DWI Detection and Standardized Field Sobriety Testing

March 2013 Edition

Participant Guide





Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)							
Horizontal Gaze Nystagmus							
Involuntary jerking of the eyes, occurring as the eyes gaze to the side							
NHTSA							
DWI Detection and Standardized Field Sobriety Testing 8-18							

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C. <u>Horizontal Gaze Nystagmus</u>

<u>Definition Review:</u> Involuntary jerking of the eyes, occurring as the eyes gaze to the side.

In addition to being involuntary:

- · Person is usually unaware that it is happening.
- Person is powerless to stop it or control it.

<u>Key Summary Point:</u> Alcohol and certain other drugs cause Horizontal Gaze Nystagmus.



notes:	 	 	

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

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s	session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)		Notes:		
	Vestibular Nystagmus		Notes	 	
	Rotational				
	Post Rotational				
	Caloric			 	
L					
	Q '	NHTSA			
D	WI Detection and Standardized Field Sobriety Testing	8-20			

<u>Vestibular</u> Nystagmus is caused by movement or action to the vestibular system.

Types of vestibular nystagmus:

- Rotational Nystagmus occurs when the person is spun around or rotated rapidly, causing the fluid in the inner ear to be disturbed. If it were possible to observe the eyes of a rotating person, they would be seen to jerk noticeably.
- <u>Post Rotational</u> Nystagmus is closely related to rotational nystagmus: when the person stops spinning, the fluid in the inner ear remains disturbed for a period of time, and the eyes continue to jerk.

Neither Rotational nor Post Rotational Nystagmus will interfere with the Horizontal Gaze Nystagmus test because of the conditions under which they occur.

• <u>Caloric</u> Nystagmus occurs when fluid motion in the canals of the vestibular system is stimulated by temperature as by putting warm water in one ear and cold in the other.

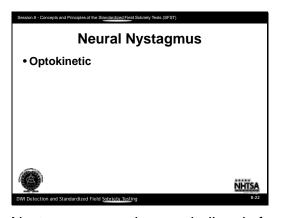
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Vestibular Nystagmus (Cont.)						
Positional Alcohol Nystagmus						
	NHTSA					
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Notes:	 	 	

<u>Positional Alcohol</u> Nystagmus (PAN) occurs when a foreign fluid, such as alcohol, that alters the specific gravity of the blood is in unequal concentrations in the blood and the vestibular system. This causes the vestibular system to respond to gravity in certain head positions, resulting in nystagmus.

In the original HGN study, research was not conducted for performing HGN on people lying down. Current research demonstrates that HGN can be performed on someone in this position.



Notes:_	 	 	 		

Nystagmus can also result directly from <u>neural</u> 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.

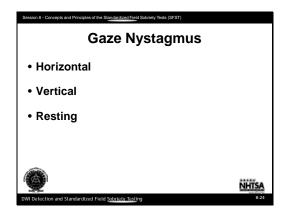
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Neural Nystagmus						
Physiological						
• Gaze						
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Notes:	 	 		 	
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Physiological Nystagmus is a natural nystagmus that keeps the sensory cells 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.



Notes:		 	 	

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

- Horizontal
- Vertical
- Resting

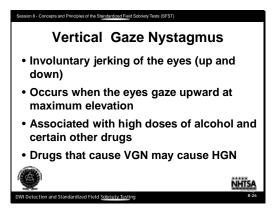
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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)					
Horizontal Gaze Nystagmus					
Involuntary jerking of the eyes, occurring as the eyes gaze to the side	ıg				
Observation of the eyes for <u>Horizontal</u> Gaze Nystagmus provides the first and most accurate test in the SFST Battery					
It's presence may indicate use of certain other drugs					
(S)	ΪSΑ				
DWI Detection and Standardized Field Sobriety Testing	8-25				

Notes:	 	

<u>Horizontal</u> Gaze Nystagmus is an involuntary jerking of the eyes, occurring as the eyes gaze to the side. It is the observation of the eyes for <u>Horizontal</u> Gaze Nystagmus that provides the first and most accurate test in the Standardized Field Sobriety Test battery. Although this type of nystagmus is indicative of alcohol impairment, its presence may also indicate use of certain other drugs.

Examples of other drugs are: CNS Depressants, Inhalants, and Dissociative Anesthetics such as PCP and its analogs.



Notes:	 		

<u>Vertical</u> Gaze Nystagmus is an involuntary jerking of the eyes (up and down) which occurs when the eyes gaze upward at maximum elevation. The presence of this type of nystagmus is associated with high doses of alcohol for that individual and certain other drugs. The drugs that cause Vertical Gaze Nystagmus are the same ones that cause Horizontal Gaze Nystagmus.

There is no drug that will cause Vertical Gaze Nystagmus that may not cause Horizontal Gaze Nystagmus. If Vertical Gaze Nystagmus is present and Horizontal Gaze Nystagmus is not, it could be a medical condition.

For VGN to be recorded, it must be definite, distinct and sustained for a minimum of four seconds at maximum elevation.

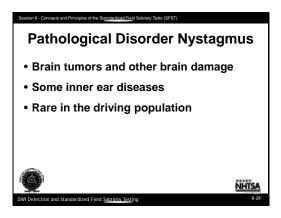
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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)	
Resting Nystagmus	
Jerking of the eyes as they look straight ahead	
Presence usually indicates a pathological disorder or high doses of a Dissociative Anesthetic drug such as PCP If detected, take OFFICER SAFETY	
precautions	
NHTSA	
DWI Detection and Standardized Field Sobriety Testing 8-27	

Notes:			

Resting Nystagmus is referred to as a jerking of the eyes as they look straight ahead. Its presence usually indicates a pathological disorder or high doses of a Dissociative Anesthetic drug such as PCP. If detected, take precautions. (OFFICER SAFETY.)

Nystagmus may also be caused by certain <u>pathological disorders</u>. They include brain tumors and other brain damage or some diseases of the inner ear. These pathological disorders occur in very few people and in even fewer drivers.



Notes:	 	 	

Nystagmus may also be caused by certain <u>pathological disorders</u>. They include brain tumors and other brain damage or some diseases of the inner ear. These pathological disorders occur in very few people and in even fewer drivers.

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Medical Impairment		Notes				
Equal pupil size Resting nystagmus						
Equal tracking						
3						
	NHTSA					
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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.

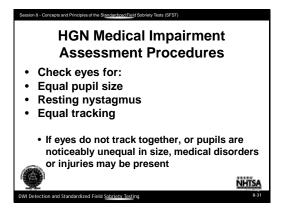
This observation is a medical assessment. If the two eyes do not track together, the possibility of a serious medical condition or injury is present.

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Notes:	 	 	 	

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.



notes:	 	 	

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.

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)	Notes:
HGN Testing: Three Clues	Notes
Lack of smooth pursuit	
Distinct and sustained Nystagmus at maximum deviation	
Onset of Nystagmus prior to 45 degrees	
	·
NHTSA DWI Detection and Standardized Field Sobriety Testing 8-32	
3	

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.
- <u>Distinct and Sustained Nystagmus At Maximum Deviation (Clue Number Two)</u> -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
(A)
NHTSA
DWI Detection and Standardized Field Sobriety Testing 8-33

Notes:	 			

Horizontal and Vertical Gaze Nystagmus can be observed directly and does not require special equipment. You will need a <u>contrasting</u> 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.

- 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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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)	Notes:				
HGN Procedures	Notes				
1. Check for eyeglasses					
NHTS	<u>A</u>				
DWI Detection and Standardized Field Sobriety Testing	34				

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.

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

It does not matter whether the subject can see the stimulus with perfect clarity, as long as subject can see it at all.

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)	Notes:
HGN Procedures (Cont.)	Notes
Check for eyeglasses Verbal instructions	
3. Position stimulus	
NHTSA	
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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

Step 3: Position the Stimulus.

Position the stimulus approximately 12 - 15 inches (30 - 38 cm) in front of subject's nose, and slightly above eye level to commence the test.

Resting Nystagmus may be observed at this time. Officers should note whether the subject displays Resting Nystagmus.

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)				
HGN Procedures (Cont.)				
4. Pupil size and resting nystagmus				
5. Equal tracking				
DWI Detection and Standardized Field <u>Sobriety Testing</u>	NHTSA 8-36			

Step 4: Equal Pupil Size and Resting Nystagmus. Check for equal pupil size and resting nystagmus.

Step 5: Equal Tracking.

Check for equal tracking. Move the stimulus rapidly from center to far right, to far left and back to center.

Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)	
HGN Procedures (Cont.)	
6. Check for lack of smooth pursuit 7. Check for distinct and sustained nystagmus at maximum deviation 8. Check for onset of nystagmus prior to 49 degrees	5
DWI Detection and Standardized Field Sobriate Testing	Δ

Notes:_	 	 	

Step 6: Lack of Smooth Pursuit. Check the left eye for lack of the "Smooth Pursuit" clue. If the eye is observed to jerk while moving, that is one clue.

Check the right eye for lack of the "Smooth Pursuit" clue and compare.

Step 7: Check the right and left eye for the "distinct and sustained nystagmus at maximum deviation" clue. If the jerkiness is distinct and sustained, that is one clue.

Step 8: Onset of Nystagmus Prior to 45 Degrees. Check the left eye for the "onset of nystagmus prior to 45 degrees" clue. If the jerking begins prior to 45 degrees, that is one clue.

Check the right eye for "onset of nystagmus prior to 45 degrees" clue, and compare.

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)		Notes:
HGN Procedures (Cont.)		Notes
9. Total the clues		
10. Check for Vertical Gaze Nystagmus	5	
	NHTSA	
DWI Detection and Standardized Field Sobriety Testing	8-38	

Step 9: Total the clues

Maximum number of clues possible for each eye: 3

Total maximum number of clues possible for both eyes: 6.

Step 10: Check for Vertical Nystagmus

It is possible that all three clues definitely will be found in one eye, while only two (or sometimes only one) will show up in the other eye. It is always necessary to check both eyes, and to check them independently. Notwithstanding, it is unlikely that the eyes of someone under the influence of alcohol will behave totally different.

Thus, if one eye shows all three clues distinctly while the other eye gives no evidence of nystagmus, the person may be suffering from one of the pathological disorders covered previously.

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)	Notos
Test Interpretation	Notes:
Look for three clues of nystagmus in each	
eye:	
Lack of smooth pursuit	
Distinct and sustained Nystagmus at maximum deviation	
Onset of Nystagmus prior to 45 degrees	
NHTSA	
DWI Detection and Standardized Field Sobriety Testing 8-39	

Test Interpretation

You should look for three clues of nystagmus in each eye.

Lack of Smooth Pursuit (The eye cannot follow a moving object smoothly)

Distinct and Sustained Nystagmus at Maximum Deviation (Nystagmus is distinct and sustained when the eye is held at maximum deviation for a minimum of four seconds)

Onset of Nystagmus Prior to 45 Degrees.

Based on recent research, if you observe four or more clues it is likely that the subject's BAC is at or above 0.08. Using this criterion you will be able to classify about 88% of your subjects accurately. This was determined during laboratory and field testing and helps you weigh the various Standardized Field Sobriety Tests in this battery as you make your arrest decision.

Ceasion 8 - Concepts and Principles of the S <u>undandeed Field</u> Scholley Texts (SFST) Three Clues of Horizontal Gaze Nystagmus	Notes:
Lack of smooth pursuit	
·	
Distinct and sustained nystagmus at	
maximum deviation	
Onset of nystagmus prior to 45 degrees	
Offiset of Hystaginus prior to 45 degrees	
NHTSA	
DWI Detection and Standardized Field Sobriety Testing 8-40	

When we administer the Horizontal Gaze Nystagmus test, we look for three specific clues as evidence of alcohol influence.

We check each eye independently for each clue.

For standardization, begin with the subject's left eye. Check for the first clue. Next, check right eye for same clue. Repeat this procedure for each clue starting with left eye, then right eye. Compare and document the results.

When we are checking an eye, it is good practice to administer the test by the numbers each time, to make sure that no step is overlooked.

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)	
Clue Number 1	
Lack of smooth pursuit	
DWD Detection and Standardized Field Solgristy Testing	HTSA 8-41

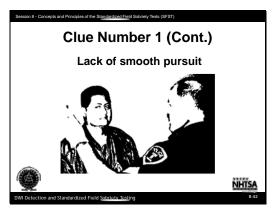
Notes:			

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.



Notes:_	 	 	 	

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.

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 a dry windshield.

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)	
Mechanics of Clue Number 1	
Move object steadily at a speed that takes approximately 2 seconds to brin the eye from center to side Make at least two complete passes in front of the eyes	g
S	HTSA
DWI Detection and Standardized Field Sobriety Testing	8-43

Notes:		 	

The Mechanics of Clue Number 1

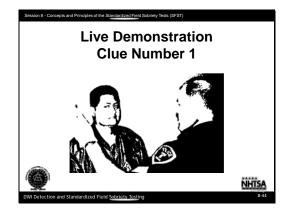
It is necessary to move the object smoothly in order to check the eye's ability to pursue smoothly.

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.

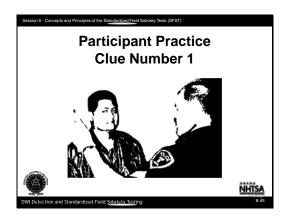
If you are still not able to determine whether or not the eye is jerking as it moves, additional passes may be made in front of the eyes.



Notes:	 	 	

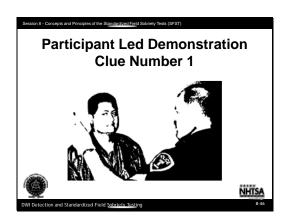
Live Demonstration of the Mechanics of Clue No. 1

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Notes:	 	 	

Participant Practice of the Mechanics of Clue No. 1



Notes:	 	 	

Participant Led Demonstration

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)								
Clue Number 2								
Distinct and Sustained Nystagmu at Maximum Deviation	IS							
DW Detection and Standardized Field Solgiety Testing	NHTSA							

Notes:	 	 	 	

Clue No. 2: Distinct and Sustained Nystagmus at Maximum Deviation

Once you have completed the check for lack of smooth pursuit, you will check the eyes for distinct and sustained nystagmus when the eye is held at maximum deviation, beginning with the subject's left eye.

The Mechanics of Clue Number 2

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

Move the stimulus off to the right side (checking subject's left eye) until the eye has gone as far as possible.

Hold the stimulus steady at that position for a minimum of four (4) seconds, and carefully watch the eye.

Then, move the stimulus back across the subject's face all the way out to the left side (subject's right eye).

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)								
Clue Number 2 (Cont.)								
Distinct and Sustained Nystagmu at Maximum Deviation	IS							
	NHTSA							
DWI Detection and Standardized Field Sobriety Testing	8-48							

Notes:	 	 		

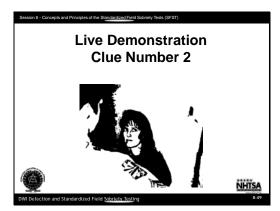
Four seconds will not cause fatigue nystagmus. This type of nystagmus may begin if a subject's eye is held at maximum deviation for more than 30 seconds.

Hold the stimulus steady and carefully watch the eye.

If the person is impaired, the eye is likely to exhibit definite, distinct and sustained jerking when held at maximum deviation for a minimum of 4 seconds.

In order to "count" this clue as evidence of impairment, the nystagmus must be distinct and sustained for a minimum of 4 seconds.

If you think you see only slight nystagmus at this stage of the test, or if you have to convince yourself that nystagmus is present, then it isn't really there.



Notes:	 	 	

Live Demonstration of the Mechanics of Clue No. 2
Participant Led Demonstrations

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)	
Clue Number 3	
Onset of Nystagmus Prior to 45 Deg	grees
DVID Detection and Standardized Field Sobriety Testing	NHTSA 881

notes:			

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.

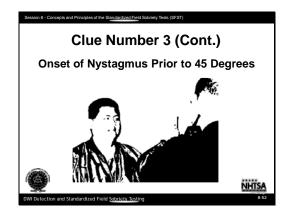
The angle of onset of nystagmus is simply the point at which the eye is first seen jerking.

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.

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notes:	 	 	

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).

If you started with the stimulus approximately 12 - 15 inches (30 - 38 cm) in front of the subject, when you reach 45 degrees the stimulus will usually be lined up with, or slightly beyond, the edge of the subject's shoulder.

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)	
Mechanics of	
Clue Number 3	
	NHTSA
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Notes:	 	

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 the edge of the subject's shoulder.

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

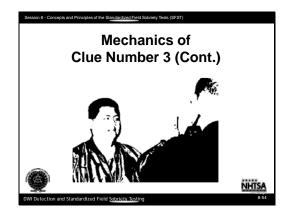
When you see the jerking begin, immediately stop moving the stimulus and hold it steady at that position.

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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Notes:	 	 	 	

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 the edge of the subject's shoulder.

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.

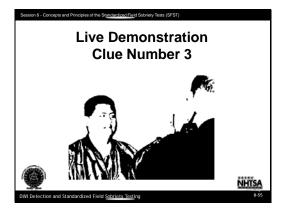
With the stimulus held steady, look at the eye and verify that the jerking is continuing.

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.

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



notes:	 	 	

Live Demonstration of the Mechanics of Clue No. 3

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)	
Participant Practice	
Clue Number 3	
	NHTSA
DWI Detection and Standardized Field Sobriety Testing	8-56

Notes:	 		

Participant practice of the mechanics of Clue No. 3

Coaching and critiquing participants practice.

Participant led demonstration.



Notes:	 	 		 	

Training Aid: The 45 Degree Template

A training aid has been provided to help you practice estimating a 45 degree angle.

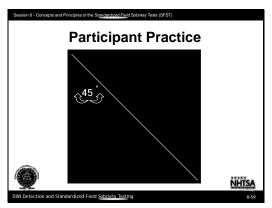
- The outline of a square, with its diagonal line, gives us a 45 degree angle.
- This outline, or template, is provided for practice only.
- It is not to be used with actual DWI subjects.

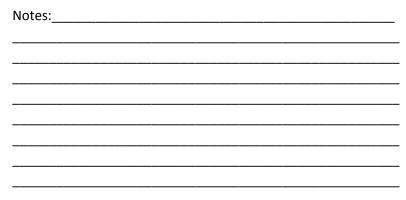
To use the template, have your training partner hold the corner of the square under the nose.

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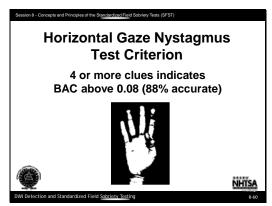
When you line up your stimulus with the diagonal line, your partner will be looking along a 45 degree angle.





Coaching and Critiquing Participants' Practice

Participant led Demonstration



Notes:	 	

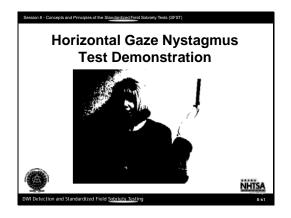
Test Interpretation

Based upon the original developmental research into Horizontal Gaze Nystagmus, the criterion for this test is 4.

If a person exhibits at least 4 out of the possible 6 clues, the implication is a BAC above 0.08.

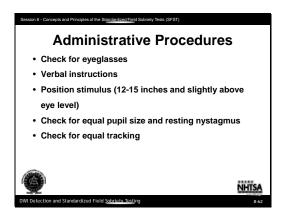
Using this criterion, the test is 88% accurate.

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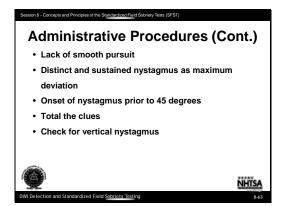


Notes:	 	 	

Test Demonstration



Notes	 	 	



Notes:	 	 	 	

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Session 8 - Concepts and Principles of the Standardized Field Sobriety Tests (SFST)					
Vertical Gaze Nystagmus					
DWD Detection and Standardized Field Sobriety Testing	NHTSA B44				

NOIES		 	

D. <u>Vertical Gaze Nystagmus</u>

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

- Position the stimulus <u>horizontally</u>, 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)	
Vertical Gaze Nystagmus	
	NHTSA
DWI Detection and Standardized Field Sobriety Testing	8-65

Notes:		 	

Participant led demonstration.

For VGN to be recorded, it must be distinct and sustained for a minimum of four seconds at maximum elevation.

VGN may be present in subjects under the influence of high doses of alcohol for that individual, and some other drugs.

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