

Benign Paroxysmal Positional Vertigo (BPPV)

Benign paroxysmal positional vertigo is one of the most common causes of vertigo and one of the easiest to treat. As the name suggests, it is *benign*, meaning it is not life-threatening and is generally not progressive. It is characterised by sudden (*paroxysmal*) and often severe episodes of dizziness caused by changes in *position*. Common triggers are sitting up in bed, rolling over or moving the head. It can come and go, often for no apparent reason. A person may have frequent attacks of dizziness over a period of weeks then have nothing at all for some time.

How does BPPV occur?

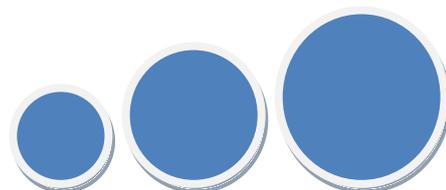
It is thought that BPPV is caused by 'crystals' of calcium carbonate (*otoconia*) coming loose within the inner ear. The inner ear is made up of three canals filled with fluid (the semicircular canals). Each canal is tilted at a different angle so that when the head is moved and the fluid rolls in a certain direction, sensors within the canals let the brain know which way the head is moving. Usually the crystals of calcium carbonate are held in a reservoir called the *utricle*. In BPPV, they loosen from the utricle and enter the canals. When the head moves, the crystals shift, sending a false signal to the brain, producing *vertigo* and often *nystagmus* (jerking of the eyes) as well.

Symptoms

- Sudden severe episodes of vertigo
- Dizziness
- Lightheadedness
- Nausea
- The eyes may drift and flick uncontrollably (nystagmus)
- Difficulty concentrating

Causes

- Head injury (loosening of the crystals from a concussive force)
- Ear injury
- Ear surgery
- Surgery that results in a prolonged period of bed rest
- Whiplash
- Age-related degeneration of the inner ear
- Viruses affecting the inner ear such as vestibular neuritis and Meniere's disease



Diagnosis

- Medical History - conditions such as cardiac arrhythmia, multiple sclerosis and low blood pressure can all cause vertigo and dizziness so need to be ruled out.
- Physical Examination – this may include a number of tests. The GP may check for nystagmus, and may do a series of movement tests which include placing the head in deliberate positions to aggravate the inner ear.
- Ear tests – such as hearing tests
- Scans – such as MRI to check for the presence of otoconia in the semicircular canals

Treatment

Once the diagnosis has been confirmed as BPPV, treatment of the symptoms is often very straightforward and effective. The condition usually resolves completely on its own within six months but in the meantime, medication may be prescribed to control nausea and the patient may be referred to a physiotherapist trained in treatment of BPPV who will perform special manoeuvres to dislodge the crystals. These manoeuvres are effective 80% of the time on first application, but sometimes a second or occasionally a third visit is required. Your physio will also advise you on ways to manage BPPV and reduce the possibility of further attacks.

Sometimes, uninformed medical practitioners do suggest a “wait and see” approach but this only prolongs suffering and increases the risk of falls.

Self-management

While treatment to dislodge the crystals is the most effective way to relieve symptoms, there are a number of things patients can do themselves to help minimise symptoms. These include:

- Using two or more pillows in bed to stay in a more upright position
- Sleeping in a recliner chair
- Avoiding sleeping on the affected side and rising slowly from bed in the morning
- Avoiding looking up, such as at a high shelf or bending over to pick things up off the floor
- Being careful when positioned in a lying down (supine) position such as in a dentist’s chair or at the hairdresser’s.
- Being careful regarding playing sport.

