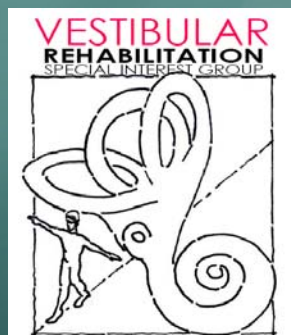


FACT SHEET



# Bilateral Vestibular Loss

Author: Laura O. Morris, PT, NCS



*Bilateral vestibular loss* refers to damage to the inner ears on both (bilateral) sides. It is commonly caused by medications that are toxic to the inner ear. Other possible causes include bilateral Meniere's disease, otosclerosis, Paget's disease, meningitis, congenital abnormalities, bilateral acoustic neuroma, syphilis or autoimmune inner ear disease. Symptoms of bilateral loss include loss of balance, difficulty walking, unsteadiness in the dark or with eyes closed and bouncing/blurred vision.

The vestibular system is made up of two inner ears that have nerve connections to the brain and the eyes. This system helps you to know where you are in space and controls eye and head coordination. The vestibular system coordinates with vision and the sensations of your feet on the floor to keep you balanced. If both inner ears are damaged, as determined through vestibular testing, the brain has decreased sensory information available to help with movement. Without any information from the inner ears, the brain becomes dependent on sensation from other sources, such as your eyes and your feet on the floor. This loss of inner ear input can cause imbalance while walking and performing everyday tasks. Because the inner ears are no longer communicating well with the brain and eyes, a sense of "jumping" or "bouncing" vision can occur. This is called *oscillopsia* and may feel like blurred vision or difficulty focusing.

A course of vestibular rehabilitation is often recommended to improve balance and function for patients with bilateral vestibular loss. Physical therapy will not restore inner ear function but will help the brain to reorganize the available information to maintain balance. The purpose of physical therapy in this case is to encourage the use of the other sensory systems used for balance—vision and the sensations of the feet on the floor, known as *proprioception*. By emphasizing the use of these senses, patients can compensate for their loss of vestibular input with a strengthened sense of vision and body sense. Since vision can be impaired due to oscillopsia, eye/head coordination exercises are used to improve visual clarity while the head is moving. The physical therapist may recommend the use of a cane to improve balance. Household modifications may also be suggested, such as removing loose rugs, adding night-lights for better vision in the dark, and installing handrails in stairwells and/or in the bathroom, to decrease the risk of falling.

If there is an abnormality in the vestibular system, the symptom of dizziness can be the result. If one already has a tendency toward anxiety, dizziness from the vestibular system and anxiety can interact, making symptoms worse. Often the anxiety and the dizziness must be treated together in order for improvement to be made.



1111 North Fairfax Street  
Alexandria, VA 22314-1488  
Phone: 800-999-2782,  
Ext 3237  
Fax: 703-706-8578  
Email: [neuropt@apta.org](mailto:neuropt@apta.org)  
[www.neuropt.org](http://www.neuropt.org)