



## Bertec® Vision Advantage™

The Bertec® Vision Advantage™ (BVA) identifies dysfunction in the vestibular ocular reflex (VOR) per the Dynamic Visual Acuity Test. The BVA provides a more objective test than the standard clinical DVA test with using an eye chart. The BVA also includes a Gaze Stability Test that identifies when the VOR falls below normal limits and whether there is an asymmetry between the left and right side. These advanced capabilities allow the clinician to customize treatment to the patient, resulting in optimal patient outcomes.

- Wireless and light weight head tracker
- Next generation VOR assessments
- Patient-specific baseline comparison
- Automatic sensor calibration
- New technology allows for unrestricted patient movements and more flexibility for clinicians
- Optimal patient outcomes



**Standard Package**

Wireless, lightweight head-worn sensor

Bertec Vision Advantage Software

Touch screen display and remote control

Wireless-computerized VOR training exercises with selectable controls for velocity and direction of head movement

Computerized Gaze Stabilization (GST) and Dynamic Visual Acuity (DVA) tests

Headband: adjustable elastic band

Triaxial gyroscope, accelerometer and compass sensors

Dedicated product case for portability and storage of system

Online educational product videos for clinician

**Assessment Protocols**

Visual Processing Time (VPT) – this quick screen ensures the patient can process the optotype (letter “E”) stimuli quickly enough to use DVA and GST protocols accurately and reliably.

Baseline Visual Acuity (BVAT) measures a patient’s visual acuity with the head stationary. The results are then used for comparison to visual acuity while the head is moving during DVA and GST protocols.

Dynamic Visual Acuity (DVA) provides an assessment of the smallest character the patient can identify accurately while the head is moving at a specific and constant velocity. Data can be collected for any axis of rotation (yaw, pitch, or roll) and are analyzed and reported for each direction of rotation separately. Results indicating significant loss of visual acuity in one or both directions are considered an indication of VOR impairment.

Gaze Stabilization Test (GST) measures the head velocity, axis, and direction where visual accuracy breaks down. Results provide insight into a patient’s effective use of VOR as it relates to functional demands for activities of daily living, and clinicians can use the data to make training decisions and document progress.

Patient Training uses computerized VOR training to simulate gaze stabilization X1 exercises, with selectable controls for velocity and direction of head movement. Training exercises are customized to patient performance on DVA and GST and can be programmed to progress through varying levels of challenge depending on patient’s successful completion. Progress reports are automatically stored for printing.

**Specifications**

Head rotation can be measured in yaw, pitch and roll planes

Modular software design to fit your needs

Multiple Axis of Rotation

Wireless Inertial Measurement Unit (IMU)

Sampling Frequency: 175 Hz

Communication Range: Up to 20 feet +

Charging device: USB cable

Use per charge: Up to five hours

Battery: Rechargeable lithium-polymer

Patented and HIPAA compliant patient database with merge and sync capabilities across all Bertec® Balance Advantage® products

Recommend use with surgical bonnets (package of 100 supplied with purchase)

For more information, contact Bertec at 614-543-8099 or by email at [info@bertec.com](mailto:info@bertec.com)