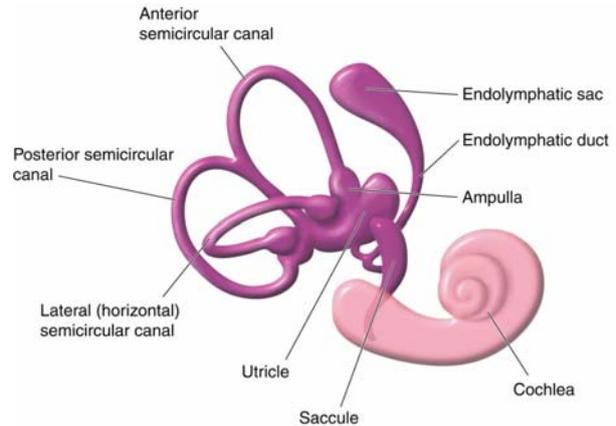


Benign paroxysmal positional vertigo (BPPV)

Right: Diagram of vestibular system with otolith organs & semicircular canals marked



Benign paroxysmal positional vertigo is the most common cause of vertigo symptoms. BPPV attacks are triggered by particular head movements. It may be things like lying down in bed, rolling to one side in bed, hanging the washing on the line, checking a blind spot in the car or getting things down from the top shelf of the pantry. Whichever head movement acts as a trigger, it is followed by an intense, brief sensation of spinning vertigo. The vertigo itself lasts for less than a minute and in most cases less than 30 seconds, although people may feel light headed, woozy or imbalanced for some time afterwards.

You may have heard people talk about the “crystals” with BPPV. These are otoconia which are calcium carbonate crystals and are a normal part of the inner ear. They normally sit on top of the otolith organs – the utricle and the saccule. The otoconia add weight to the otoliths, making them heavy and creating drag when the head accelerates or decelerates. Without these otoconia we wouldn’t be able to detect movement in a lift or know that the train is moving when we aren’t looking out of the window.

The otoconia should be in our inner ear, and should be attached to the otolith organs. However, they can become detached. This may happen after knocks to the head or following inner ear trauma and is also more common with ageing. If the crystals become dislodged and stay in the area around the otolith organs, called the vestibule, they won’t cause any problems. BPPV occurs when the otoconia move out of the vestibule and into the semicircular canals.

The otolith organs are responsible for detecting linear acceleration and deceleration, whereas the semicircular canals are responsible for detecting rotational acceleration. These are usually the movements of the head on top of the neck, such as looking left, right, up or down.

In the case of BPPV when a triggering movement is made, such as rolling over in bed, the otoconia shift in the semicircular canal and give a false sensation of movement which lasts for a few seconds until the crystals settle. The patient will then usually feel quite well until the next time they make a triggering movement.

Diagnosing BPPV

BPPV is diagnosed with a quick test that can be performed by specially trained audiologists as well as some GP’s and physiotherapists. The audiologist will try to recreate the sort of movement that triggers the attacks and will look for a particular type of eye movement that occurs during the dizziness. The direction of the eye movement will tell the audiologist exactly which of the six semicircular canals is affected by the otoconia.

It is likely that the diagnostic test will cause some brief dizziness, but if the audiologist can correctly diagnose the problem then they will be able to perform a treatment immediately.

Treating BPPV

Treatment for BPPV involves a manoeuvre to reposition the otoconia back into the vestibule where they won't cause any symptoms. This is most commonly achieved by making a series of head movements and looks a bit like slowly rolling in a circle in bed.

It is quite normal to experience some short attacks of dizziness during the manoeuvre, but rest assured that this is usually a good sign that the otoconia are moving. The manoeuvres usually consist of about four changes in head position spread over about three to five minutes.

In about 80% of cases the symptoms will completely resolve with only one treatment. The success rate of treatment jumps to about 98% with two treatments.

Although BPPV is relatively easy to treat it is a condition that can come and go across a lifetime. The otoconia are free-floating in the fluid of the inner ear just as they can be floated out during treatment they may float back in at some stage. Rest assured that it is just as easy to treat subsequent bouts of BPPV as it is with the first bout.

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