

Balance and bilateral vestibular dysfunction



What is bilateral vestibular dysfunction?

In a healthy balance system the brain uses the information from both ears as well as information from the eyes, muscles, joints and skin to keep the body upright and maintain a sense of balance.

For people suffering bilateral vestibular dysfunction, the inner ear balance function in both ears is affected, causing a sense of imbalance or unsteadiness when moving.

What does bilateral vestibular dysfunction feel like?

The main symptom of bilateral vestibular dysfunction is a sense of imbalance or unsteadiness with or during movement. Some people feel they veer or sway when they walk. This may be especially noticeable in the dark, on uneven surfaces, in busy environments or with quick movements.

Some people may experience blurred vision when they move their head. This is called oscillopsia and may cause difficulty when performing tasks such as recognising someone's face or reading a sign while walking. Dizziness or vertigo may not be a noticeable symptom, except in the early stages.

People with bilateral vestibular dysfunction are at high risk of falls especially in poorly lit areas or on slippery or uneven surfaces (for example in the shower, on sand, gravel, or steps or on uneven footpaths).

What causes bilateral vestibular dysfunction?

There are many different causes for this relatively uncommon diagnosis. Investigations such as an MRI, blood tests and vestibular function tests may be undertaken in an attempt to find a cause.

Occasionally bilateral vestibular dysfunction is caused by the side effects of intravenous antibiotics or chemotherapy. Other causes include autoimmune disease, viral infections in both inner ears or cerebellar (the coordination centre in the brain) disorders.

Even with investigation, in about 50% of cases the cause of the bilateral dysfunction may remain unknown.



How is the diagnosis made?

If you are referred to a specialist by your GP, your condition may be diagnosed based on your medical history, answers to questions about the initial onset of the symptoms and your current symptoms including a history of falls. You will also have an examination of your eye and head movements, balance control and walking ability. Vestibular and hearing function tests, MRI and blood tests may also be undertaken.

How is bilateral vestibular dysfunction treated?

A specialist vestibular physiotherapist uses a customised vestibular rehabilitation program to maximise the remaining function of the balance system. This will include home exercises to improve gaze stability, balance and steadiness when walking, as well as a walking (gait) aid prescription if required. An Occupational Therapist can also assist with functional strategies especially in the home or work situation. Your GP can assist in connecting you with an Occupational Therapist.

Living with bilateral vestibular dysfunction

As we age, maintenance of balance and reducing the risk of falls continues to be important. For people with bilateral vestibular dysfunction this may involve ongoing balance exercises in addition to maintaining good general health.

It is important to recognise that other parts of the body contribute to balance (such as eyes, joint and skin sensation and general strength) and these are also important to be maintained. This will mean regular eye checks and foot health checks, especially as you get older. In addition, it is vital to use appropriate footwear or gait aid and set up the home to minimise the risk of falls. An Occupational Therapist can assist with strategies for falls prevention around the home which may include use of good lighting and non-slip rugs.

Online support

The Vestibular Disorders Association is a US based, patient support group. Their website contains useful information about how to understand, live with and find support for balance disorders. Visit www.vestibular.org for more information.

More information:

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