

# National Hospital for Neurology and Neurosurgery

Benign paroxysmal positional  
vertigo (BPPV)

Department of Neuro-otology

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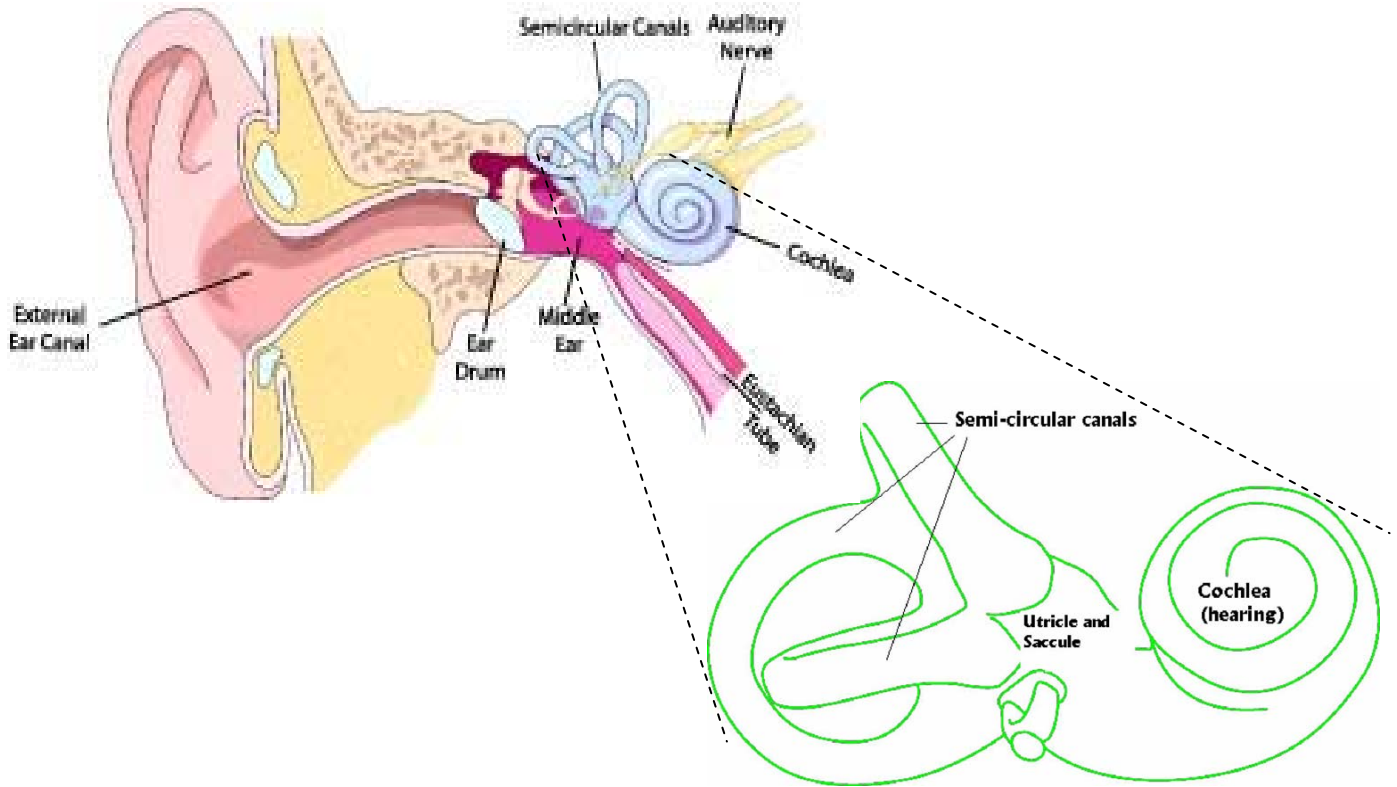
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Your doctor in the department of Neuro-otology at the National Hospital for Neurology and Neurosurgery has diagnosed you as having benign paroxysmal positional vertigo – “BPPV”. This booklet has been written to provide you with some more information about BPPV.

### **What is BPPV?**

BPPV is an inner ear balance disorder. It is due to loose chalk crystals collecting in the semicircular canal at the back of the inner ear. The balance organ of each inner ear has three semicircular canals, a utricle and a saccule, all connected by inner ear fluid. The utricle and saccule have sense receptors loaded with tiny crystals which help detect small movements of your head. If some of these crystals become loose, they will float free in the fluid of the balance organ. When this happens, moving your head in particular positions, such as lying back in bed, will cause crystals to move in the fluid of the semicircular canal and irritate the balance organ. This causes the symptoms of BPPV.



## What causes BPPV?

Problems which cause these crystals to loosen include:

- both mild and serious head injuries
- inner ear infection known as vestibular neuritis
- other disorders of the inner ear for example Mènière's disease

However, in many cases no specific cause will be found. BPPV is very common especially as you get older and 30% of the population will have experienced BPPV by the time they reach 70 years of age.

## What are the symptoms of BPPV?

The typical symptom of BPPV is short-lasting vertigo (dizziness), often described as a spinning or falling sensation. This can be triggered by:

- rolling over in bed
- lying back in bed
- sitting up from a lying position

The vertigo may also be triggered by looking up (for example looking up at the top shelf of a bookcase) or bending your head forwards (for example bending over to pick up something from the ground). You may feel a bit sick or you may lose your balance when you experience the vertigo.

The vertigo usually lasts less than a minute and does not occur unless you move your head in particular ways. You may have several attacks of these symptoms per day and the attacks usually come in clusters of a few days or weeks. In between the attacks, or shortly after successful treatment of BPPV, you may be entirely free of symptoms.

Most of the time BPPV symptoms will subside within a few weeks without any treatment. However, in up to a third of cases the symptoms may persist for months or longer. An

intermittent pattern is common, with symptoms recurring after a time free of symptoms. Some patients also experience a sensation of imbalance in between the dizzy attacks which is often described as ‘walking on clouds’.

### **How is BPPV diagnosed?**

Your doctor will have made the diagnosis of BPPV on the basis of:

- your symptoms
- the findings on your clinical examination during specific “positional tests”

The most important tests for BPPV are the positional tests; one of these is called the Dix-Hallpike test. This test involves the doctor lying you down quickly from a sitting position, with your head turned to one side. The quick movement causes any loose crystals in the balance organ to trigger your dizziness. The doctor will see a characteristic eye movement called ‘nystagmus’. The direction and duration of this eye movement helps the doctor decide which ear and which semicircular canal is affected.

Another positional test involves lying flat and turning your head to the left and right. This is known as the roll

manoeuvre. You may also have your hearing tested and have other tests of balance function. Any problems detected on these tests will be treated separately to your BPPV.

### **How is BPPV treated?**

The Epley repositioning manoeuvre is used to treat BPPV. Your doctor will ask you to sit on the couch with your head turned to the side that brings on your symptoms. The doctor will then lie you down quickly with your head taken back over the end of the couch and supported by their hands. The doctor will then guide you through a sequence of three more movements over the next few minutes. These movements are designed to move the crystals out of the semicircular canal and in to the utricle where they do not cause the symptoms of BPPV.

### **How successful are these manoeuvres and what should I do afterwards?**

These manoeuvres work on the first attempt in 70% of cases. The manoeuvre may have to be repeated a second, and in a few cases, a third time to be completely free of symptoms. Over 90 percent of patients are treated after two manoeuvres. Your doctor may ask you to return to the clinic

a few weeks after your first manoeuvre to repeat the Dix-Hallpike test and check that you are free of symptoms. The Epley manoeuvre will be repeated if the test is positive again. If your symptoms still persist (which is very rare) your doctor may try a different manoeuvre.

After a successful repositioning manoeuvre you may experience “otolithic vertigo”. This is a sensation of imbalance, as if walking on pillows. Otolithic vertigo usually goes away without treatment in a few days – if it does not resolve spontaneously it can be treated by other exercises. Your doctor will discuss this with you and refer you to a physiotherapist for advice if necessary.

**It is very important after the doctor has performed the manoeuvre that you:**

- Avoid driving for at least one hour after the manoeuvre
- Avoid sleeping on the side that brings your symptoms on for 48 hours
- Avoid vigorous head movements and bending or extending your neck for 48 hours (such as at the backwash at the hairdresser)



## **Are there any side effects and complications of these manoeuvres?**

You may experience vertigo and nausea (feeling sick) during the manoeuvre but this should settle afterwards. If you do feel sick afterwards, your doctor may give you a sickness tablet for relief. You may feel slightly off balance and have a sick sensation which should resolve over the next three or four days at the most. Sometimes BPPV may resolve in one canal but may affect a different canal, in which case another repositioning manoeuvre will have to be performed. Some patients report feeling off balance due to otolithic vertigo which may need to be treated. Successful treatment of BPPV may uncover an underlying balance problem which will need to be treated with physiotherapy exercises. Your doctor will discuss any further problems and symptoms at your follow up appointment and will refer you on to physiotherapy if needed.

## **Where can I get further information?**

Action on Hearing Loss (formerly Royal National Institute for the Deaf (RNID))

Telephone 0808 808 0123    Textphone 0808 808 9000

SMS 0780 0000 360

<http://www.actiononhearingloss.org.uk/supporting-you/factsheets-and-leaflets/ears-and-ear-problems.aspx>

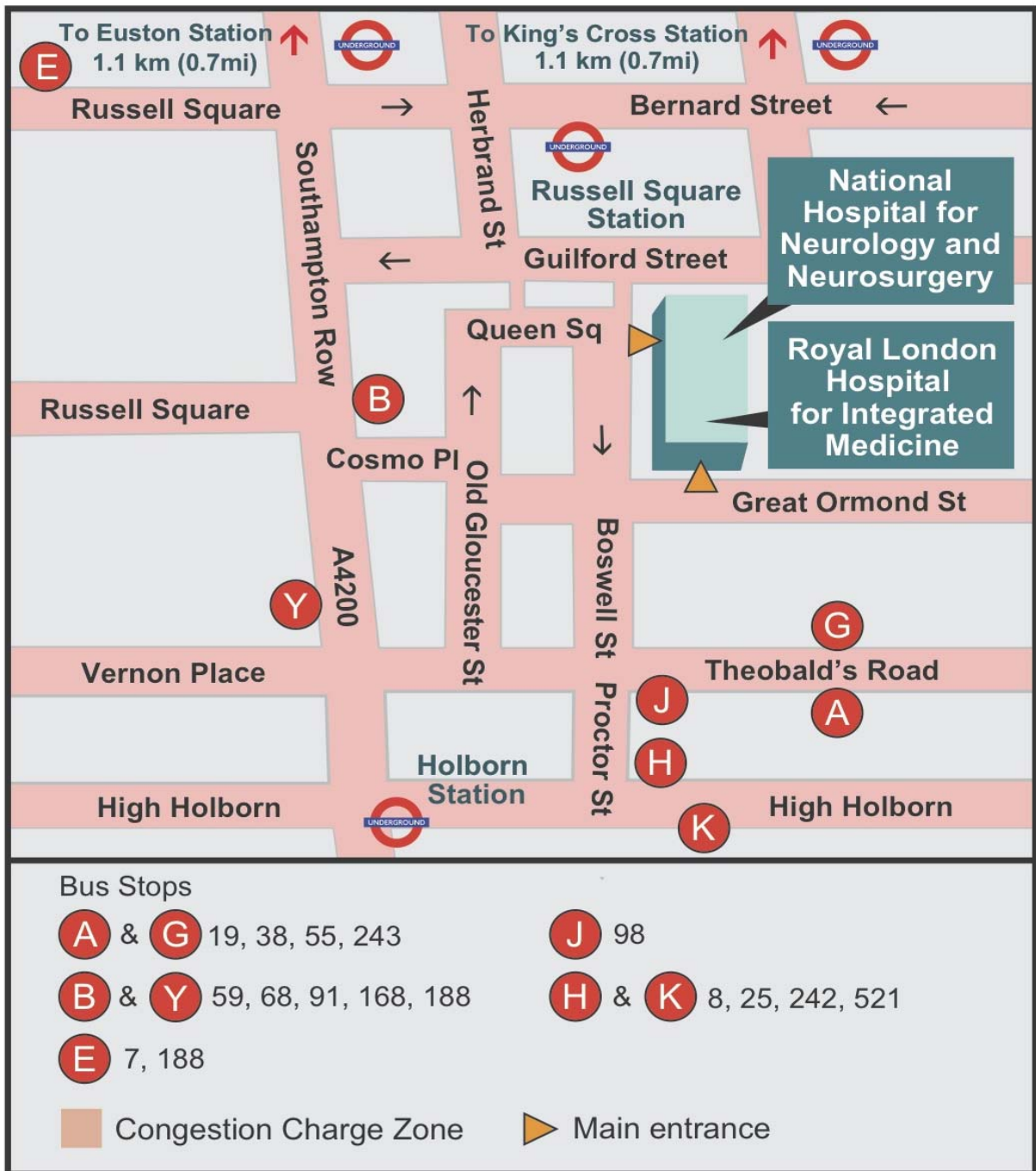
Brain and Spine Foundation: Dizziness and balance problems information page:

[http://www.brainandspine.org.uk/information/publications/brain\\_and\\_spine\\_booklets/dizziness\\_and\\_balance\\_problems/index.html](http://www.brainandspine.org.uk/information/publications/brain_and_spine_booklets/dizziness_and_balance_problems/index.html)

Mènière's Society: Vertigo and Dizziness by Lucy Yardley. Available as a free download. [http://www.menieres.org.uk/vertigo\\_and\\_dizziness\\_book\\_download.html](http://www.menieres.org.uk/vertigo_and_dizziness_book_download.html)

UCL Hospitals cannot accept responsibility for information provided by external organisations.

## Where to find us



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