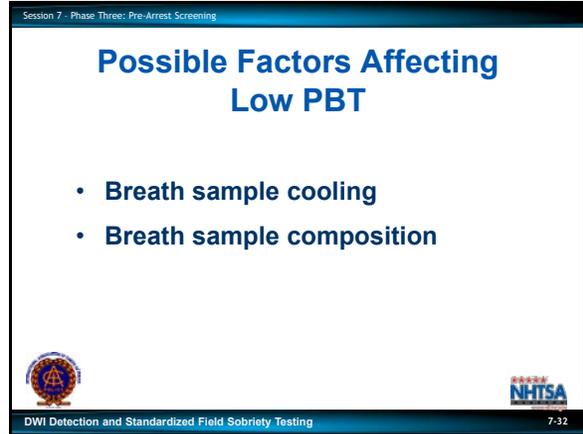
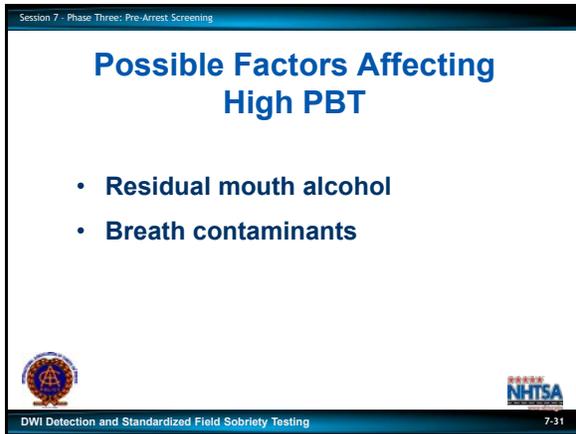
- Corroborate other evidence
- Confirm officer's judgment
- Confirm alcohol as cause of impairment
- Help establish probable cause for DWI arrest



PBT Advantages

A PBT offers several important advantages for DWI detection. It may:

- Corroborate other evidence by demonstrating that the suspicion of alcohol impairment is consistent with the officer's observations of the subject's mental and physical impairment.
- Confirm the officer's own judgment and help gain confidence in evaluating alcohol impairment accurately, based on observations and psychophysical tests. (Many officers experienced in DWI enforcement find that they rely less and less on the PBT as their confidence in their own powers of detection increases).
- Disclose the possibility of medical complications or impairment due to drugs other than alcohol. (The PBT can confirm or deny that alcohol is the cause of the observed impairment. For example, observed psychophysical impairment coupled with a PBT result showing a very low BAC indicates an immediate need to investigate the possibility that the subject has ingested a drug other than alcohol or suffers from a medical problem).
- Help to establish probable cause for a DWI arrest. (The role of the PBT in establishing probable cause may be affected by the evidentiary value of PBT results in your state. Consult your specific PBT law, your supervisor, or the local prosecutor for clarification, if necessary).



There are two common factors that tend to produce high results on a PBT.

Residual mouth alcohol. After a person takes a drink, some of the alcohol will remain in the mouth. If the person exhales soon after drinking, the breath sample will pick up some of this left over mouth alcohol. In this case, the breath sample will contain an additional amount of alcohol and the test result will be higher than the true BAC.

It takes approximately 15 minutes for the residual alcohol to be eliminated from the mouth.

The only sure way to eliminate this factor is to make sure the subject does not consume any alcohol for at least 15 to 20 minutes before conducting a breath test. Remember, too, most mouthwashes, breath sprays, cough syrups, etc., contain alcohol and may produce residual mouth alcohol. Therefore, do not permit the subject to put anything in their mouth for at least 15 to 20 minutes prior to testing.

Breath Contaminants. Some types of preliminary breath tests might react to certain substances other than alcohol. For example, substances such as ether, chloroform, acetone, acetaldehyde and cigarette smoke may produce a positive reaction on certain devices. If so, the test would be contaminated and its result would be higher than the true BAC. Normal characteristics of breath samples, such as halitosis (bad breath), food odors, etc., do not affect accuracy.

PBT instruments have accuracy limitations. Although all PBT instruments currently used by law enforcement are reasonably accurate, they are subject to the possibility of error, especially if they are not used properly. There are factors that can affect the accuracy of preliminary breath testing devices. Some of these factors tend to produce "high" test results; others tend to produce "low" results.

There are two common factors that tend to produce low PBT results.

Breath sample cooling. If the captured breath sample is allowed to cool before it is analyzed, some of the alcohol vapor in the breath may turn to liquid and precipitate out of the sample. If that happens, the subsequent analysis of the breath sample will produce a low BAC result.

Breath sample composition. Breath composition means the mixture of the tidal breath and alveolar breath. Tidal breath is breath from the upper part of the lungs and the mouth. Alveolar breath is deep lung breath. Breath testing should be conducted on a sample of alveolar breath, obtained by having the subject blow into the PBT instrument until all air is expelled from the lungs.

Session 7 - Phase Three: Pre-Arrest Screening

The Arrest Decision is Based on All Evidence Accumulated During All Three Detection Phases

Initial Observation of Vehicle Operation Observation of the Stop

Face to Face Observation and Interview Observation of the Exit

Psychophysical Tests

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G. The Arrest Decision

Your arrest/no arrest decision is the culmination of the DWI detection process. That decision is based on all of the evidence that has come to light since your attention was first drawn to the vehicle or individual.

PHASE ONE:

- Initial observation of vehicle in motion
- Observation of the stop.

PHASE TWO:

- Face to face observation and interview
- Observation of the exit.

PHASE THREE:

- SFSTs
- Preliminary breath tests.

Your decision involves a careful review of each of the observations you have made. Conduct a "mental summary" of the evidence collected during vehicle in motion, personal contact and pre-arrest screening. If all of the evidence, taken together, establishes probable cause to believe that a DWI offense has been committed, you should arrest the subject.

Session 7 - Phase Three: Pre-Arrest Screening

Test Your Knowledge

1. The two major evidence gathering tasks of Phase Three are _____ and _____
2. The major decision in Phase Three is _____
3. The entire DWI detection process culminates in _____
4. Divided attention tests require the subject to _____




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Session 7 - Phase Three: Pre-Arrest Screening

Test Your Knowledge

5. Among the mental and physical capabilities a person needs to drive safely are these four:
 - A.
 - B.
 - C.
 - D.
6. The two stages of the Walk and Turn are:
 - A.
 - B.




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TEST YOUR KNOWLEDGE

INSTRUCTIONS: Complete the following sentences.

1. The two major evidence gathering tasks of Phase Three are:

2. The major decision in Phase Three is _____

3. The entire DWI detection process culminates in _____.

4. Divided attention tests require the subject to _____.

5. Among the mental and physical capabilities a person needs to drive safely are these four:

6. The two stages of the Walk and Turn are:

Session 7 - Phase Three: Pre-Arrest Screening

Test Your Knowledge

7. The two stages of the One Leg Stand are:
A.
B.

8. The purpose of PBT is _____

9. Two factors that produce high results on a PBT are:
A.
B.



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Session 7 - Phase Three: Pre-Arrest Screening

Test Your Knowledge

10. Two factors that produce low results on a PBT are:
A.
B.



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7. The two stages of the One Leg Stand are:

8. The purpose of PBT is

9. Two factors that produce high results on a PBT are:

10. Two factors that produce low results on a PBT are:

Session 7 - Phase Three: Pre-Arrest Screening

QUESTIONS?



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Participant Manual

DWI Detection and Standardized Field Sobriety Testing (SFST)

Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

3 Hours 20 Minutes

Session 8

Concepts and Principles of the Standardized Field Sobriety Tests (SFST)



DWI Detection and Standardized Field Sobriety Testing

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

Learning Objectives

- Discuss the development and validity of the research and the standardized elements, clues and interpretation of the three Standardized Field Sobriety Tests
- Discuss types of nystagmus and their effects on the Horizontal Gaze Nystagmus test




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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

Learning Objectives

- Proper administration of the three Standardized Field Sobriety Tests
- Recognize clues of the three SFST Tests
- Describe and record results of the three SFSTs on a standard note taking guide
- Identify the limitations of the three SFSTs




DWI Detection and Standardized Field Sobriety Testing 8-3

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

- Discuss the development and validity of the research and the standardized elements, clues and interpretation of the three Standardized Field Sobriety Tests.
- Discuss the different types of nystagmus and their effects on the Horizontal Gaze Nystagmus test.
- Discuss and properly administer the three Standardized Field Sobriety Tests.
- Discuss and properly recognize the clues of the three Standardized Field Sobriety Tests.
- Describe in a clear and convincing manner and properly record the results of the three Standardized Field Sobriety Tests on a standard note taking guide.
- Identify the limitations of the three SFSTs.

CONTENT SEGMENTS..... LEARNING ACTIVITIES

- A. Overview: Development and Validation Instructor-Led Demonstration
- B. SFST Field Validation Studies Participant Practice Session and
- C. Horizontal Gaze Nystagmus Demonstration
- D. Vertical Gaze Nystagmus
- E. Walk and Turn
- F. One Leg Stand
- G. Taking Field Notes on the Standardized Field Sobriety Tests

Original Research Objectives

- Evaluate currently used physical coordination tests to determine their relationship to intoxication and driving impairment
- Develop more sensitive tests that would provide more reliable evidence of impairment
- Standardize the tests and observations



The original research objectives were to:

- Evaluate currently used physical coordination tests to determine their relationship to intoxication and driving impairment
- Develop more sensitive tests that would provide more reliable evidence of impairment
- Standardize the tests and observations.

Beginning in late 1975, extensive scientific research studies were sponsored by NHTSA through a contract with the Southern California Research Institute (SCRI) to determine which roadside field sobriety tests were the most accurate. SCRI published the following three reports:

- California: 1977 (Lab)
- California: 1981 (Lab and Field)
- Maryland, District of Columbia, Virginia, North Carolina: 1983 (Field)

Volunteers Were Subjected to Six Tests

- One Leg Stand
- Finger to Nose
- Finger Count
- Walk and Turn
- Tracing (a paper and pencil exercise)
- Nystagmus (called alcohol gaze nystagmus in final report)



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.

1. One Leg Stand
2. Finger to Nose
3. Finger Count
4. Walk and Turn
5. Tracing (a paper and pencil exercise)
6. Nystagmus (called alcohol gaze nystagmus in final report).

Laboratory research indicated that three of these tests, when administered in a standardized manner, were a highly accurate and reliable battery of tests for distinguishing BACs at or above 0.10; Horizontal Gaze Nystagmus (HGN), Walk and Turn (WAT), and One Leg Stand (OLS).

The research showed that these three tests were the most accurate and the remaining tests were merely reassessing the same skills.

While many field sobriety tests are valid tests, the Standardized Field Sobriety Tests have been validated through numerous research studies.

Original SCRI Test Data Results

- HGN by itself was 77% accurate
- Walk and Turn was 68% accurate
- One Leg Stand was 65% accurate



NHTSA analyzed the original SCRI research laboratory test data and found:

- HGN, by itself, was 77% accurate
- WAT, by itself, was 68% accurate
- OLS, by itself, was 65% accurate

Third Phase: Field Validation and Standardization Objectives

- Develop standardized, practical and effective procedures for police officers to use in reaching arrest/no arrest decisions
- Test the feasibility of the procedures in enforcement conditions
- Determine if tests discriminate in the field, as well as in the laboratory



B. SFST Field Validation Studies

The final phase of this study was conducted as a field validation.

- Standardized, practical and effective procedures were developed
- Determine the feasibility of the procedures for these tests in actual enforcement conditions
- The tests were determined to discriminate in the field, as well as in the laboratory.

Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

Correct Decision

	Arrested Subject	Did Not Arrest Subject
Above Illegal Per Se Limit	I Officer decided to arrest the subject <u>and</u> their BAC was <u>above</u> the illegal per se limit	II Officer decided <u>not</u> to arrest the subject and their BAC was <u>above</u> the illegal per se limit
Below Illegal Per Se Limit	III Officer decided to arrest the subject <u>but</u> their BAC was <u>below</u> the illegal per se limit	IV Officer decided <u>not</u> to arrest the subject and their BAC was <u>below</u> the illegal per se limit




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Figure 1: Matrix of possible arrest decisions illustrates the four different decisions which are present in all the validation studies. There are four quadrants, each representing a different decision. The quadrants (I and IV) represent a correct arrest decision.

The remaining subjects, incorrect arrest decisions, fall into two other categories. Members of the first group were not arrested, but tested above the illegal per se limit for BAC (quadrant II). The Colorado Study noted that a number (approximately 33%) of these individuals were considered alcohol tolerant and performed well on the SFSTs even though their BACs were above the illegal per se limit. Although these release decisions were recorded as errors based on the procedures outlined in the study, this non arrest decision ultimately benefited the driver.

The subjects in quadrant III were arrested, but their BAC was below the illegal per se limit. Many states stipulate in their statute that a driver is considered DWI if they are either above the illegal per se limit for BAC or have lost the normal use of their mental or physical faculties. Even though the arrests in quadrant III are legally justifiable according to an individual state's statute, these decisions are recorded as errors in the research based on the procedures outlined in the study.

Each of these studies have shown that the SFST three test battery is a scientifically validated and reliable method for distinguishing between impaired and unimpaired drivers.

San Diego Field Validation Study of SFST

Based on this study:

- HGN was 88% accurate
- WAT was 79% accurate
- OLS was 83% accurate



- HGN was 88% accurate
- WAT was 79% accurate
- OLS was 83% accurate

The results of this study provide clear evidence of the validity of the three test battery to support arrest decisions at above or below 0.08. It strongly suggests that the SFSTs also identify BACs at 0.04 and above.

Results: Three SFST 1990's Field Studies

Study..... % Correct

Colorado 86% Arrest / Release Decisions

Florida..... 95% Arrest Decisions

San Diego 91% Arrest Decisions

It is necessary to emphasize this validation applies only when:

- The tests are administered in the prescribed, standardized manner,
- The standardization clues are used to assess the suspect's performance,
- The standardization criteria are employed to interpret that performance.

If any one of the SFST elements is changed, the validity may be compromised.

Categories of Nystagmus

- Vestibular
- Neural
- Pathological Disorders and Diseases



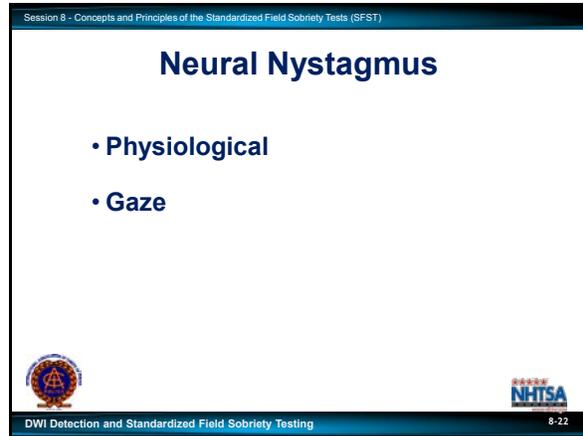
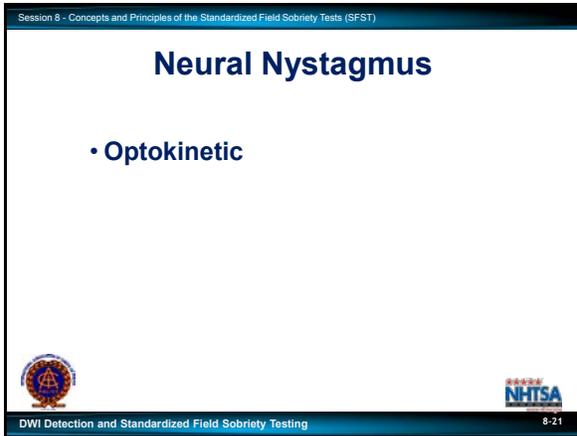
Categories of Nystagmus

Horizontal Gaze Nystagmus is not the only kind of nystagmus. There are other circumstances under which the eyes will jerk involuntarily.

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.

Nystagmus of several different origins may be seen. The three general categories of nystagmus are:

- Vestibular
- Neural
- Pathological Disorders and Diseases



Nystagmus can also result directly from neural activity:

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.

Examples of optokinetic nystagmus include watching strobe lights, rotating lights, or rapidly moving traffic in close proximity. The Horizontal Gaze Nystagmus test will not be influenced by optokinetic nystagmus when administered properly. During the Horizontal Gaze Nystagmus test, the suspect is required to fixate the eyes on a penlight, pencil or similar object that moves in accordance with the HGN testing procedures, thus optokinetic nystagmus will not occur. The movement of the stimulus and the fixation on the stimulus by the subject precludes this form of nystagmus from being observed by the officer.

Physiological Nystagmus is a natural nystagmus that keeps the sensory cells of the eye from tiring. It is the most common type of nystagmus. It happens to all of us, all the time. This type of nystagmus produces extremely minor tremors or jerks of the eyes. These tremors are usually too small to be seen with the naked eye. Physiological nystagmus will have no impact on our Standardized Field Sobriety Tests, because it's tremors are usually invisible.

Gaze Nystagmus is a form of nystagmus that occurs when the eyes attempt to maintain visual fixation on a stimulus.

Gaze Nystagmus

- Horizontal
- Vertical
- Resting



For our purposes, gaze nystagmus is separated into three types:

- Horizontal
- Vertical
- Resting

Medical Impairment

- Equal pupil size
- Resting nystagmus
- Equal tracking



Medical Impairment

The examinations that you conduct to assess possible medical impairment include:

- Equal pupil size
- Resting nystagmus
- Equal tracking

Pupil size will be affected by some medical conditions or injuries. If the two pupils are distinctly different in size, it is possible that the subject:

- Has a prosthetic eye
- Is suffering from a head injury
- Has a neurological disorder

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.

Resting nystagmus may also be a medical problem.

Tracking ability will be affected by certain medical conditions or injuries involving the brain.

This observation is a medical assessment. If the two eyes do not track together, the possibility of a serious medical condition or injury is present.

HGN Testing: Three Clues

- Lack of smooth pursuit
- Distinct and sustained Nystagmus at maximum deviation
- Onset of Nystagmus prior to 45 degrees



Procedures of Horizontal Gaze Nystagmus Testing: The Three Clues

The test you will use at roadside is "Horizontal Gaze Nystagmus" -- an involuntary jerking of the eyes occurring as the eyes gaze to the side. When a person is impaired by alcohol or certain drugs, some jerking will be seen if the eyes are moved far enough to the side.

- The Lack of Smooth Pursuit (Clue Number One) - The eyes can be observed to jerk or "bounce" as they follow a smoothly moving stimulus, such as a pencil or penlight. The eyes of an impaired person will not follow smoothly, i.e., a marble rolling across sand paper, or windshield wipers moving across a dry windshield.
- Distinct and Sustained Nystagmus At Maximum Deviation (Clue Number Two) - Distinct and sustained nystagmus is evident when the eye is held at maximum deviation for a minimum of four seconds and continues to jerk toward the side.
- Onset of Nystagmus Prior To 45 Degrees (Clue Number Three) - The point at which the eye is first seen jerking. If the jerking begins prior to 45 degrees it is evident that the person has a BAC above 0.08, as shown by recent research.

The higher the degree of impairment, the sooner the nystagmus will be observable.

Administrative Procedures

- Check for eyeglasses
- Verbal instructions
- Position stimulus (12-15 inches and slightly above eye level)
- Check for equal pupil size and resting nystagmus
- Check for equal tracking
- Lack of smooth pursuit
- Distinct and sustained nystagmus at maximum deviation
- Onset of nystagmus prior to 45 degrees
- Total the clues
- Check for vertical nystagmus



Horizontal and Vertical Gaze Nystagmus can be observed directly and does not require special equipment. You will need a contrasting stimulus for the subject to follow with their eyes. This can be a penlight or pen. The stimulus used should be held slightly above eye level, so that the eyes are wide open when they look directly at it. It should be held approximately 12 - 15 inches in front of the nose. Remain aware of your position in relation to the subject at all times.

OFFICER SAFETY IS THE NUMBER ONE PRIORITY ON ANY TRAFFIC STOP.

Administrative Procedures

- Check for eyeglasses
 - Verbal instructions
 - Position stimulus (12-15 inches and slightly above eye level)
 - Check for equal pupil size and resting nystagmus
 - Check for equal tracking
 - Lack of smooth pursuit
 - Distinct and sustained nystagmus at maximum deviation
 - Onset of nystagmus prior to 45 degrees
 - Total the clues
 - Check for vertical nystagmus
-
-
-
-
-
-

Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

HGN Procedures

1. Check for eyeglasses
2. Verbal instructions
3. Position stimulus




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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

HGN Procedures

4. Pupil size and resting nystagmus
5. Equal tracking




DWI Detection and Standardized Field Sobriety Testing 8-35

Administrative Procedures for Horizontal Gaze Nystagmus

It is important to administer the Horizontal Gaze Nystagmus test systematically using the following steps, to ensure that nothing is overlooked.

There are 10 steps in the systematic administration of the Horizontal Gaze Nystagmus test.

Step 1: Check for Eyeglasses. (Note if subject wears contacts, especially colored contacts because some colored contacts may affect the ability to compare pupil size)

Begin by instructing the subject to remove eyeglasses, if worn.

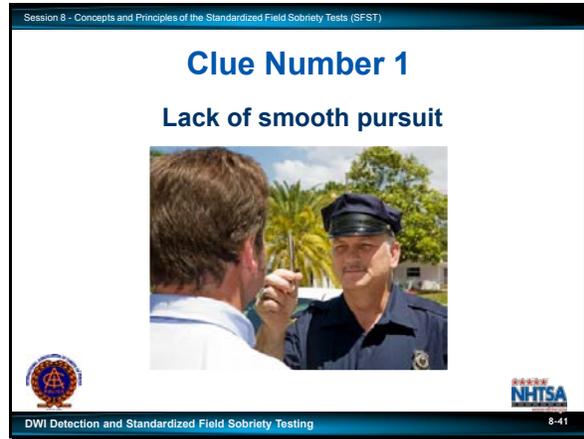
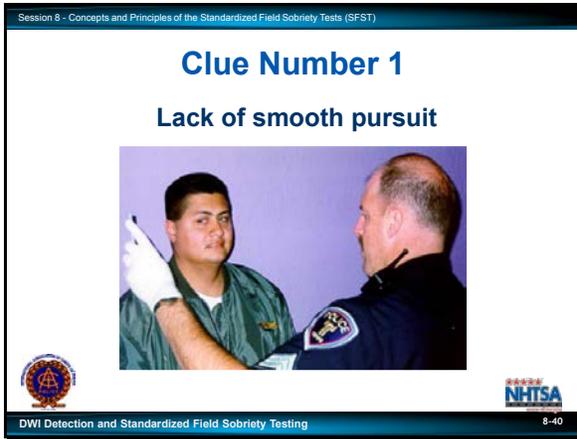
It does not matter whether the subject can see the stimulus with perfect clarity. The subject just needs to see it and be able to follow it.

Step 2: Verbal Instructions.

Give the subject the appropriate verbal instructions:

Point out that officers' should note whether subject sways, wobbles, etc. while trying to balance.

- Put feet together, hands at the side
- Keep head still
- Look at the stimulus
- Follow movement of the stimulus with the eyes only
- Keep looking at the stimulus until told the test is over



Clue No. 1: Lack of Smooth Pursuit

The first clue requires that the subject move the eye to follow the motion of a smoothly moving stimulus.

The stimulus may be the eraser on a pencil, the tip of a penlight, the tip of your finger, or any similar small object.

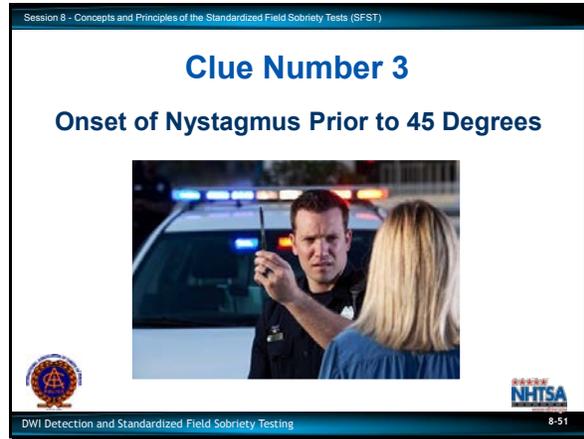
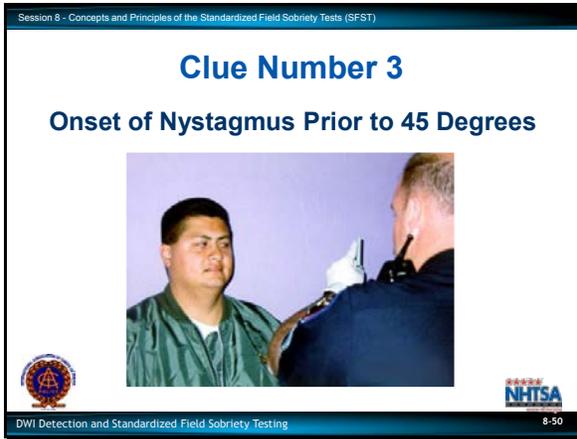
Begin by holding the stimulus vertically approximately 12 - 15 inches (30 - 38 cm) in front of the subject's nose, and slightly above eye level.

Move the stimulus smoothly all the way out to the right (checking subject's left eye first) then move the stimulus smoothly all the way across the subject's face to the left side (checking the subject's right eye), then back to center. Carefully watch the subject's left eye and determine if it is able to pursue smoothly.

Make at least two complete passes with the stimulus

If a person is not impaired by alcohol (or drugs that cause HGN), the eyes should move smoothly as the object is moved back and forth.

Analogy: movement of the eyes of a person not impaired by alcohol (or drugs that cause HGN) will be similar to the movement of windshield wipers across a wet windshield versus an impaired person and windshield wipers moving across a dry windshield.



Clue No. 3: Onset of Nystagmus Prior to 45 Degrees

Once again, position the stimulus approximately 12 - 15 inches (30 - 38 cm) in front of subject's nose and slightly above eye level.

The angle of onset of nystagmus is simply the point at which the eye is first seen jerking.

Examples: With someone at a very high BAC (0.20+), the jerking might begin almost immediately after the eye starts to move toward the side. For someone at 0.08 BAC, the jerking might not start until the eye has moved nearly to the 45 degree angle.

Generally speaking, the higher the BAC, the sooner the jerking will start as the eye moves toward the side.

If the jerking begins prior to 45 degrees, that person's BAC could be 0.08 or above.

It is not difficult to determine when the eye has reached the 45 degree point, but it does require some practice.

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. Two other important indicators can be used to determine if the eye is within 45 degrees.

At 45 degrees, some white usually will still be visible in the corner of the eye (for most people).

Mechanics of Clue Number 3



The Mechanics of Clue No. 3

The stimulus is positioned approximately 12 - 15 inches from (30 - 38 cm) subject's nose and slightly above eye level. It is necessary to move the stimulus slowly to identify the point at which the eye begins to jerk.

Start moving the stimulus towards the right side (left eye) at the speed that would take approximately 4 seconds for the stimulus to reach a 45 degree angle.

As you are slowly moving the stimulus, watch the eye carefully for any sign of jerking.

When you see the jerking begin, immediately stop moving the stimulus and hold it steady at that position.

With the stimulus held steady, look at the eye and verify that the jerking is continuing.

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.

When you locate the point of onset of nystagmus, you must determine whether it is prior to 45 degrees.

Mechanics of Clue Number 3



Verify that some white is still showing in the corner of the eye.

Examine the alignment between the stimulus and the edge of the subject's shoulder.

Start moving the stimulus towards the left side (right eye) at the speed that would take approximately 4 seconds for the stimulus to reach a 45 degree angle.

As you are slowly moving the stimulus, watch the eye carefully for any sign of jerking.

When you see the jerking begin, immediately stop moving the stimulus and hold it steady at that position.

With the stimulus held steady, look at the eye and verify that the jerking is continuing.

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.

When you locate the point of onset of nystagmus, you must determine whether it is prior to 45 degrees.

Verify that some white is still showing in the corner of the eye.

Participant Practice Clue Number 3



Participant practice of the mechanics of Clue No. 3

Participant led demonstration.

Vertical Gaze Nystagmus



D. Vertical Gaze Nystagmus (VGN)

The Vertical Gaze Nystagmus test is simple to administer. During the Vertical Gaze Nystagmus test, look for jerking as the eyes move up and are held for a minimum of four seconds at maximum elevation.

- Position the stimulus horizontally, about 12 - 15 inches in front of the subject's nose.
- Instruct the subject to hold the head still, and follow the object with the eyes only.
- Raise the object until the subject's eyes are elevated as far as possible.
- Hold for a minimum of four seconds.
- Watch closely for evidence of the eyes jerking upward.

Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

Walk and Turn

**Divided Attention Test
Mental Task and Physical Task**

Instructions stage
Walking stage






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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

Safety Precautions

- Keep subject to your left when starting demonstration
- Be aware of surroundings
- Officer should not turn his/her back to the subject for safety reasons




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Test Conditions

Whenever possible, the Walk and Turn test should be conducted on a reasonably dry, hard, level, non-slippery surface. There should be sufficient room for subjects to complete nine heel-to-toe steps. Recent field validation studies have indicated that varying environmental conditions have not affected a subject's ability to perform this test.

The original SCRI studies suggested that individuals over 65 years of age or people with back, leg or inner ear problems had difficulty performing this test. Less than 1.5% of the test subjects in the original studies were over 65 years of age. Also, the SCRI studies suggest that individuals wearing heels more than 2 inches high should be given the opportunity to remove their shoes. Officers should consider all factors when conducting SFSTs.

Procedures for Walk and Turn Testing

Walk and Turn Test Clues

- Starts too soon
- Stops while walking
- Does not touch heel-to-toe



Starts too soon. The impaired person may also keep balance, but not listen to the instructions. Since you specifically instructed the subject not to start walking "until I tell you to begin," record this clue if the subject does not wait.

Stops while walking. The subject stops while walking. Do not record this clue if the subject is merely walking slowly.

Does not touch heel-to-toe. The subject leaves a space of more than one half inch between the heel and toe on any step.

Walk and Turn Test Clues

- Steps off line
- Uses arms to balance
- Improper turn
- Incorrect number of steps



Steps off the line. The subject steps so that one foot is entirely off the line.

Uses arms to balance. The subject raises one or both arms more than 6 inches from the sides in order to maintain balance.

Improper turn. The subject removes the front foot from the line while turning. Also record this clue if the subject has not followed directions as instructed, i.e., spins or pivots around or loses balance while turning.

Incorrect number of steps. Record this clue if the subject takes more or fewer than nine steps in either direction.

Walk and Turn Test Criterion

**2 or more clues indicates BAC
at or above 0.08 (79% accurate)**



Based on recent research, if the subject exhibits two or more clues on this test or fails to complete it, classify the subject's BAC as at or above 0.08. Using this criterion, you will be able to accurately classify 79% of your subjects.

Review of Divided Attention Definition

Walk and Turn is a field sobriety test based on the important concept of divided attention.

The test requires the subject to divide attention among mental tasks and physical tasks.

The mental tasks include comprehension of verbal instructions; processing of information; and, recall of memory.

The physical tasks include balance and coordination; the subject is required to maintain balance and coordination while standing still, walking, and turning.

Administrative Procedures

Balance and counting stage:

- Raise either leg
- Keep raised foot approximately six inches (15 cm) off ground, parallel to the ground
- Keep both legs straight and arms at your side
- Keep eyes on raised foot
- Count out loud in the following manner: “one thousand one, one thousand two, one thousand three and so on”, until told to stop



Demonstrations and Instructions for the Balance and Counting Stage

Explain the test requirements, using the following verbal instructions, accompanied by demonstrations:

When I tell you to start, raise either leg with the foot approximately six inches off the ground, keeping your foot parallel to the ground.

Keep both legs straight and your arms at your side.

While holding that position, count out loud in the following manner: “one thousand one, one thousand two, one thousand three,” and so on until told to stop.

Keep your arms at your sides at all times and keep watching the raised foot.

Do you understand?

Go ahead and perform the test. (Officer should always time the 30 seconds. Test should be discontinued after 30 seconds.)

Observe the subject from a safe distance.

One Leg Stand Test Clues

- **Sways while balancing**
- **Uses arms to balance**
- **Hopping**
- **Puts foot down**



Test Interpretation

You may observe a number of different behaviors when a subject performs this test. The original research found the behaviors listed below are the most likely to be observed in someone with a BAC at or above 0.08. When administering the One Leg Stand test, we look for certain specific behaviors. Each behavior or action is considered one clue. There is a maximum number of 4 clues on this test. Look for the following clues each time the One Leg Stand test is administered.

The subject sways while balancing. This refers to side to side or back and forth motion while the subject maintains the One Leg Stand position.

Slight tremors of the foot or body should not be interpreted as swaying.

Uses arms to balance. Subject moves arms 6 or more inches from the side of the body in order to keep balance.

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Medical Assessment

- Equal Tracking Yes No
- Equal Pupils Yes No
- Resting Nyst. Yes No




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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

Horizontal Gaze Nystagmus

Horizontal Gaze Nystagmus

	Left	Right
• Lack of smooth pursuit	<input type="checkbox"/>	<input type="checkbox"/>
• Dist. & sust. nystagmus at maximum deviation	<input type="checkbox"/>	<input type="checkbox"/>
• Nystagmus onset prior to 45 degrees	<input type="checkbox"/>	<input type="checkbox"/>
• Vertical Gaze Nystagmus(circle one)	Y or N	
Other _____		




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Equal Pupils Yes No

Equal Tracking Yes No

Resting Nystagmus Yes No

Other _____

Complete the entire procedure for both eyes, checking "yes" or "no" for each clue.

Check box ✓ if the clue is present.

For standardization, test the subject's left eye first.

Then, check for the same clue in the right eye.

If clue is not present, leave box blank.

After both eyes have been completely checked, total the number of HGN clues observed.

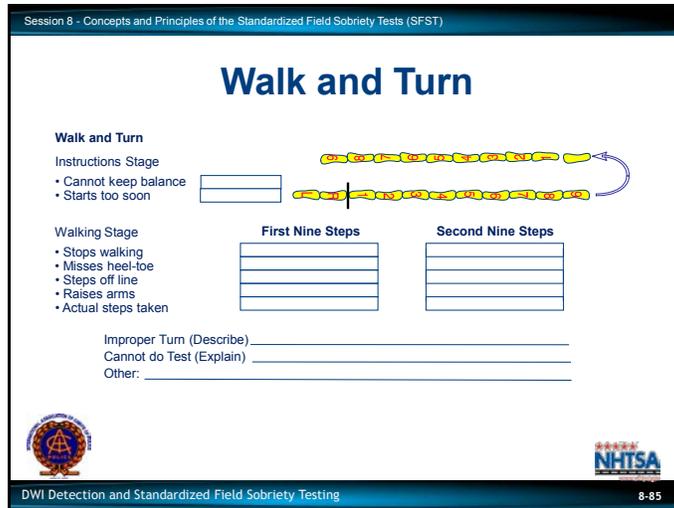
Complete the check for vertical gaze nystagmus

If present, circle Y. If not present, circle N.

In the section labeled "other", record any facts, circumstances, conditions or observations that may be relevant to this procedure.

Examples of additional evidence of impairment emerging while checking for nystagmus:

- Subject unable to keep head still
 - Subject swaying noticeably
 - Subject utters incriminating statements
-
-
-



The section on the Walk and Turn test appears at the top of the guide's back side.

First two clues are checked only during the instructions stage.

In the boxes provided check (√) the number of times the clue appears during the instructions stage.

Example: if subject loses balance twice during the instructions stage, Place two (√) check marks in the box.

Example: If the subject does not start too soon, write "0" in that box.

Record the next four clues separately for each nine steps.

If subject stops walking, record it by drawing a vertical line from the toe at the step at which the stop occurred and place a letter "S" at bottom of vertical line to indicate "stops walking". Do this for each of the nine steps.

How many times during first nine steps?

How many times during second nine steps

If subject fails to touch heel-to-toe, record how many times this happens and place a letter "M" at bottom of vertical line to indicate missed heel-to-toe.

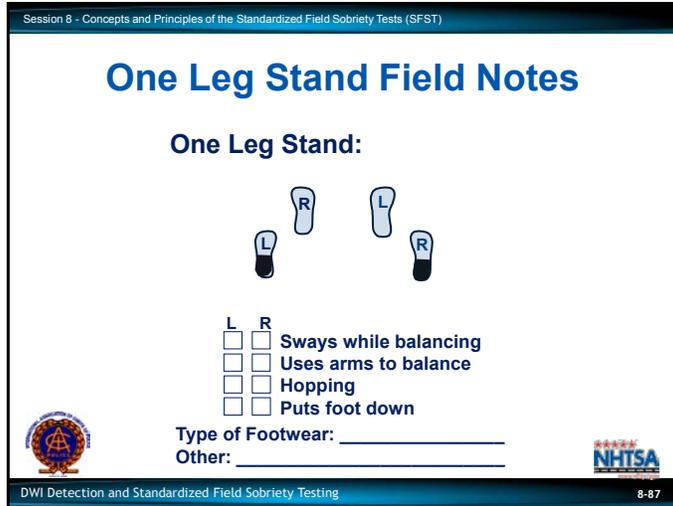
If subject steps off the line while walking, record it by drawing a line from the appropriate footprint at the angle in the direction in which the foot stepped. Do this for each nine steps.

If subject uses arms to balance, give some indication of how often or how long this happens.

Example: subject raised arms from sides three times

Place three (√) check marks in the box.

Record the actual number of steps taken by subject, in each direction.



Type of Footwear _____

Record the subject's performance separately.

For each clue, record how often it appears with a (√) check mark.

If subject sways, indicate how often with a (√) check mark.

Indicate above the feet the number they were counting when they put their foot down.

Check marks should be made to indicate the number of times the subject swayed, used arms, hopped or put foot down.

Place (√) check marks in or near the small boxes to indicate how many times you observed each of the clues.

In addition, if the subject puts the foot down during the test, record when it happened. To do this, write the count number at which the foot came down.

For example, suppose that, when standing on the left leg, the subject lowered the right foot at a count of "one thousand thirteen," and again at "one thousand twenty."

If subject uses arms to balance, indicate how often arms were raised.

If subject is hopping, indicate how many hops were taken.

If subject puts foot down, indicate how many times the foot came down.

If the subject is unable to safely complete the test, you may stop the test early. Document the reasons the test was stopped.

Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

Test Your Knowledge

1. Walk and Turn is an example of _____ field sobriety test.
2. The Walk and Turn requires a real or imaginary line and _____
3. During the _____ stage of the Walk and Turn, the suspect is required to count out loud.




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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

Test Your Knowledge

4. Based upon the San Diego study, the Walk and Turn test can determine whether a subject's BAC is above or below 0.08, _____ % of the time
5. In the Walk and Turn test, a subject who steps off the line during the first 9 steps and once again during the second 9 steps and who raises arms for balance twice during the second 9 steps has produced _____ distinct clue(s).




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TEST YOUR KNOWLEDGE

INSTRUCTIONS: Complete the following sentences.

1. Walk and Turn is an example of _____ field sobriety test.

2. The Walk and Turn requires a real or imaginary line and _____

3. During the _____ stage of the Walk and Turn, the subject is required to count out loud.

4. Based upon the San Diego study, the Walk and Turn test can determine whether a subject's BAC is above or below 0.08, _____ % of the time.

5. In the Walk and Turn test, a subject who steps off the line during the first 9 steps and once again during the second 9 steps and who raises arms for balance twice during the second nine steps has produced _____ distinct clue(s).

Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

Test Your Knowledge

- The Walk and Turn test has _____ possible clues.
- During the _____ stage of the One Leg Stand test the subject must maintain balance while standing on one foot
- The One Leg Stand test requires that the subject keep the foot raised for _____ seconds.




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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)

Test Your Knowledge

- Based upon the San Diego study, the One Leg Stand test can determine whether a subject's BAC is above or below 0.08, _____ % of the time
- In the One Leg Stand test, a subject who sways has produced _____ clue(s)
- In the One Leg Stand test, a subject who raises arms, is hopping, and puts foot down has produced _____ clue(s).




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6. The Walk and Turn test has _____ possible clues.

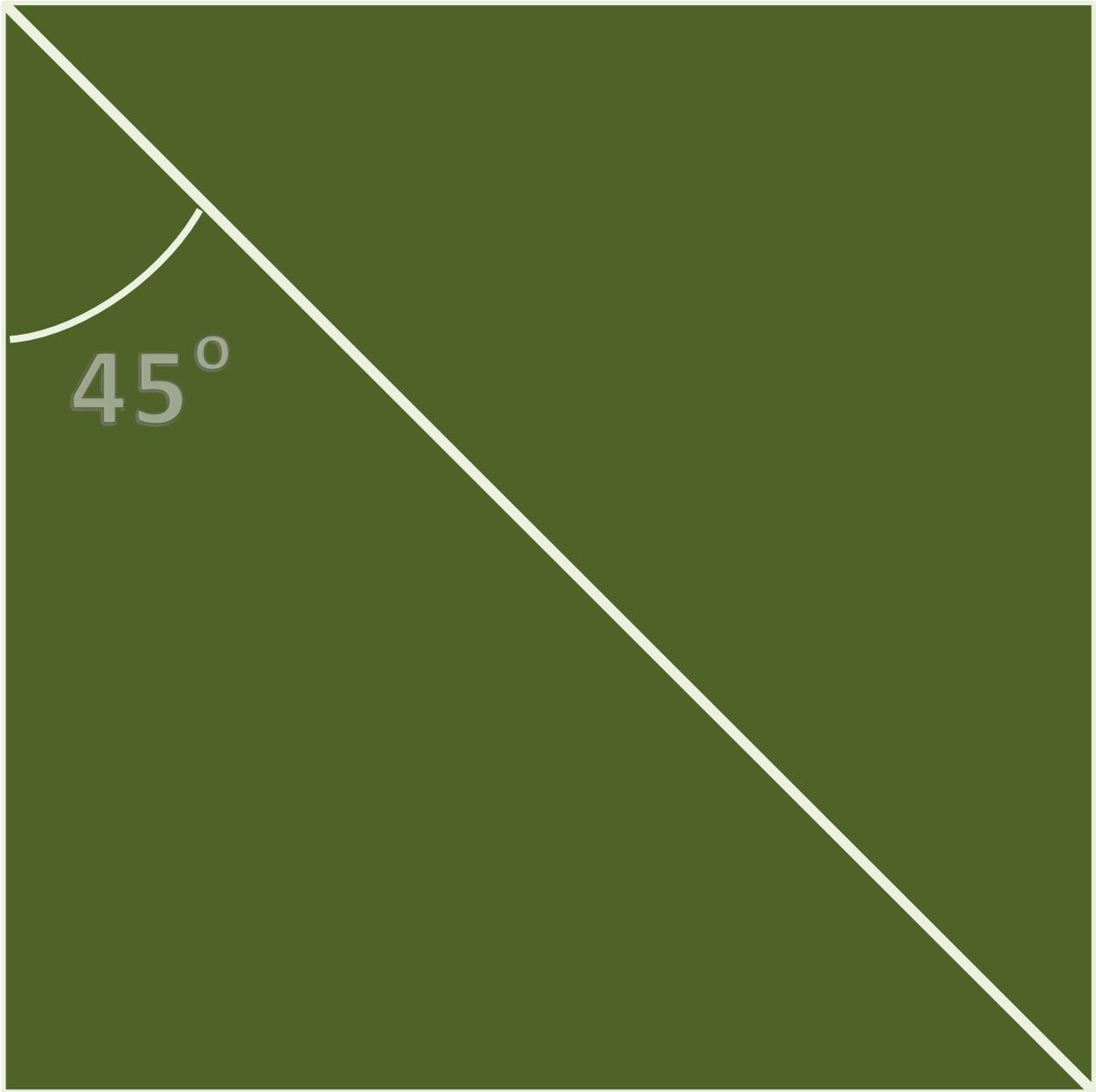
7. During the _____ stage of the One Leg Stand test the subject must maintain balance for 30 seconds.

8. The One Leg Stand requires that the subject keep the foot elevated for _____ seconds.

9. Based upon the San Diego study, the One Leg Stand test can determine whether a subject's BAC is above or below 0.08, _____% of the time.

10. In the One Leg Stand test, a subject who sways has produced _____ clue(s).

11. In the One Leg Stand test, a subject who raises arms, is hopping, and puts foot down has produced _____ clue(s).



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Participant Manual

DWI Detection and Standardized Field Sobriety Testing (SFST)

Session 9 - Test Battery Demonstrations

40 Minutes

Session 9

Test Battery Demonstrations



DWI Detection and Standardized Field Sobriety Testing

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Participant Manual

DWI Detection and Standardized Field Sobriety Testing (SFST)

Session 10 - "Dry Run" Practice Session

50 Minutes

Session 10

"Dry Run" Practice Session



DWI Detection and Standardized Field Sobriety Testing

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Session 10 - "Dry Run" Practice Session

Learning Objective

Demonstrate the appropriate administration of the three Standardized Field Sobriety Tests




DWI Detection and Standardized Field Sobriety Testing 10-2

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

- Demonstrate the proper administration of the three Standardized Field Sobriety Tests.

<u>CONTENT SEGMENTS</u>	<u>LEARNING ACTIVITIES</u>
A. Procedures and Group Assignments	Instructor-Led Presentation
B. Live Administration of SFST Battery.....	Participant Practice Session
C. Hands on Practice	Instructor-Led Presentation

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**PARTICIPANT PROFICIENCY EXAMINATION
STANDARDIZED FIELD SOBRIETY TEST BATTERY**

Name _____ Date ____/____/____

Agency _____

I. HORIZONTAL GAZE NYSTAGMUS

1. ___ Have subject remove glasses if worn.
2. ___ Stimulus held in proper position (approximately 12"-15" from nose, just slightly above eye level).
3. ___ Check for equal pupil size and resting nystagmus.
4. ___ Check for equal tracking.
5. ___ Smooth movement from center of nose to maximum deviation in approximately 2 seconds and then back across subject's face to maximum deviation in right eye, then back to center. Check left eye, then right eye. (Repeat)
6. ___ Eye held at maximum deviation for a minimum of 4 seconds (no white showing). Check left eye, then right eye. (Repeat)
7. ___ Eye moved slowly (approximately 4 seconds) from center to 45 angle. Check left eye, then right eye. (Repeat)
8. ___ Check for Vertical Gaze Nystagmus. (Repeat)

II. WALK AND TURN

1. ___ Instructions given from a safe position.
2. ___ Tells subject to place feet on a line in heel-to-toe manner (left foot behind right foot) with arms at sides and gives demonstration.
3. ___ Tells subject not to begin test until instructed to do so and asks if subject understands.
4. ___ Tells subject to take nine heel-to-toe steps on the line and demonstrates.
5. ___ Explains and demonstrates turning procedure.
6. ___ Tells subject to return on the line taking nine heel-to-toe steps.
7. ___ Tells subject to count steps out loud.
8. ___ Tells subject to look at feet while walking.
9. ___ Tells subject not to raise arms from sides.
10. ___ Tells subject not to stop once they begin.
11. ___ Asks subject if all instructions are understood.

III. ONE LEG STAND

1. ____ Instructions given from a safe position.
2. ____ Tells subject to stand straight, place feet together, and hold arms at sides.
3. ____ Tells subject not to begin test until instructed to do so and asked if subject understands.
4. ____ Tells subject to raise one leg, either leg, approximately 6" from the ground, keeping raised foot parallel to the ground, and gives demonstration.
5. ____ Tells subject to keep both legs straight and to look at elevated foot.
6. ____ Tells subject to count out loud in the following manner: one thousand one, one thousand two, one thousand three, and so on until told to stop, and gives demonstration.
7. ____ Checks actual time subject holds leg up. (Time for 30 seconds.)

Instructor: _____

Note: In order to pass the proficiency examination, the student must explain and proficiently complete each of the steps listed.

Participant Manual

DWI Detection and Standardized Field Sobriety Testing (SFST)

Session 11 - "Testing Subjects" Practice First Session

2 Hours

Session 11

**"Testing Subjects"
Practice: First Session**



DWI Detection and Standardized Field Sobriety Testing

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Sample Dry Erase Board Array for Tabulating Results

"Designated Subjects"	Horizontal Gaze Nystagmus	Walk and Turn	One Leg Stand	Arrest?
"A"				
"B"				
"C"				
"D"				
"E"				
"F"				
"G"				
"H"				
"I"				
"J"				

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Participant Manual

DWI Detection and Standardized Field Sobriety Testing (SFST)

Session 11 - "Testing Subjects" Practice First Session

2 Hours

Session 11-A

Dry Lab



DWI Detection and Standardized Field Sobriety Testing

11-A-1

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