

# Instructor Guide

# 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

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




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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

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## 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



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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)



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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



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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



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### **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.

## Standardized Elements

- Standardized Administrative Procedures
- Standardized Clues
- Standardized Criteria



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The three standardized tests were found to be highly reliable in identifying subjects whose BACs were at or above 0.10. The results of the study unmistakably validated the SFSTs.

The “Standardized” elements included:

- Standardized Administrative Procedures
- Standardized Clues
- Standardized Criteria



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## Correct Decision

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

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## Colorado Field Validation Study of SFST

- **First full field validation study using SFST experienced law enforcement personnel**
- **86% correct arrest/release decision based on three test battery (HGN, WAT, OLS)**
- **93% of those arrested had a BAC of 0.05 or higher**



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### *“A Colorado Validation Study of Standardized Field Sobriety Test Battery”*

- The Colorado SFST validation study was the first full field study that utilized law enforcement personnel experienced in the use of SFSTs.
- The initial 1977 study utilized only a few experienced officers in DWI enforcement in both a laboratory setting and field setting. These officers received approximately four hours of training in field sobriety testing prior to the laboratory study.
- In the Colorado study, correct arrest/release decisions at a 0.05 BAC were 86% accurate based on the three test battery (HGN, WAT, OLS). 93% of arrested drivers had a BAC of 0.05 or higher. These results, by officers who were trained in the Standardized Field Sobriety Testing curriculum, were substantially higher than the initial 1977 study results.





## 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



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### *Categories of Nystagmus*

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

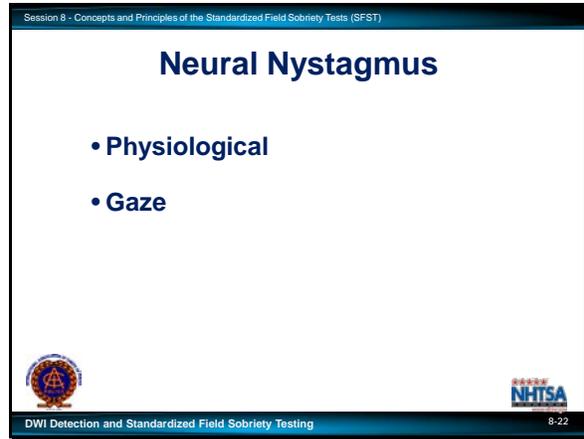
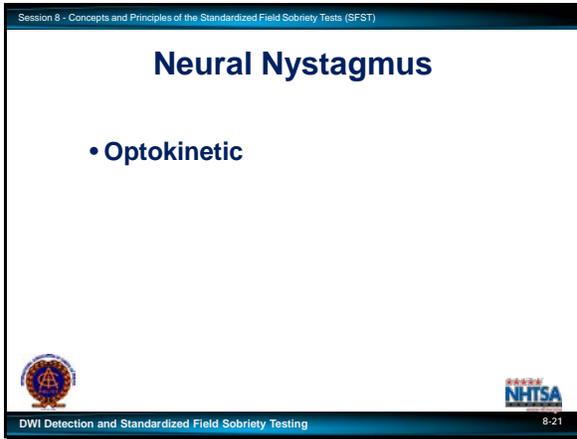
It is important to know some of the other common types of nystagmus, to be aware of their potential impact on our field sobriety tests.

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.

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## Gaze Nystagmus

- Horizontal
- Vertical
- Resting



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

- Horizontal
- Vertical
- Resting

## Pathological Disorders and Diseases

**Pathological Nystagmus - Caused by the presence of specific pathological disorder, which include brain tumors, other brain damage, or some diseases of the inner ear.**



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Pathological Nystagmus. Caused by the presence of specific pathological disorder, which include brain tumors, other brain damage, or some diseases of the inner ear.





## Medical Impairment

- Equal pupil size
- Resting nystagmus
- Equal tracking



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### *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.

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## Medical Impairment

**Even though the possibility of alcohol and/or drug impairment exists, be aware of medical conditions having symptoms in common with alcohol influence.**




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## HGN Medical Impairment Assessment Procedures

- Check eyes for:
- Equal pupil size
- Resting nystagmus
- Equal tracking

- If eyes do not track together, or pupils are noticeably unequal in size, medical disorders or injuries may be present




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By passing a stimulus across both eyes, you can check to see if both eyes are tracking equally. 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.

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.

*Procedures to Assess Possible Medical Impairment*

Prior to administration of HGN, the eyes are checked for equal pupil size, resting nystagmus, and equal tracking (can they follow an object together). If the eyes do not track together, or if the pupils are noticeably unequal in size, the chance of medical disorders or injuries causing the nystagmus may be present. If the eyes track together, continue with the test and document the results.

Officers are reminded to ask questions about the subject's eye and general health conditions prior to administering the HGN test. If a subject responds or volunteers information that he or she is blind in one eye or has an artificial eye, the officer should make note of that and may proceed with the HGN test. If there are any abnormal findings on the pre-test checks, the officer may choose not to continue with the testing. If HGN testing is continued, officers are reminded that this does not follow the standardized protocol and should acknowledge such in any report.

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## HGN Testing: Three Clues

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



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### *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.

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## 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



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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
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## HGN Procedures

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




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## HGN Procedures

4. Pupil size and resting nystagmus
5. Equal tracking




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### *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

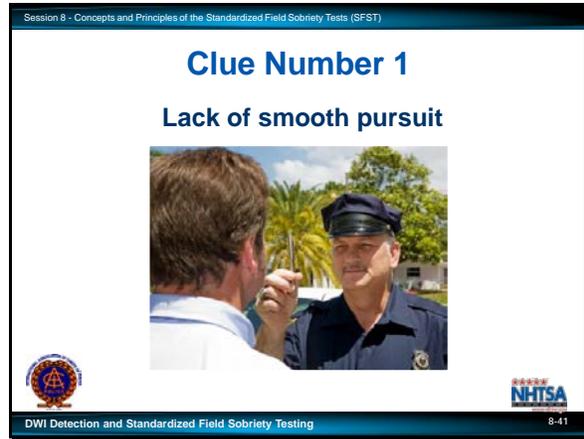
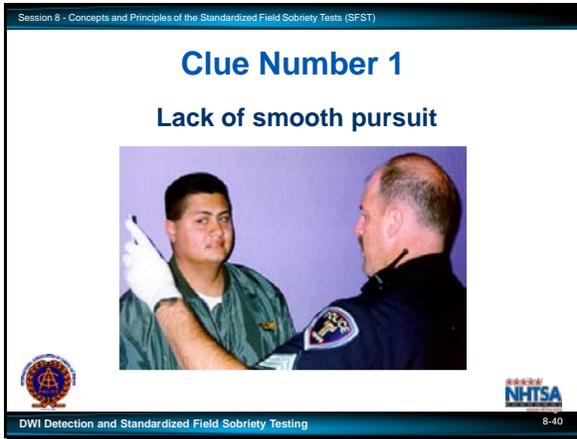












*Clue No. 1: Lack of Smooth Pursuit*

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.

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## Mechanics of Clue Number 1

- **Move object steadily at a speed that takes approximately 2 seconds to bring the eye from center to side**
- **Make at least two complete passes in front of the eyes**



### *The Mechanics of Clue Number 1*

It is necessary to move the object smoothly in order to check the eye's ability to pursue smoothly.

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 (checking subject's right eye) and then back to the center.

The object must be moved steadily, at a speed that takes approximately 2 seconds to bring the eye from center to side.

In checking for this clue, make at least two complete passes in front of the eyes.

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.

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## Live Demonstration Clue Number 1



*Live Demonstration of the Mechanics of Clue No. 1*

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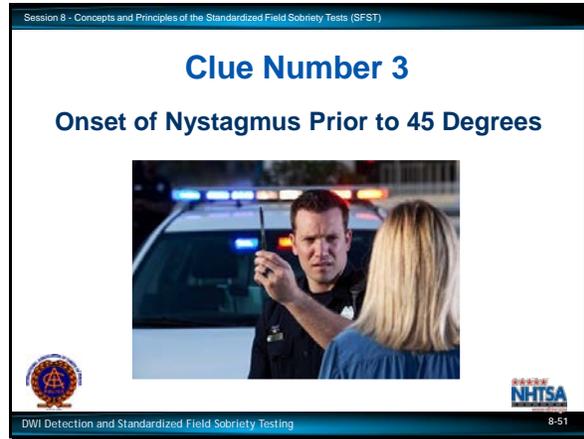
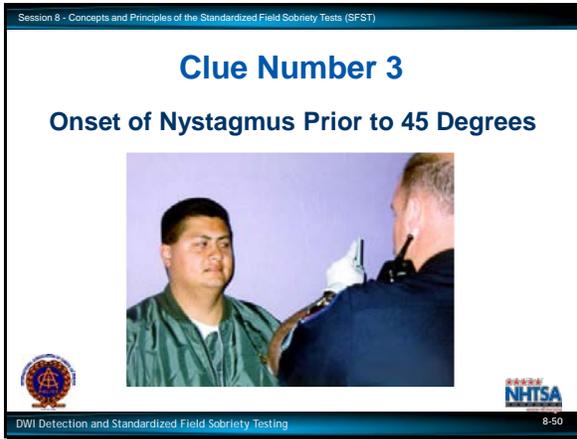












*Clue No. 3: Onset of Nystagmus Prior to 45 Degrees*

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).

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## Mechanics of Clue Number 3



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### *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.

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## Mechanics of Clue Number 3



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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.

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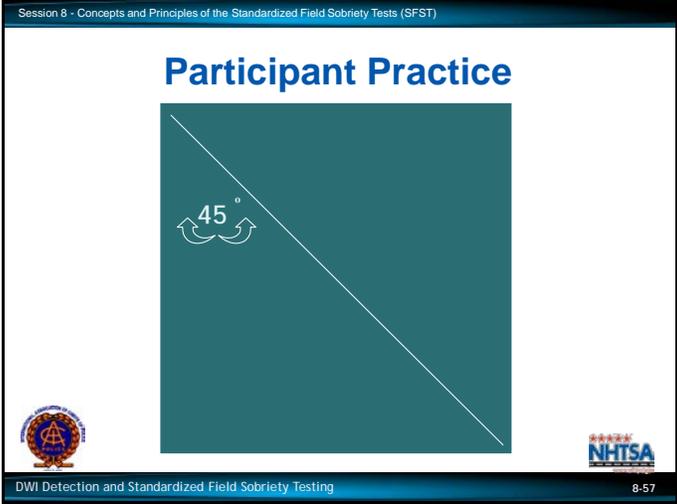
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*Coaching and Critiquing Participants' Practice*

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*Participant led Demonstration*

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## Vertical Gaze Nystagmus



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### 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.









## Administrative Procedures Walking Stage

- **Nine heel-to-toe steps, turn, nine heel-to-toe steps**
- **Turn procedures:**
  - Turn around on line
  - Several small steps



### *Demonstrations and Instructions for the Walking Stage*

Explain the test requirements by giving instructions, accompanied by demonstrations:

When I tell you to start, take nine heel-to-toe steps on the line, turn, and take nine heel-to-toe steps down the line.

When you turn, keep the front (lead) foot on the line, and turn by taking a series of small steps with the other foot, like this.

While you are walking, keep your arms at your sides, watch your feet at all times, and count your steps out loud.

Once you start walking, don't stop until you have completed the test.

Do you understand the instructions? (Make sure subject understands.)

Instruct the person to begin the test.

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## Walk and Turn Test Clues

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



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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.

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

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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.

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## Walk and Turn Test Clues

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



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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.

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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.

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

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## Walk and Turn Test Criterion

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



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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.

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### *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.

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## 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.

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## One Leg Stand Test Clues

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



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### *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.

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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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## Taking Field Notes on the SFSTs

**IV Pre-Arrest Screening**

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

**Horizontal Gaze Nystagmus**

- Lack of smooth pursuit
- Dist. and sust. nystagmus at maximum deviation
- Nystagmus onset prior to 45 degrees
- Vertical Gaze Nystagmus
- Other \_\_\_\_\_

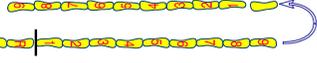
Left	Right
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Y or N (circle one)

**Walk and Turn**

Instructions Stage

- Cannot keep balance
- Starts too soon



Walking Stage

- Stops walking
- Misses heel-toe
- Steps off line
- Raises arms
- Actual steps taken

First Nine Steps


Second Nine Steps


Improper Turn (Describe) \_\_\_\_\_

Cannot do Test (Explain) \_\_\_\_\_

Other: \_\_\_\_\_



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### G. Taking Field Notes on the Standardized Field Sobriety Tests

For purposes of the arrest report and courtroom testimony, it is not enough to report the number of clues on the three tests.

The numbers are important to the police officer in the field, because they help determine whether there is probable cause to arrest.

But to secure a conviction, more descriptive evidence is needed.

The officer must be able to describe how the subject performed on the tests, and what the subject did.

The standard note taking guide is designed to help develop a clear description of the subject's performance on the tests.

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## Medical Assessment

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




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## Horizontal Gaze Nystagmus

**Horizontal Gaze Nystagmus**

	<b>Left</b>	<b>Right</b>
• 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 \_\_\_\_\_

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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
- 
- 
-



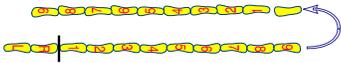
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## Walk and Turn

**Walk and Turn**

**Instructions Stage**

- Cannot keep balance
- Starts too soon



**Walking Stage**

- Stops walking
- Misses heel-toe
- Steps off line
- Raises arms
- Actual steps taken

**First Nine Steps**


**Second Nine Steps**


Improper Turn (Describe) \_\_\_\_\_

Cannot do Test (Explain) \_\_\_\_\_

Other: \_\_\_\_\_




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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.





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## One Leg Stand Field Notes

**One Leg Stand:**



<input type="checkbox"/>	<input type="checkbox"/>	Sways while balancing
<input type="checkbox"/>	<input type="checkbox"/>	Uses arms to balance
<input type="checkbox"/>	<input type="checkbox"/>	Hopping
<input type="checkbox"/>	<input type="checkbox"/>	Puts foot down

Type of Footwear: \_\_\_\_\_  
 Other: \_\_\_\_\_

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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.



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## 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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## 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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### 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).

