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Dizziness and Vertigo

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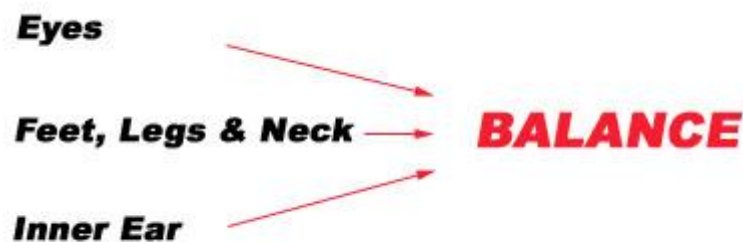
Disclaimer: The details in this section are for general information only. Always check with your own doctor.

There are a multitude of causes of dizziness which may have nothing to do with the balance organ in the inner ear. Fainting attacks, heart problems, thyroid problems and brain problems can all give rise to feelings of light-headedness, giddiness and general imbalance.

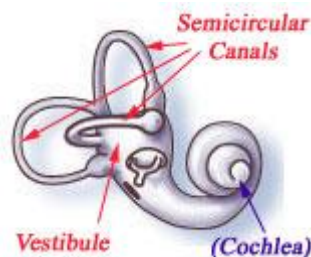
One form of dizziness is vertigo which is the specific complaint of either the environment moving in relation to the patient or the patient moving in relation to the environment. It is usually a spinning or rotatory sensation. Vertigo is specifically linked to problems with the inner ear. Of the people who suffer from vertigo due to inner ear problems, 99% will recover with time and without any treatment.

Normal Balance

Balance and the ability to remain upright is dependent upon three systems:



All three of these systems give information to the brain about the position of the body in space. Generally people can keep their balance if two of the three systems are working, but they cannot cope with only one system working. This is why most people tend to become more unsteady as they get older, because they may have arthritis in their legs and their neck or poor eyesight.



The **balance organ (or labyrinth)** is made up of three semicircular canals and the vestibule, which are all filled with liquid. The semicircular canals sense rotational movement and the vestibule senses acceleration and deceleration.

Inner ear disease and vertigo

Many different factors can affect the inner ear and cause vertigo. One way to distinguish them is by the duration of the dizziness.

Short-lived episodes of dizziness (few seconds to minutes)

An extremely common type of vertigo is benign positional vertigo. This is typically a very sudden onset of dizziness, which settles rapidly after a few seconds or at most a couple of minutes.

It is often started off by the person suddenly looking upwards or sideways, and some people get it when they turn over in bed. In between attacks, the sufferer feels entirely normal. It is probably caused by a little piece of lining coming loose in the inner ear and floating into the balance receptor, causing a sudden increase in nerve stimulus to the brain.

Sometimes the attacks start following a whiplash injury or other head injury, but often there appears to be no reason that they should have started. The attacks usually disappear with time.

Medicines do not help, but a manoeuvre known as Epley's Manoeuvre can be extremely effective in some patients. This can be carried out either by the ear nose and throat surgeon or physiotherapy department, depending on the hospital.

Medium length episodes of dizziness (half-hour to several hours)

These types of vertigo are rarer and are thought to be due to an increase in pressure of the fluid in the inner ear, although nobody really knows for sure.

Menière's disease or endolymphatic hydrops result in episodes of severe vertigo that can last up to several hours. The dizzy episodes are usually linked with vomiting, and the sufferer can often tell an episode is about to start because he or she notices a drop in their hearing, a feeling of fullness in the ear and some tinnitus. The hearing recovers once the vertigo has settled, but may gradually deteriorate with time.

Treatment of Menière's disease can involve medicines and, more rarely, surgery, but this will be organised by your local ear nose and throat department once the diagnosis of Menière's disease has been made.

Longer episodes of dizziness: (days to weeks)

An infection of the inner ear (labyrinthitis) or an inflammation of the balance nerve (vestibular neuronitis) can give rise to severe rotatory dizziness for up to two to three weeks, with a slow return to normal balance which can take a further few weeks.

Again, the initial episode is often associated with vomiting and the patient can be bed-bound because the dizziness is so severe. This is best treated at first with a vestibular sedative such as Stemetil, but any treatment should be stopped quite quickly to allow the brain to

compensate and recover from the dizziness. Recovery is much quicker in the long run if treatment with anti-dizziness medicines is not prolonged.

Investigations

The majority of patients who experience episodes of vertigo will recover without any long-term ill effects and usually within a few weeks or month of the onset of the symptoms.

In the majority, specialist investigations do not help with the diagnosis but they can be helpful in certain circumstances. If they are thought necessary, investigations of vertigo will generally be carried out in a hospital by a neurologist, general physician or ear nose and throat surgeon or a audiological physician. Types of test that may be requested include: audiological (hearing) tests, tests of balance, blood tests (rarely), and radiological examinations such as an MRI scan or CT scan.

Treatment

In general the treatment of vertigo is symptomatic, ie treatment is given to control the symptoms without regard to the specific cause of the vertigo. The body is very good at overcoming the imbalance experienced during inner ear disease, and so symptomatic treatment should be short because it can delay this natural compensation.

Rehabilitation (including Cawthorne Cooksey Exercises)

There are specifically targeted exercises to speed up the brain's natural compensation after inner ear disease. Recovery can be hastened by these exercises which can be organised by your local ear nose and throat or physiotherapy department.

Vestibular sedatives

The inner ear may be 'suppressed' (or made sleepy) by the use of drugs such as Stemetil or Stugeron. These drugs reduce the overactivity of the balance organ and so reduce the dizziness and vomiting that can occur in inner ear problems.

However, they are not a long-term solution and should be used for as short a time as possible because they prolong the time taken for the body to readjust after the vertigo.

Menière's disease

This is a longer term disease and there are two aims of treatment. One is to treat the acute episodes of dizziness with vestibular sedatives (see above), and the other is to try to reduce the frequency of the dizzy episodes.

Frequently advice will be given to restrict intake of salt, caffeine and alcohol, which can help some patients with Menière's disease. Increasing the bloodflow of the inner ear may help and so drugs like Betahistine (Serc) are often prescribed.

Some people with Menière's disease may benefit from surgery if the episodes of vertigo are frequent and disabling and not responding to medical treatment.

When surgery is needed

Surgery may be advised if medical treatment proves ineffective and the episodes of vertigo are disabling. The options range from those such as the simple insertion of a grommet through to operations which completely destroy the inner ear, or divide the nerves leading from the inner ear to the brain.

Unfortunately, many (although not all) effective surgical operations also destroy the hearing of that ear and so the vertigo is usually severe before a patient opts to undergo such treatment.

Because there are so many different causes of vertigo, there are several different operations and so it would take too much space to detail them all here, but your ear nose and throat consultant will go through them with you.

New treatments

There are always new treatments being developed and there is very encouraging progress being made using drugs delivered directly into the ear which selectively destroy the inner ear balance mechanisms without affecting hearing.

Further work is still to be undertaken in this area and will no doubt result in improved techniques for the control of vertigo in patients who are long-term sufferers. Anyone suffering from persistent recurrence of vertigo should consult their doctor in order to find the cause and to arrange effective treatment.