

## 2017 October Health Notes by Evelyn Ames Balance Disorders - *Vertigo!*

Vertigo? What does it mean? Whose vulnerable? What are treatments for balance disorders? October's notes are not about Hitchcock's famous film "Vertigo" with Jimmy Stewart and Kim Novak but why people of our age are experiencing this health issue. "Vertigo refers to a sense of dizziness. It is a symptom of a range of conditions. It can happen when there is a problem with the ear, brain, or sensory nerve pathway."

What is a balance disorder? It is a condition that makes one feel unsteady or dizzy. Whether standing, sitting, or lying down, a person might feel a moving, spinning or floating sensation. If walking, one might suddenly feel like tipping over. The estimate is that four of 10 Americans experience will experience an episode of dizziness. Balance disorders can impact daily activities and lead to psychological or emotional issues.

Symptoms: staggering or teetering when walking or falling when trying to stand up. Other symptoms: spinning sensation, feeling as if one is going to fall, lightheadedness, faintness, floating sensation, blurred vision, or disorientation. Other symptoms may include nausea/vomiting, fear/anxiety/panic, and changes in blood pressure and heart rate. Symptoms may come and go or last a long time.

Causes: medications, ear infections, head injury, buildup of ear wax, or other issues affecting the inner ear or brain. Low blood pressure may cause one to feel dizzy when standing up too soon. Eye muscle imbalance or arthritis can be causes. Just getting older affects balance! Many balance disorders start suddenly with no obvious cause!

Benign paroxysmal positional vertigo (BPPV): the vestibular labyrinth (tiny organ in the ear) includes three semicircular canals that contain fluid and fine, hair-like sensors that monitor the rotation of the head. The otolith organs in the ear monitor movements (up and down, right and left, back and forth) of the head's position to gravity. Otolith organs contain crystals that make one sensitive to gravity. Sometimes these crystals become dislodged and move into one of the semicircular canals, causing a person to feel dizzy with head position changes. Symptoms commonly last less than one minute. Episodes of BPPV can disappear and then recur. Episodes generally are brought about by a change in one's head position. BPPV is more common in people 50 and older and in women. If experiencing dizziness associated with benign paroxysmal positional vertigo (BPPV), consider these tips: Be aware of the possibility of losing balance; sit down immediately when feeling dizzy; use good lighting if getting up at night; walk with a cane for stability if at risk of falling; and work closely with health care provider to manage symptoms effectively.

When to seek medical help. NIDCD (National Institute on Deafness and Other Communication Disorders) suggests people seek help if they answer yes to any of the following questions: Do I feel unsteady? Do I feel as if the room is spinning around me? Do I feel as if I'm moving when I know I'm sitting or standing still? Do I lose my balance and fall? Do I feel as if I'm falling? Do I feel lightheaded or as if I might faint? Do I have blurred vision? Do I ever feel disoriented—losing my sense of time or location?

What is happening in research: studies are using mice to look at the molecular mechanism that regulates the development of the inner ear. Researchers are testing vestibular prostheses (miniature devices similar to cochlear implants) to regulate function of balance organs in the inner ear. Additional studies are looking at the effectiveness of different types of exercises (e.g., canalith repositioning) to treat balance disorders. Virtual reality technology is another study with human subjects.

Sources: <https://www.nidcd.nih.gov/health/balance-disorders>  
<http://www.mayoclinic.org/diseases-conditions/vertigo/basics/definition/con-20028216>  
<http://www.medicalnewstoday.com/knowledge/160900/vertigo-causes-symptoms-treatments>

Structures of balance system inside inner ear (NIH Medical Arts)

