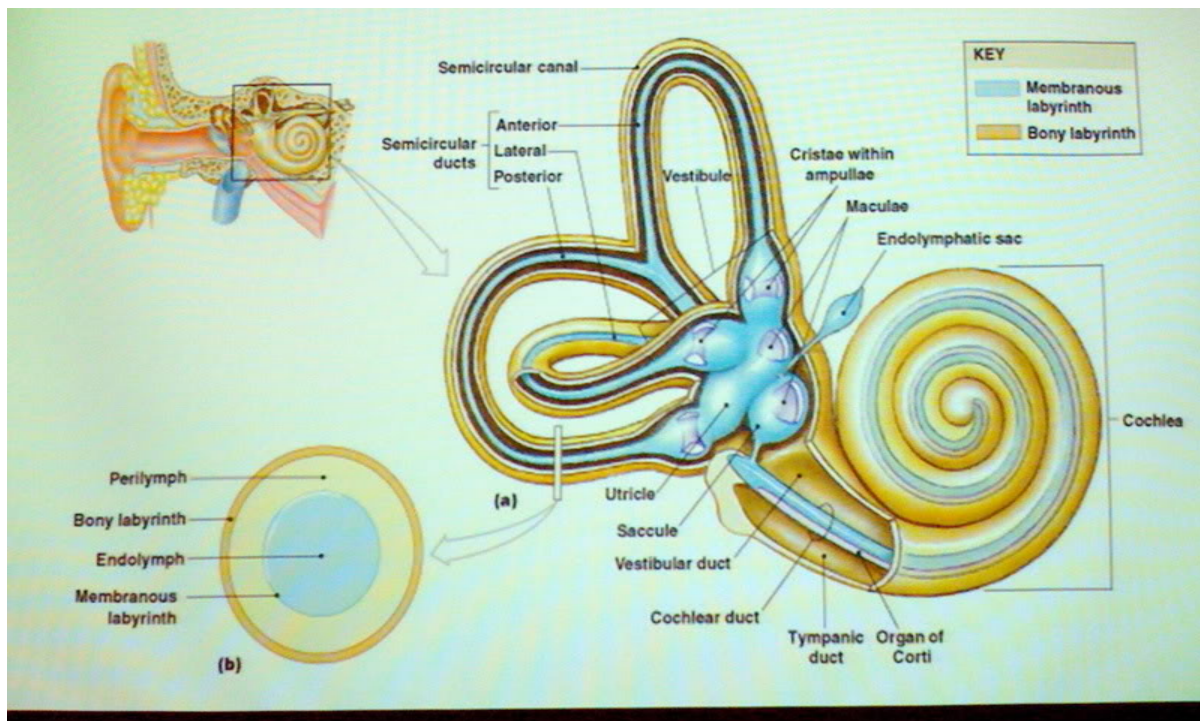


## Benign Paroxysmal Positional Vertigo (BPPV) “Ear Crystals”

### What is BPPV?

Benign Paroxysmal Positional Vertigo (BPPV) is dizziness which is thought to be caused by debris within the inner ear (area of the utricle). This debris is calcium carbonate crystals also as “otoconia”.



### What causes BPPV?

It is believed that in a healthy individual, the otoconia or crystals are contained in a section of the inner called the Saccule, and naturally dissolve or are reabsorbed by cells.

The most common cause of BPPV is damage to the utricle from head injury, infection, disorder of the inner ear, or degeneration due to age. In individuals under the age of 50, the most common cause of BPPV is head injury. In older individuals, the cause is most likely to be degeneration of the balance system within the inner ear. However, more than half of the cases of BPPV are labeled as “idiopathic”, which refers to unknown cause.

### **Symptoms of BPPV?**

Symptoms of BPPV include dizziness (vertigo), lightheadedness, imbalance, and nausea. These symptoms are generally brought on by a change of head position. The most common motion problems include getting out of bed or rolling over in bed, or tipping the head back to look up. BPPV is likely to be intermittent, present for a few weeks, stop for a period of time, and then reoccur.

### **Diagnosis of BPPV?**

BPPV is generally diagnosed based on history, and results of vestibular and auditory test. A vestibular test, Electronystagmography (ENG) will verify the presence of nystagmus (vertical eye jumping). An auditory test will rule out diseases such as Meniere’s Disease. An MRI can also be performed to rule out a stroke or brain tumor if it is suspected.

### **Treatment of BPPV?**

There are modifications which can be done to your daily activities to cope with this dizziness. Use two or more pillows at night, so your head is propped up. Avoid sleeping on the side which causes the dizziness. Sit on the edge of the bed and then slowly get up. Avoid bending down to pick things up, or looking up high above your head. Avoid lying flat on your back, or lying back such as at the dentist.

Exercises which can be performed at home such as The Brandt-Daroff Exercises (page 4) have a 95% success rate however they can be strenuous.

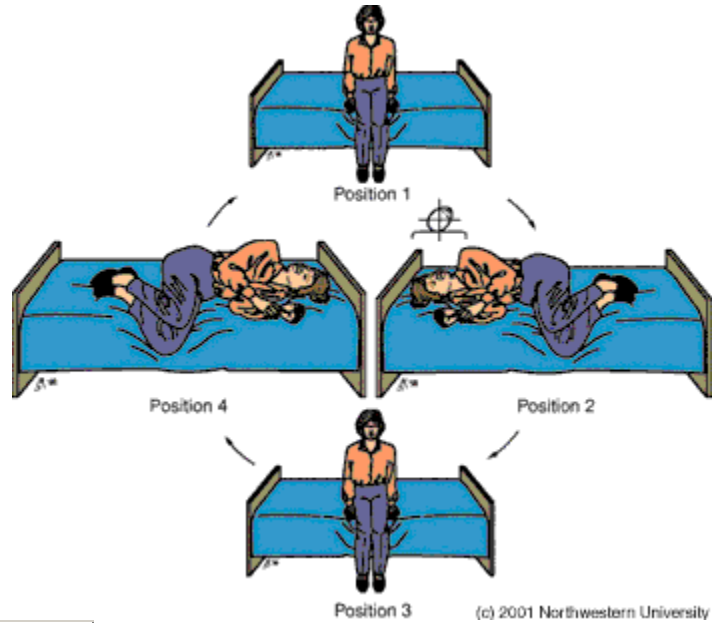
Physical Therapy is also a great treatment alternative and is generally less strenuous than the Brandt-Daroff Exercises. Not all Physical Therapists specialize in BPPV treatment therefore you may contact The Hearing Loss Clinic for a referral or call a Physical Therapist in your area for more information.

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Clinical Audiologist

## BRANDT-DAROFF EXERCISES

These exercises are performed in three sets per day for two weeks. In each set, one performs the maneuver as shown five times.

1 repetition = maneuver done to each side in turn (takes 2 minutes)



Suggested Schedule for Brandt-Daroff exercises		
Time	Exercise	Duration
Morning	5 repetitions	10 minutes
Noon	5 repetitions	10 minutes
Evening	5 repetitions	10 minutes

Start sitting upright (position 1). Then move into the side-lying position (position 2), with the head angled upward about halfway. An easy way to remember this is to imagine someone standing about 6 feet in front of you, and just keep looking at their head at all times. Stay in the side-lying position for 30 seconds, or until the dizziness subsides if this is longer, then go back to the sitting position (position 3). Stay there for 30 seconds, and then go to the opposite side (position 4) and follow the same routine..

These exercises should be performed for two weeks, three times per day, or for three weeks, twice per day. This adds up to 52 sets in total. In most persons, complete relief from symptoms is obtained after 30 sets, or about 10 days. In approximately 30 percent of patients, BPPV will recur within one year. If BPPV recurs, you may wish to add one 10-minute exercise to your daily routine.