The Academic Difference

The Medical College of Wisconsin Otology Division has specialized board-certified training in treating disorders of the hearing and balance systems. We have had years of clinical experience treating this disorder. This expertise provides the patient access to the most up-to-date techniques and treatments for BPPV.

The Froedtert Hospital Vestibular Therapy Program is staffed by physical therapists with specialized training in the assessment and treatment of vertigo and balance disorders. We have received extensive education in the evaluation of BPPV and stay up to date with the latest treatment techniques.

The partnership between the Medical College of Wisconsin and Froedtert Hospital ensures that the best minds and best clinical services work together to provide the best care possible.

What is BPPV?
Diagnosis, Symptoms and Management

Otoconia are normally embedded in a gel-like substance on the utricle but can become displaced into the semicircular canals. This causes dizziness with specific head positions.

This maneuver, called a Dix-Hallpike maneuver, is commonly used to help diagnose BPPV. If positive it can cause vertigo and eye movements called nystagmus. The ear affected would be the one toward the ground.

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Benign Paroxysmal Positional Vertigo

Benign Paroxysmal Positional Vertigo (BPPV) is the single most common cause of dizziness. Benign means not dangerous or life-threatening; paroxysmal means occurs in episodes; positional means that it only occurs in certain head positions; and vertigo means it causes a sensation of movement, usually a spinning sensation. BPPV accounts for 20% of all dizziness and approximately 50% of all dizziness in individuals over the age of 65.

BPPV is caused by the movement of calcium crystals (otoconia) in the inner ear. The inner ear is made up of the utricle, the saccule, and three semi-circular canals (Fig A). Normally, the crystals are embedded in a gel-like substance and are sensitive to gravity. As a result of head trauma, virus, or the aging process, crystals can become loose and travel into one of the semi-circular canals. The role of the semi-circular canals is to sense head movements and position changes. When the crystals move in the canals, during changes in head position, this causes a sensation of vertigo. The dizziness or vertigo typically lasts a few to 60 seconds and may be accompanied by a sensation of nausea and imbalance. Some individuals are more sensitive to dizziness and may feel ill for hours afterwards. Common movements that will bring on the symptoms include: rolling over in bed, lying down or sitting up in bed, looking up, or bending over. Many people notice the vertigo during a dentist or hair stylist appointment because the position of the head when they lay their head back causes the crystals to move in the semi-circular canals.

Diagnosis and Treatment

Diagnosis

BPPV is diagnosed by a careful history focusing on your description of your symptoms. A physical examination that demonstrates the presence of intense vertigo and the observation of nystagmus (quick eye movements) is also important. Your healthcare provider can diagnose this condition based on your symptoms and a test called the Dix-Hallpike maneuver, which can be performed quickly and easily in the clinic (Fig B). Sometimes your provider will place special magnifier glasses over your eyes to better diagnose this condition.

Treatment

The treatment for BPPV can be performed by a qualified health care provider, commonly a physical therapist. The treatment consists of the patient being led through a series of rolls and head turns (canalith repositioning maneuvers). The proper treatment maneuver will be determined by the clinician based upon the determined location of the crystals in the semi-circular canals. These treatments have been shown to be very effective in the treatment of BPPV. In a study of 592 patients diagnosed with BPPV symptoms resolved after the first maneuver in 84% of the cases. In other cases, two and occasionally three or more maneuvers were necessary for treatment. In very rare cases surgery may be indicated for BPPV that fails physical therapy. BPPV may recur after successful treatment but this can be months or years later.

Post-Treatment Considerations

After treatment it is common to feel a “fogginess” or “imbalance” for 48-72 hours. You may wish to have someone drive you to and from your appointment, as you may feel dizzy or nauseous following the treatment. Your health care provider may recommend that you follow certain precautions after the treatment maneuver is performed, including: not laying on the affected side, and sleeping with your head elevated for the next 72 hours.

There is a chance that the BPPV will recur. The recurrence rate for BPPV is 43% over two years. Certain factors may affect the recurrence rate, with higher recurrence rates occurring in people with Meniere’s disease, migraines, and vestibular neuritis. Your therapist may instruct you on how to perform a self-maneuver to resolve future recurrences. Establishing care with a vestibular therapist can also provide more efficient access and treatment should BPPV recur.

REFERENCES


