THE VESTIBULAR - OCULAR REFLEX (VOR) NORMALLY SERVES TO STABILIZE GAZE IN SPACE DURING HEAD MOVEMENTS BY GENERATING EQUAL AND OPPOSITE COMPENSATORY EYE MOVEMENTS. SINCE THE COMPANY’S INCEPTION, MICROMEDICAL HAS SPECIALIZED IN MEASURING VOR THROUGH SUCH GOLD STANDARD TESTS AS CALORIC, ROTATIONAL CHAIR AND ACTIVE HEAD ROTATION TESTING. THE NEWEST TOOL IN THE MICROMEDICAL VOR TOOL CHEST IS VIDEO HEAD IMPULSE TESTING.

**VHIT Video Head Impulse Test**

The Head Impulse Test (HIT), also known as head thrust test, has been used for years to identify vestibular deficits using unpredictable examiner applied, rapid horizontal head movements while observing compensatory catch up saccades indicative of a vestibular loss in the stimulated semicircular canal. Today, Micromedical employs years of objective VOR measurement experience to record these saccadic intrusions while measuring the VOR gain.

As a subtest of VORTEQ, Micromedical utilizes the rate sensor and binocular high speed video cameras to perform the HIT with 250 Hz video eye tracking, making it much easier to measure VOR gain and record corrective saccades. Binocular recording identifies disconjugate eye movements, lazy eye or poor eye tracking where monocular recordings might miss this important information.

**VHIT STAND-ALONE SYSTEMS**

VHIT may also be acquired as a stand-alone system when discrete VHIT testing is desired. Stand-alone systems are configured with the Micromedical VLink.
LATERAL CANAL TEST

PATIENT TESTING
Testing technique is quite important to achieve accurate results. In lateral testing, the examiner must firmly grasp the patient along the jaw line to avoid interfering with the goggles during the head thrust and to avoid scalp slippage.

VHIT ANALYSIS
VOR gain is measured and graphed while covert compensatory saccades (during head motion) and overt compensatory saccades (post head motion) are visible in the waterfall display. Complete bilateral vestibular loss shows compensatory saccades in all six canals.

VERTICAL CANAL TEST

Vertical canal testing consists of placing the patient’s head in a position that stimulates both the anterior and posterior canals during the head impulse. The Micromedical binocular goggles are labeled to aid the examiner in correct head position placement. Acronyms for this testing are LARP (left anterior/right posterior) and RALP (right anterior/left posterior). The RALP position is shown in both photos (above) and illustration.
To Preserve and Improve Balance

VORTEQ SENSOR SPECIFICATIONS
Micromedical's solid state sensor measures head angular velocity using a state-of-the-art silicon ring gyroscope. This technology has unsurpassed accuracy and durability.

- Frequency range from 1 Hz and up
- Velocity Range: +/- 500 degrees/second
- Size 1.25” x 0.65”
- Weight 1.6 oz

TURNKEY SYSTEM HARDWARE

COMPUTER: Choose either Mid-Tower or Laptop configuration with Windows® OS. (computer hardware shown in photos may differ from what is supplied with your system due to our commitment to provide you with the latest technology)

TARGET STIMULUS: Choose 32 or 42” TV; Digital Light Bar or LCD Projector

All systems include Micromedical’s proprietary EyeMax™ video recording and management where video is recorded. Stand-alone systems include V-Link.

ALSO AVAILABLE FROM MICROMEDICAL

THE SYSTEM 2000 IS AVAILABLE IN THE FOLLOWING CONFIGURATIONS:
- Reclining
- Comprehensive
- Auto- Traverse Micro-Centrifuge
  Child & Infant seat for assessing children - optional

VNG AND OPTIONS
- VisualEyes VNG – add nystagmus and caloric testing
- EOG - Electrode Capability
- Air Fx air caloric irrigator
- Aqua Stim water caloric irrigator
- Vorteq – Active Head Rotation Testing
- DVAT – Dynamic Visual Acuity Test
- VHIT – Video Head Impulse Test

CUSTOMER CARE

MICROMEDICAL’S KNOWLEDGEABLE STAFF IS DEDICATED TO ASSISTING YOU AND MAXIMIZING YOUR INVESTMENT BY:
- Providing on-site installation and training using factory representatives
- Providing technical, operational and interpretation assistance from Micromedical’s experienced support staff
- Sponsoring continuing education courses
- Including a one year hardware warranty
- Including one year of free software updates

QUALITY AND REGULATORY STANDARDS

All equipment is designed and manufactured under our ISO 13485 certified quality management system to meet U.S. FDA; Canadian; European and International Standards.
- CMDGAS
- ANSI S3.45-2009
- Medical Device Directive (MDD) to comply with EC Directive 93/42