

Balance /Dizziness

Vestibular

Physical Therapy Specialists is proud to announce our Balance and Dizziness Center of Siouxland

Reasons to call us:

- Dizziness or Vertigo
- Imbalance or unsteadiness
- Tinnitus
- Decreased strength or endurance
- Risk of falls
- Post head injury/concussion
- Impact study

Vestibular Rehabilitation Therapy (VRT)

Is an exercise-based program designed to promote Central Nervous System compensation for inner ear deficits.

The goal of this program is to retrain the brain to recognize and process signals from the vestibular system in coordination with vision and proprioception. This often involves desensitizing the balance system to movements that provoke symptoms.

Why is VRT needed?

When the vestibular organs are damaged with disease or injury, the brain can no longer rely on them for accurate information about equilibrium and motion. As a result, some of the following symptoms may be seen:

- Dizziness
- Vertigo
- Balance problems
- Nausea
- Headaches
- Nystagmus

Pathophysiology of Common Vestibular Disorders

- Vestibular Neuritis
- Benign Paroxysmal Positional Vertigo (BPPV)
- Labryrithitis
- Inflammation of the inner ear caused by a virus
- Meniere's Disease
- Overproduction of endolymph that causes edema of the endolymphatic spaces and damages hair cells in the cochlea and vestibular organs
- Acoustic Neuroma
- Cervical Vertigo
- Head Trauma

What happens during VRT?

A thorough evaluation process is conducted to determine a comprehensive problem list affecting the person's ability to function. Four main areas are assessed:

- Neuromuscular evaluation
- Visual Motor Assessment
- Balance Assessment
- Vertigo Assessment

Vestibular habituation/Adaptation Exercises

Specific movements that provoke the patient's dizziness are provided and the patient is asked to repeat these movements until the brain habituates the response or adapts to the conflicting information. This process resolves the conflict between the brain and the inner ear.

Visual Motor Exercises

The vestibulocochlear nerve has a connection that goes to the eye muscles and can affect the person's ability to maintain their gaze and focus. If dysfunction is identified in this mechanism then visual motor exercises are given for gaze stabilization and eye-head coordination.

Canalith Repositioning Procedures for Benign Paroxysmal Positional Vertigo (BPPV)

A specific maneuver involves moving the patient's head in a sequence of positions for a certain time in order to move the otoconia around the semicircular canals and reposition them into the proper place in the inner ear. This procedure is 95% effective in eliminating BPPV in 1-4 visits.

Balance Retraining Exercises

Specific exercises designed to reduce unsteadiness and imbalance through coordination of muscle responses as well as the organization of sensory input from eyes, inner ear, and tactile/muscle receptors for balance and control.