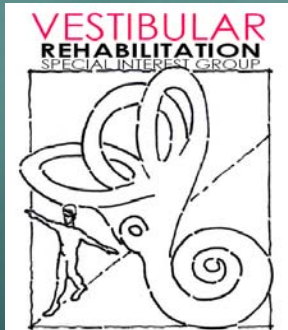


Physical Therapy Evaluation for Dizziness and Postural Instability

FACT SHEET



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When information from one or both inner ears is reduced or absent, the brain becomes increasingly dependent on other forms of sensory information, such as visual and somatosensory input. Damage or loss of inner ear input can result in a wide range of symptoms including imbalance, dizziness, vertigo, nausea, motion sensitivity, and blurred vision.

A physical therapist specializing in vestibular treatment can best help with the differential diagnosis and evidence-based treatment of individuals with dizziness, vertigo, and unsteadiness. Components of a specialized examination, with some specific examples, are listed below:

- **Oculomotor and vestibulo-ocular testing**

- ◊ Dynamic Visual Acuity – investigating the nervous system organization of head and eye motion, through the vestibulo-ocular reflex.^{1,2}

- **Positional and movement testing**

- ◊ Dix-Hallpike – test for benign paroxysmal positional vertigo (BPPV).³

- ◊ Motion Sensitivity Quotient – objectively documenting the relative sensitivity of various movements and positions on the patient's symptoms of dizziness.⁴

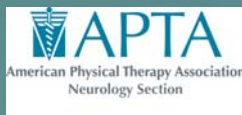
- **Balance assessment**

- ◊ Clinical test of Sensory Integration in Balance (CTSIB) that helps to determine what role each of the three sensory systems (vestibular, visual and somatosensory) are playing in the patient's balance responses.^{5,6}

- ◊ Computerized Dynamic Posturography (CDP) – using a force plate, visual target and moving surround to objectify the patients capabilities to resolve sensory conflict in efforts to balance in standing.⁷

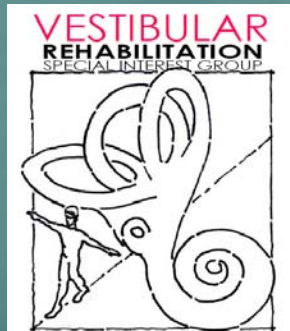
- **Gait evaluation**

- ◊ Dynamic Gait Index (DGI) – used to objectively rate balance in walking and the responsiveness or sensitivity of the vestibular system to everyday activities.⁸



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- **Proprioception, kinesthesia, touch, and pressure assessment**
- **Coordination**
- **Range of motion and strength**
- **Postural assessment**

Many pathologies cause vertigo, dizziness, or imbalance – some are listed below. Rely on a trained Vestibular Physical Therapist for the best rehabilitative care of these conditions.

Acoustic neuroma	Bilateral vestibular loss	BPPV
Cervicogenic dizziness	Chronic subjective dizziness	Concussion
Labyrinthitis	Meniere's disease	Meningitis
Migraine	Multisensory disequilibrium	Neuritis
Syphilis		

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