



EAR, NOSE, & THROAT CENTER OF THE OZARKS

Dizziness and the Inner Ear

How does your body maintain balance?

Maintaining balance requires a complex networking of several different parts of your body. To maintain balance (or your desired body position while sitting or standing), your brain must coordinate a constant flow of information from your eyes, muscles and tendons, and inner ear. All of these parts of the body work together to help keep you upright and provide you with a sense of stability when you are moving.

Some problems with dizziness can originate from the inner ear. However, problems in your brain, circulation of blood to the brain, or any part of the system that controls your balance can also cause dizziness and imbalance.

Describing your dizziness

Your healthcare team will probably ask you to describe your symptoms. Unfortunately, the word “dizziness” is often used to describe a variety of different sensations. Your specific description of your problem can help in both the diagnosis and treatment. The following descriptions may help you identify your sensations so you can more clearly describe your symptoms.

- **Vertigo** is the sensation that you or your surroundings are rotating. You may feel that the room is spinning or slowly rotating. Or, you may sense the rotation within your own head or body.
- **Imbalance** is the sensation that you must touch something to maintain your balance. Or, imbalance may be more severe, making it difficult to stand without falling.
- Other types of dizziness include feelings of being **light headed** and the sensations of **floating** or **near fainting**.

Diagnosing the problem

Because problems of dizziness and balance can have many different causes, making a diagnosis usually requires a complete history and several tests. Dizziness has many causes

and your treatment will depend on the type of dizziness or balance problem you have. Tests are available that can accurately indicate when there is a problem involving the balance portion of the inner ear.

Below are brief descriptions of various common balance problems related to the inner ear and their treatments.

Benign positional vertigo

Benign positional vertigo (BPV), a type of inner ear disorder, causes dizziness to occur abruptly when you move your head up and down, or, for example, when you turn over in a bed. This may be associated with a sense of nausea. These symptoms fade within a few seconds to minutes—especially if you remain still. BPV is caused by free-floating debris or crystals within the fluids of the inner ear. A brief series of very simple positioning exercises can be undertaken at the doctor or physical therapist's office to eliminate or reduce the symptoms you may experience with BPV.

Meniere's disease

Meniere's disease is marked by severe, periodic attacks of vertigo hours, months, or even years apart. In addition to vertigo, common symptoms often include nausea, vomiting, ringing or roaring in the ear, fullness or pressure in one ear, and hearing loss. The cause of Meniere's disease is not known, but abnormalities in inner ear fluid pressures are suspected to play a role in this condition. In most cases, a special diet and/or medications will relieve most symptoms. If symptoms of Meniere's disease are severe, surgery may be recommended.

Labyrinthitis or Vestibular Neuritis

Inflammation and/or infection involving the inner ear can result in prolonged vertigo or imbalance. Loss of hearing can also occur with this condition. Usually, this is treated with medications that reduce inflammation and control nausea. Once this has cleared, returning to normal physical activity is important. Balance strengthening exercises may be needed to help encourage compensation and recovery within the balance system.

Other inner ear balance problems

- Tumor (may involve the ear itself or nerves of balance/hearing)
- Perilymph fistula (ongoing leak of inner ear-fluids)
- Cholesteatoma (growth of skin into the ear resulting in inner ear damage)
- Temporal bone fracture (skull bone that includes the ear is broken)
- Superior canal dehiscence (portion of inner ear boney covering is absent)
- Autoimmune inner-ear disease (immune system causes damage to the inner ear)
- Labyrinthine concussion (shock to the inner ear from physical trauma)
- Motion sensitivity (brain is very sensitive to input from inner ear or other balance organs)

Summary

Maintaining balance requires coordination of several parts of your body, including the inner ear. Problems with any one of these parts can cause dizziness and imbalance. Accurate diagnosis and proper treatment requires thorough evaluation by your physician and possible further testing by a specialist.