



Mersey Care
NHS Foundation Trust

Community and Mental Health Services

Benign Paroxysmal Positional Vertigo (BPPV)

What is BPPV?

BPPV is a condition affecting the inner ear. It causes short episodes of vertigo (spinning/dizziness) with certain head movements. BPPV is one of the most common causes of dizziness and the incidence rises with age.

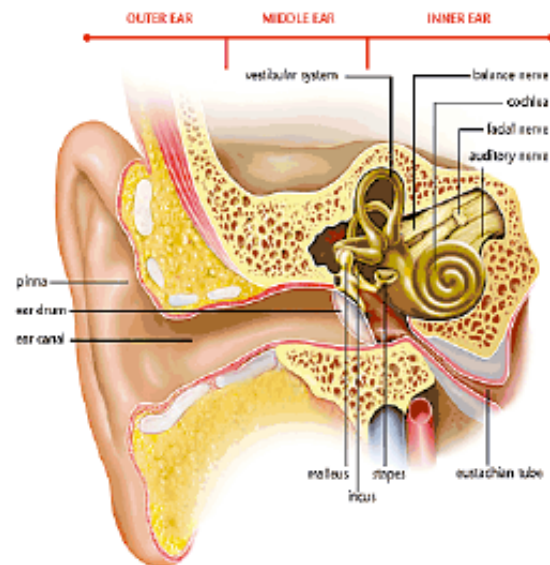
- **Benign.** The cause is not serious
- **Paroxysmal.** Recurring
- **Positional.** Symptoms are triggered by certain movements. In this case movement of the head
- **Vertigo.** A spinning sensation that is short lasting but can be severe enough to cause vomiting and sudden episodes of dizziness, spinning and/or vertigo

Anatomy

The inner ear is comprised of three semi circular canals and the cochlea. Each of the canals contains fluid within a labyrinth.

The semicircular canals sense movement of your head and help to control balance and posture.

The canals are positioned at right angles to each other, and therefore sense movement in different directions.



What are some of the symptoms of BPPV?

- Dizziness
- Nausea and/or vomiting
- Light headedness
- Imbalance
- Headaches
- Unsteadiness.

Symptoms are usually experienced with changes of head movement such as turning over in bed, looking up, moving from sitting to lying or lying to sitting and quick head movements. Symptoms are short lived and typically last less than one minute.

What causes BPPV?

The vestibule parts of the inner ear are lined with calcium carbonate crystals that can break free:

- with age
- a bang to the head
- prolonged bed rest
- following an ear infection
- after ear surgery
- with other health conditions.

The extra messages sent from the affected ear canal conflict with the normal messages sent from the unaffected ear, confusing the brain and causing vertigo or dizziness and a nystagmus (fast, uncontrollable movements of the eyes).

This usually lasts less than one minutes. When the crystals stop moving, the dizziness also stops but light-headedness and a loss of balance can last for several minutes or hours after the attack.

People with BPPV may have no symptoms between episodes and if it recurs it can clear up within a few days or weeks by itself. The posterior canal is the most commonly affected.

How do you test for BPPV?

The most common tests for BPPV are the Dix-Hallpike test, supine roll test or side lie test. They involve lying down with your head in different positions and your therapist looking for a response in your eye movements. From these tests we can identify BPPV and which inner ear canal is affected and then choose the correct treatment for it.

Your therapist can write here your affected side and canal:

| |
|---------------------|
| Your affected canal |
| Your treatment |

What are the treatments for BPPV?

In most cases, symptoms will clear without treatment in several weeks to months. The crystals, or debris, may dissolve or roll back to where they should be once they have become loose or they may always move around.

To avoid triggering BPPV, you should:

- Get of out bed slowly
- Avoid activities that involve looking upwards, such as painting and decorating or looking for something on a high shelf when the symptoms are active.

Medication is of limited use and will only settle severe nausea. It will not cure BPPV and may stop your balance system adapting and improving. It is important to keep moving your head to prevent your neck becoming stiff and painful. This will also help your balance system adapt and improve your dizziness.

BPPV is treated using a procedure called a canal repositioning manoeuvre. There are different manoeuvres depending on which

canal is affected. The Epley and Semonts manoeuvre are equally effective at treating BPPV (95 percent resolution) and your therapist will discuss this with you to see which you prefer to do.

If symptoms are persistent it is important to seek treatment as your risk of falls and fractures can increase with this condition particularly as you get older.

The Epley manoeuvre

The Epley manoeuvre is often very effective in resolving the symptoms of vertigo. It can cure most BPPV cases in the posterior canals. The Epley manoeuvre involves performing four separate head movements to move the crystal fragments to a place where they can't cause symptoms.

Each head position is held for 30 to 60 seconds. You may experience some vertigo during the movements or feel off balance for hours or days after the manoeuvre. Your therapist will advise you how to perform this at home if needed.

Pre-Epley manoeuvre instructions




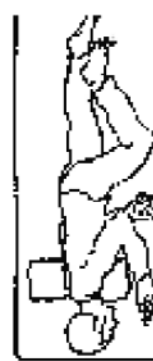





- This manoeuvre is for the treatment of BPPV in the posterior or rarely anterior canal
- It involves your therapist taking you through a series of positions in lying to resolve your symptoms
- During the manoeuvre you may feel dizzy. If this occurs, remain still and keep your eyes open
- You may also feel nauseous
- If you feel you may vomit, inform your therapist immediately
- This manoeuvre can be performed independently at home
- Information on how to do this is included in this leaflet
- Your therapist will inform you if this is necessary

Post-Epley manoeuvre instructions

- Do not drive yourself home if possible. If this is not possible, then wait at least 30 minutes before driving and do not drive if you feel dizzy
- You may feel a little imbalanced for up to 48 hours, don't worry this is your system recalibrating
- You can walk around and move your head to help.

Epley's manoeuvre for self treatment of benign positional vertigo (left)


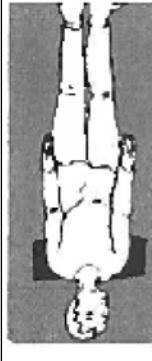
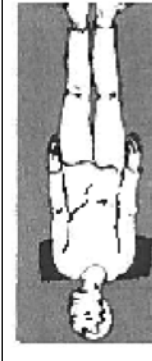




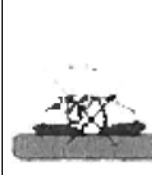
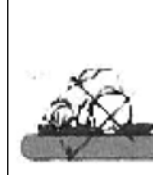
This manoeuvre should be carried out twice in a row. Repeat daily until you are free from positional vertigo for 24 hours.

| | | | | |
|---|--|--|---|---|
|  |  |  |  |  |
|  |  |  |  | |
| Start sitting on a bed and turn head 45 degrees to the left. Place a pillow behind you so that on lying back it will be under your shoulders. | Lie back quickly with shoulders on pillow and head reclined onto bed. Wait for 30 seconds. | Turn your head 90 degrees to the right (without raising it) and wait again for 30 seconds. | Turn your body and head another 90 degrees to the right and wait for another 30 seconds | Sit up on the right side |

Reproduced from www.charite.de/ch/neuro/englishL.htm

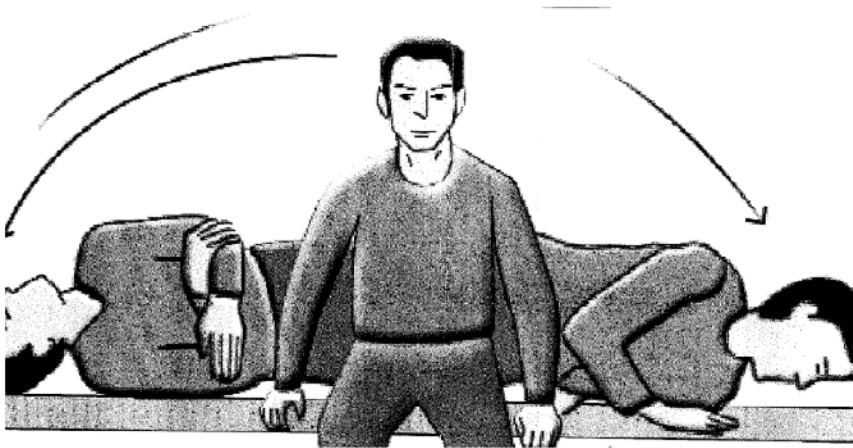
Epley's manoeuvre for self treatment of benign positional vertigo (right)

This manoeuvre should be carried out twice in a row. Repeat daily until you are free from positional vertigo for 24 hours.

| | | | | |
|--|--|---|--|---|
|  |  |  |  |  |
|  |  |  |  | |
| Start sitting on a bed and turn head 45 degrees to the right. Place a pillow behind you so that on lying back it will be under your shoulders. | Lie back quickly with shoulders on pillow and head reclined onto bed. Wait for 30 seconds. | Turn your head 90 degrees to the left (without raising it) and wait again for 30 seconds. | Turn your body and head another 90 degrees to the left and wait for another 30 seconds | Sit up on the left side |

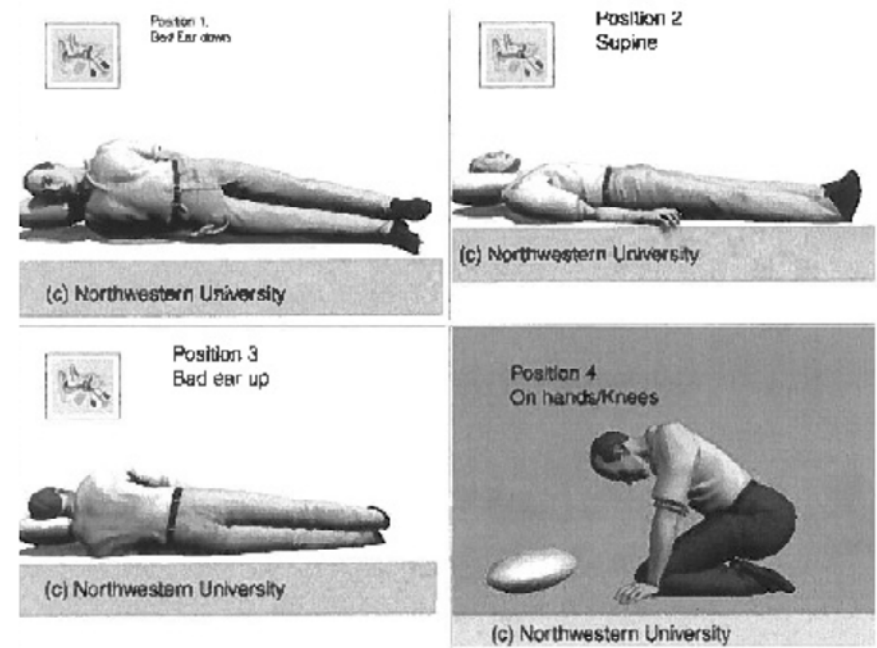
Reproduced from www.charite.de/ch/neuro/englishL.htm

Semonts manoeuvre



- Turn your head to look in the opposite direction to the affected ear canal.
- Lie down towards the side of the affected canal. Look to the ceiling, stay still here for 30 seconds to one minute.
- Keep looking the same way, sit up and go over to lie on the opposite side, looking at the bed or floor, stay here for 30 seconds to 1 minute.
- Sit up.

Treatment of lateral canal BPPV



Log roll exercises for lateral canal BPPV

The log roll exercises are a procedure where an individual is rolled in steps of 90 degrees:

- Starting on your side affected ear down, wait 30 seconds
- Roll onto your back, wait 30 seconds
- Roll so you are nose-down, wait 30 seconds
- Move to sitting at intervals of 30 seconds or one minute
- Repeat this for a week. If the symptoms persist, try doing it the other way round, that means starting with your affected side ear up.

Recurrence of BPPV

In a small number of people BPPV will return within five years. If this happens to you and the dizziness feels the same as previous episodes, you can:

- Wait a week, moving around as normally as possible and symptoms may settle.

OR

- Perform a home Epley if your therapist has shown you how to do this.

OR

- Proceed through Brandt-Daroff exercise regime independently although this is not the most effective treatment.

It may also be necessary to retrain your balance system with specific balance exercises following treatment. This helps your body recalibrate after debris moves out of the semicircular canal(s).

Your physiotherapist will teach you the correct exercises for you.

Should symptoms persist your safety may deteriorate and your falls and fracture risk may increase if the symptoms persist. Please visit your GP to discuss a referral for a canal repositioning manoeuvre.

Advice and support

www.nhs.uk/Conditions/Vertigo

www.dizziness-and-balance.com

Other useful telephone numbers and contacts

- NHS 111

Special instructions

Any condition specific danger signals to look out for?

Should symptoms persist contact your GP.

Contact information if you are worried about your condition

Your GP

.....

Your therapist

.....

Our patients matter

Mersey Care NHS Foundation Trust listens and responds to patients and their carers to help improve the services we deliver.

If you have any comments, compliments or concerns you can speak with a member of staff or contact our **Patient Advice and Liaison Service (PALS) and Complaints Team**

Telephone: **0151 471 2377**

Freephone: **0800 328 2941**

Email: **palsandcomplaints@merseycare.nhs.uk**

To request this leaflet in an alternative format or language, please speak to a member of staff.

Mersey Care NHS Foundation Trust

V7 Building, Kings Business Park, Prescot L34 1PJ

May 2021