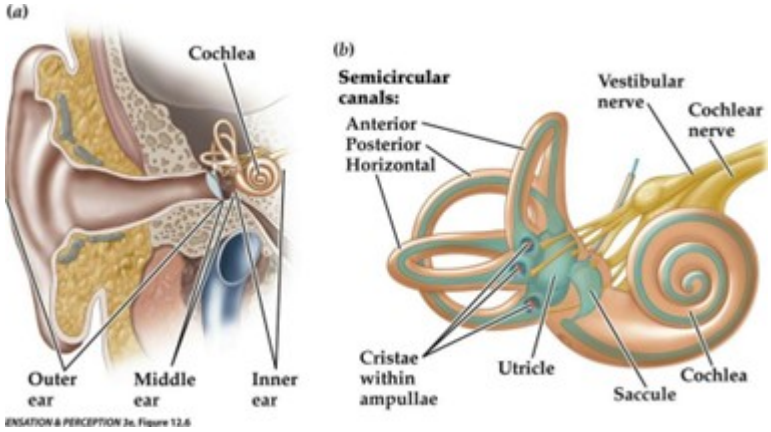
Benign Paroxysmal Positional Vertigo (BPPV)

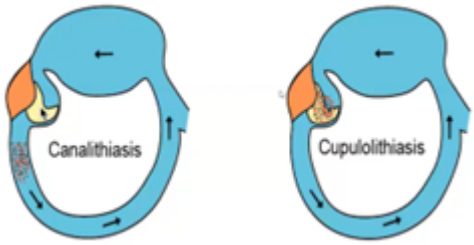
Dizziness is a very common, effecting around 15-20% of the adult population each year. Vertigo is a specific form of dizziness, where there is a sensation of the environment spinning or moving when it is not, and accounts for about 25% of all reports of dizziness. Vertigo can be caused by several conditions which effect the vestibular system, the most common of which is called BPPV (Benign, Paroxysmal, Positional, Vertigo). BPPV can affect people of all ages but is much more common in those over 50.



Sensory information about motion, equilibrium and spatial orientation is provided by the vestibular labyrinth, located in the inner ear. There are 2 main components of the vestibular system, the first of these are the 3 semicircular canals. Each canal is oriented in a different direction at right angles to each other and filled with a thick viscous fluid. When rotation of the head occurs, it causes movement of fluid in the canal corresponding to the direction of rotation. This fluid movement, stimulates the nerve filled cupula, firing off a signal to the brain to help determine which direction the head is rotating.

The second neighbouring component of the vestibular system are 2 structures called the otoliths. These are jelly like organs, covered in a layer of calcium carbonate crystals. BPPV occurs when calcium carbonate crystals from the otoliths, slough off and find their way into one of the semi circular canals. Once there they may either remain free floating or attach themselves to the cupula. When attached to the cupula, the weight of the crystals makes the cupula gravity sensitive, resulting in movements of the cupula which should not normally occur. When free floating, the crystals will roll around the semicircular canal with certain head movements, resulting in movement of the fluid within the canals which would not normally occur. In either case the inappropriate excitation of the neurons in the cupula, sends confusing information to the brain, resulting in vertigo.

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There are many forms and causes of vertigo, however the symptoms of BPPV are quite distinct. Vertigo will be provoked by head positional changes, looking up, laying down flat quickly, bending forward or commonly with rolling in bed. Unlike other forms of vertigo, symptoms are short lived and last for seconds or minutes not hours or days. BPPV is often considered a self-limiting condition as spontaneous remission can occur in up to 40% of cases, however the average time for remission is around 39 days! Importantly, when untreated, nearly half of BPPV sufferers will have chronic symptoms which can even last for years.

Treatment of BPPV first involves diagnosing which canal is affected and whether you are suffering from free floating or stuck crystals, based on a series of tests conducted by your physiotherapist. Once this has been determined there are specific techniques used to dislodge the crystals from the cupula and/or reposition them out of the canal and back into the appropriate area of the vestibular system. You may also be shown some simple home techniques that you will be given to undertake should symptoms continue.

Unfortunately, between 20-40% of those suffering an attack of BPPV will have a recurrence of the condition. Thankfully this is often many months or even years later.

https://vimeo.com/703560368

The most common form of BPPV is anterior canalothiasis and a well known technique called the Epply manoeuvre is very effective at treating anterior canal BPPV. It is important to know however that this will not work for other forms of BPPV and may in fact exacerbate symptoms. Importantly, each technique is specific to the type of BPPV, canal and side effected and will not work for other types of BPPV. Before embarking on self treatment, it is wise to get an accurate diagnosis and advice on the best course of treatment from an appropriately trained physiotherapist or specialist.

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