

An Introduction to Balance Disorders

Prepared by: Jordan Tucker, PT, DPT and Cynthia Ryan, MBA

Disclaimer: This presentation is not meant as a substitute for medical care.

What You Will Learn

- Balance and the vestibular system
- What is a vestibular disorder?
- Causes of vestibular disorders
- Symptoms of vestibular disorders
- How are vestibular disorders diagnosed?
- > Treatment for vestibular disorders
- Where to get help



What does "vestibular" mean?

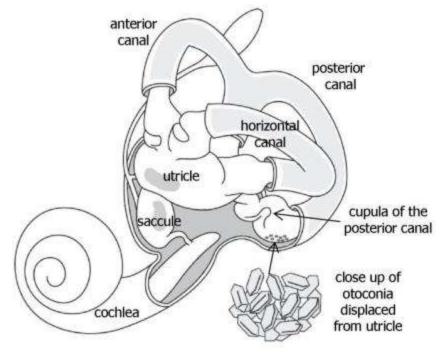
The **vestibular system** includes the parts of the inner ear and brain that process the sensory information involved with controlling balance and eye movements.



Maintaining balance depends on information received by the brain from the eyes, muscles and joints, and vestibular (inner ear) organs.

The Inner Ear

Sensory information about motion, equilibrium, and spatial orientation is provided by the inner ear, which includes the utricle, saccule, and three semicircular canals.



The utricle and saccule detect gravity (vertical orientation) and linear movement. The semicircular canals detect rotational movement and are filled with a fluid called endolymph.

A Little Bit About Balance

The human balance system is responsible for:

- Seeing clearly while moving
- Knowing which way is up
- Knowing what direction and how fast you are moving
- Making posture adjustments to catch you if you are losing your balance or walking on uneven surfaces.



What causes vestibular disorders?

- Viral infections
- Head trauma
- Drugs or chemicals that are toxic to the inner ear or brain
- Degeneration with aging
- Genetic conditions
- Exposure to loud noises
- Unknown reasons





Who is affected by vestibular disorders?



An estimated 35% of adults 40 and older (approximately 69 million) in the United States have experienced a vestibular disorder.

Vestibular disorders also affect children, which can result in learning deficits if left undiagnosed.

Vertigo/Dizziness



Vertigo:

- Spinning
- Whirling
- Illusion of movement

Dizziness:

- Lightheadedness
- Floating
- Rocking
- Feeling of being pulled in one direction

Imbalance and Spatial Disorientation



- Difficulty walking & turning
- Decreased coordination
- Looking at the ground
- Tilted head
- Holding onto furniture while walking
- Sensitivity to changing walking surfaces
- Difficulty finding balance in large open spaces

Vision Changes



- Trouble focusing or tracking objects
- Objects/words bounce or move or appear doubled
- Sensitivity to light/glare/technology
- Discomfort from busy environments (traffic, crowds, stores, patterns, movies/TV)
- Looking at closer objects instead of far away objects

Hearing Changes



- Hearing loss
- Tinnitus(ringing/roaring/buzzing)
- Noise sensitivity
- Loud noises increase dizziness, vertigo, imbalance

Cognitive Problems



- Difficulty concentrating or paying attention
- Short term memory difficulties
- Difficulty focusing on conversation especially in loud places
- Greater than normal mental or physical fatigue

Psychological Issues



- Loss of self-reliance
- Loss of self-confidence and/or self-esteem
- Anxiety/panic
- Social isolation
- Depression

Other Symptoms



- Nausea, vomiting
- "Hangover" type feeling
- Motion sickness
- Headaches
- Slurred speech
- Sensitivity to pressure or temperature changes and wind currents
- Pain, pressure or other symptoms with diet changes

How to get diagnosed

Vestibular disorders are often missed by primary care practitioners. It is important to see a healthcare professional with vestibular training to help you find the cause of your symptoms.



Diagnostic Tests

Types of tests your doctor may order to help diagnose a vestibular disorder:

Balance



Vision



Hearing



See VEDA's website for a specific list of diagnostic tests.

Types of Vestibular Specialists

- ENT (otolaryngologist)
- Otologist/neurotologist
- Neurologist
- Otoneurologist
- Audiologist
- Physical & Occupational Therapists

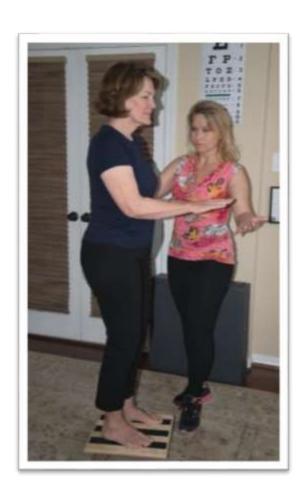
Healthcare providers within each of these specialty areas must be specially trained to work with vestibular patients.

Visit VEDA's online provider directory to find a vestibular specialist near you: vestibular.org

The treatment path you and your medical team decide upon will vary greatly from person to person and depends on the type and severity of your diagnosis and symptoms, life factors such as work and family, and how you decide to manage your disorder.



Vestibular Rehabilitation Therapy ("VRT")



VRT is like physical therapy for vestibular disorders. Therapists are specially trained to provide specific exercises that retrain the brain to recognize and process signals from the vestibular system. VRT is most effective when practiced regularly.

Positioning Maneuvers

The canalith repositioning maneuver – also referred to as the Epley maneuver - is used treat benign paroxysmal positional vertigo (BPPV), which is caused when the crystals in the inner ear are dislodged. This procedure helps put those crystals back in place.



This treatment corrects BPPV in 90% of cases.

Home-Based Exercise

Exercises may be assigned by a vestibular therapist to help you continue your vestibular rehabilitation therapy at home. These will be individually assigned based on your symptoms and goals.



Dietary Adjustments

Diet can be helpful in managing several vestibular disorders such as Meniere's, secondary endolymphatic hydrops and migraine-associated dizziness.





Talk Therapy/Counseling

Vestibular disorders are invisible and unpredictable, often causing anxiety and depression. Counseling can help you learn to cope.





Medication

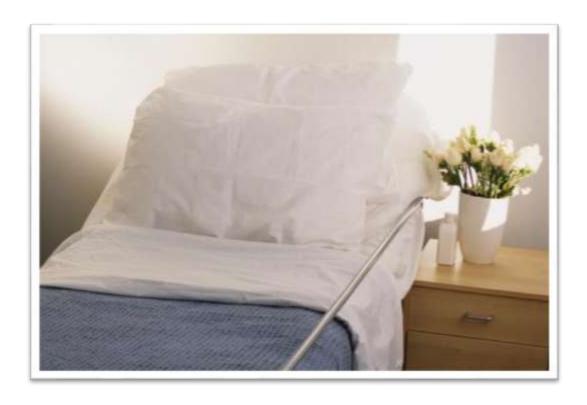
Medication may be used to treat the cause, control the symptoms, accelerate compensation, or diminish the psychological impact of a vestibular disorder.



Examples of medications include anti-nausea drugs such as meclizine and anti-anxiety medications such as Valium.

Surgery

For some vestibular disorders, surgery on the affected area of the inner ear may be considered to help relieve the symptoms or cause of the disorder.



Alternative Therapies

- Tai Chi
- Acupuncture
- Chiropractic
- Yoga
- Meditation
- Reiki
- Virtual reality gaming platforms



I think I have a vestibular disorder. What do I do?

There are many resources on VEDA's website that can help you:

- Visit our 'Symptoms' page
- 2. Download a 'Medical History Form'
- 3. Use our online provider directory to search for a vestibular specialist near you.



Where to Get Help



VEDA serves people with vestibular disorders by providing information and support to help them understand and cope with their condition, and by connecting them to vestibular specialists. See VEDA's website for:

- Educational Resources
- Professional Provider Directory
- Support Group Network Directory

http://vestibular.org

800-837-8428 info@vestibular.org

Also look for VEDA on Facebook, Twitter and Pinterest