Please review the Oculomotor Training Video prior to testing patients

Goggles preparation
- Ensure goggles have a new, unused face cushion.
- Clean mirror using the cleaning cloth.

1. Choose a wall that allows you to position the patient at least one meter in front of the wall.
2. Apply one of the fixation dots supplied with the system to the wall in a location that allows you to position the patient directly in front of the fixation dot.

Goggles placement
Caution: Improper goggles placement may result in goggle slippage. Slippage will result in inaccurate data collection.

1. Position the goggles on the patient's face over the bridge of the nose.
2. Bring the strap above the patient's ears and around to the back of head.
3. Tighten strap tight enough to ensure that goggles will not shift horizontally during test.
4. Allowing some flexibility in the cables for head movement during testing, clip the cable clip to the patient's clothing at the top of the right shoulder.
5. Ensure the eyes are wide open with eyelids positioned to not interfere with data collection.

Test Setup
1. Choose the Test Type: Gaze, VOR Skew Deviation or Saccade
2. Within the Test Type choose the test (e.g., Gaze – choose Gaze or Spontaneous)
3. Choose to perform with or without Vision Denied. Note that calibration must be performed with vision.
4. Choose to collect torsional data. Note that in order to collect torsional data your goggles must be licensed to perform this functionality. Torsional is only available for SPV tests.
5. Choose the Test Direction (e.g., Gaze – Right, Left, Up, Down, Center, Rebound Right, Rebound Left)

Pupil detection
1. Position the pupil in the ROI (region of interest): use the mouse to center the ROI box on the pupil and click, or click on the pupil to center the pupil inside the green box.
2. In the Video window, choose **Grayscale Image** or **Pupil Location.**
3. Select **Auto Threshold.** The system centers the cross-hair on the pupil.
4. Ask the patient to stare at the fixation dot. If the cross-hair fails to track the pupil (jumps around and does not stay centered on the pupil), move the threshold slider to adjust.
5. Click **OK.**

Note: *When Image Display is set to Pupil Location, make additional adjustments to remove any white dots outside the white circular image of the pupil.*

Caution: Do not look directly at the lasers.

6. Turn on both lasers.
7. Ask the patient to position the left and right dots equidistant on each side of the fixation dot.
8. Without moving their head, ask the patient to look at the left dot, then at the right dot. In the Video window, check that the cross-hair continues to track the pupil.

Note: *Use the Real Time Trace window to monitor the patient. By observing the head trace (orange) and the eye trace (green), you can tell if the patient is moving their head or eyes (instead of staring at the fixation dot), blinking excessively, or not following instructions being given (not cooperating).*

9. If the cross-hair fails to track the pupil (jumps around and does not stay centered on the pupil), move the threshold slider to make further adjustments.
10. When pupil detection is set, start calibration.

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Calibration

In the calibration procedure, the patient is asked to switch their gaze between the two dots that appear when the lasers are on. If the patient cannot be calibrated, click **Default** to use the calibration default values.

Caution: During this procedure both lasers will turn on. Do not look directly at the lasers.

1. Click **Run**
2. Ask the patient to face the fixation dot and hold their head still.
3. Ask the patient to look right at the laser beam dot. The calibration values are automatically saved.

Caution: Once calibration has been performed, it is recommended not to move the goggles.

Calibration Check

1. Ask the patient to stare at the fixation dot and move the head side to side through a small angle (about 10 degrees).
2. Check that the eye and lateral head trace overlay.
3. If the eye and lateral head trace do not overlay, you need to recalibrate or review the patient's history.
4. Once the calibration has been checked and you are satisfied with the result, click **Accept**.

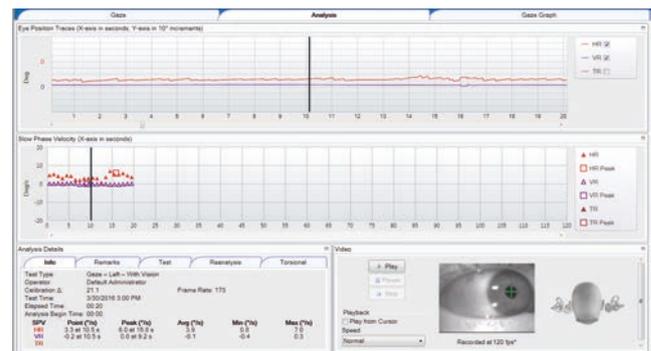The Collection window opens and you are ready to begin testing.

Oculomotor Data Collection

1. Perform an oculomotor test.
2. Instruct the patient and perform the test as described in the Gaze, VOR Skew Deviation or Saccade Training video.
3. Click the Start button in the software or use a presentation-remote to start/stop the test and indicate cover/uncover for skew deviation.

A separately purchased presentation remote can be used with the OTOsuite Vestibular application. An external monitor displays the eye video, real time SPV (for SPV tests), elapsed time and gaze position (gaze test). separate from the laptop making viewing patient response from multiple positions in the room possible.

Consult the Reference Manual in the software for more information.

This is an example of a gaze test

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