

Causes of dizziness and imbalance



Feelings of dizziness can mean many things and are often linked to problems affecting the equilibrium system. A few symptoms of dizziness and imbalance include experiencing blurry vision or spinning (vertigo), and feeling lightheaded, faint, weakness and general unsteadiness. The following are a few common causes for dizziness and imbalance:

Benign paroxysmal positional vertigo (BPPV)

BPPV is the most common cause of vertigo. In fact, this condition will affect approximately 50 percent of individuals over 70 years of age at least once in their lives. BPPV is caused by small calcium carbonate particles (otoconia), which are normally found in the inner ear. These particles can become displaced and migrate into one of the ear's semicircular canals, where they do not belong. This condition is characterized by brief and intense episodes of vertigo that occur with a change in position. BPPV may be the result of the natural aging process, illness, a change in medication, or head trauma. Often, no known cause for BPPV can be identified.

Loss of balance and unsteadiness

Issues affecting the equilibrium system of the inner ear can result in a feeling of unsteadiness, a loss of balance and/or falls. We use three primary systems to maintain our balance (vision, touch, inner ear) and a disruption to any of these systems can result in imbalance. It is important for individuals who are off balance to be appropriately evaluated so the contribution of each system can be closely observed.

Migraine

When many individuals think of migraine, headache immediately comes to mind. It is important for patients to understand that migraines can present with a number of different symptoms. One of these symptoms is related to the perception of dizziness or vertigo. Interestingly, research has shown that as many as 25 to 30 percent of individuals who suffer from migraines also experience vertigo as an aura. Many of those with vestibular migraines do not experience headaches at the same time as their dizziness.

Vestibular neuronitis / Neuritis

Vestibular neuronitis is the second leading cause of vertigo. This condition is typically characterized by a rapid-onset vertigo that is not accompanied by hearing loss. Patients may experience an intense spinning sensation with nausea and vomiting. These intense symptoms typically improve over the course of several days, with gradual improvement over the next few months. Vestibular neuronitis can occur as a single attack or multiple attacks. This condition is related to inflammation of the inner ear and may be related to a viral infection.

Dizziness and imbalance evaluation

A comprehensive battery of tests may be performed during your evaluation. In some cases, testing may take up to two hours. Prior to each test, we will give you a detailed explanation so you can gain a better understanding of what we are measuring and what to expect.

Evaluating and treating equilibrium disorders

Problems with the equilibrium system can result in dizziness, vertigo, and imbalance. The equilibrium system is very complex and cannot be directly observed. To truly understand a patient's equilibrium, a number of tests must be performed, correlated, and compared.

Balance disorders are often accompanied by changes in hearing and/or ear function. These changes can be acute and hardly noticeable by the patient. Your testing will include comprehensive testing of your outer, middle, and inner ears. These tests include audiologic, and tympanometry / immittance tests.

A number of complex pathways control our equilibrium. Your evaluation will include sophisticated measures of these pathways and your central nervous system. These tests are:

- Ocular motor testing
 - Head shake saccades
 - Head thrust smooth pursuit
- Proprioceptive testing
 - Fukuda step test
 - Sensory organization testing
- Positional testing related to inner ear

Tests used to evaluate dizziness and imbalance

Audiologic testing: Evaluates the hearing portion of a patient's ear. This allows us to define cause, type and degree of hearing loss. This testing is important for dizzy and off-balance patients because small unnoticed hearing changes can indicate inner ear damage or other medical problems.

Dynamic Visual Acuity Test: This test is fairly similar to the VAT, but the test protocol is slightly modified. It may be easier for some patients to perform.

Fukuda step test: gives insight on how the patient proprioceptive tough eyes, and inner ear work together to maintain stability.

Ocular Motor testing: Which can include head trusting, head shake, smooth pursuit and saccades. Can give insight to the function of the inner ear and eyes.

Sensory Organization Test: This test helps us identify balance problems. With careful evaluation, it allows your audiologist to determine the cause of your imbalance and identify a potential fall risk.

Tympanometry / immittance testing: Helps us rule out fluid in the middle part of the ear, which can impact other vestibular test results. This test also allows us to evaluate nerve responses.

Dizziness and imbalance treatment

It has been estimated that approximately half of all people living in the United States will be affected by vestibular problems (balance problems) at some point during their lives. While vestibular problems tend to occur later in life, they can certainly affect individuals of any age, including children and infants. Vestibular disorders can be caused by certain syndromes, disease, trauma, or toxins. Fortunately, most causes of dizziness are easily identified and easily treated.

When determining how to treat your dizziness, the first challenge is to identify the primary cause. Often, dizziness is caused by a vestibular disorder or problems in the inner ear, which controls an individual's sense of balance. Sometimes, underlying causes can be attributed to the central nervous system, or bacterial or viral infections. Dizziness can also be a symptom of high blood pressure or other cardiovascular problems.

A number of well researched, successful, and widely used treatments and management strategies are available for problems of the equilibrium system. These treatments address such issues as vertigo, dizziness, lightheadedness, and balance problems. All forms of treatment should be preceded by a comprehensive evaluation and diagnosis; this ensures that the specific treatment chosen is appropriate for you.

By evaluating and properly treating inner-ear disorders, dizziness and imbalance can often be improved.

Self quiz for dizziness and balance problems

Ninety million Americans will experience dizziness or balance problems at some time in their lives. Listed below are common complaints or problems reported by patients.

Have you ever felt ...

1. A feeling of motion, spinning, or falling when moving your head quickly, or changing your position, e.g. getting in and out of bed?
2. Uncomfortable trying to get around in the dark?
3. Walking down grocery store aisles or through the mall is upsetting?
4. Your feet just won't go where you want them to?
5. A sense of unsteadiness? A feeling you are not surefooted?
6. A fear of falling or stumbling?
7. Looking at moving objects such as escalators or looking out the side window of a car makes you queasy?
8. Difficulty keeping your balance as you walk on different surfaces, e.g. tile to carpet?
9. A feeling like you are drifting or being pulled to one side when walking?
10. No one really understands how frustrating all this is?

If you answered yes to one or more of these questions, you may have an equilibrium disorder. The good news is that 90 percent of the time, these disorders can be successfully treated once they have been properly diagnosed. Schedule and appointment today for a vestibular and equilibrium evaluation with one of our audiologists.