



# **About**

Ménière's disease (MD) is a disease of the inner ear. The inner ear is composed of the organ of hearing (the cochlea) and the organ of balance (semi-circular canals). Ménière's disease is a long-term, progressive disease which damages both the balance and hearing parts of the inner ear. The main symptoms of the disease are vertigo, tinnitus and hearing loss.

Its incidence is between 1 per 2,000 and 1 per 20,000 of the population. It affects both sexes equally. It can occur at all ages, and most frequently starts between the ages of 20 and 50 years. About 7-10% of people with MD have a family history of the disease.

Initially, the disease usually affects one ear, but both ears are affected in 15% of people at the onset of the symptoms. As the disease progresses, up to 50% of people will develop the disease in both ears.



## **Causes**

Many factors are probably involved in the development of the disease. The relationship between these factors and the progression of the disease remain unclear. The factors that may be involved are:

- Increased pressure of the fluid in the endolymphatic sac in the inner ear
- A familial predisposition to develop the disease
- Allergic factors damaging the inner ear
- Some specific viral infections
- Vascular factors. There is an association between migraine and Ménière's disease
- Metabolic disturbances involving the balance of sodium (Na+) and potassium (K+) in the fluid of the inner ear
- Unknown factors

# Making a Diagnosis

During severe attacks of vertigo, many people also suffer from diarrhoea, palpitations and sweating.

MD can severely affect the quality of life of a person. It can affect the ability to work and travel. Families and relationships may suffer. Periods of depression and anxiety are common.

#### Necessary Investigations to Make a Diagnosis

There is no specific test that, on its own, is reliable in diagnosing MD. Your general practitioner and Ear Nose and Throat specialist will arrange appropriate investigations.

The history and progression of the illness together with simple hearing (audiogram) and balance tests (caloric test) will be sufficient in many cases. However, the three main symptoms of vertigo, hearing loss and tinnitus occur in many other illnesses, and these may need to be excluded by tests (blood tests and MRI scan) before a final diagnosis can be made.

Other investigations may help with the management and assessment of symptoms (postulography, electronystagmography, speech audiogram).



# Stages of Ménière's

#### Stage 1: Early

The main feature is intermittent attacks of vertigo (giddiness) associated with nausea and vomiting. These attacks can last from a few minutes to 24 hours. During the attack, there is a variable amount of hearing loss, and a sensation of fullness and discomfort in the affected ear.

There may be tinnitus (noises in the ear) or an increase in existing tinnitus in the ear. The fullness in the ear and the tinnitus may precede the attacks of vertigo, but often the attacks occur without warning. There can be giddiness lasting a few minutes to severe rotational vertigo with vomiting. The person may need to lie completely still for several hours. Between attacks, the hearing and sensation in the ear return to normal. The attacks vary in severity and length. There are periods of remission between the attacks, and these can vary from days to months or even years. The periods of remission vary in each person and over time, making MD an unpredictable and distressing illness.



#### Stage 2: Intermediate

The attacks of vertigo continue, with variable remissions. They may be less severe. The attacks may be preceded or be followed by a period of imbalance and movement-induced giddiness, adding to the distress. Permanent hearing loss develops and continues to fluctuate with the vertigo attacks. Tinnitus becomes more prominent; it also fluctuates, increasing with the attacks.

### Stage 3: Late

In the later stages, the hearing loss increases and often the attacks of vertigo diminish or stop. The disease affects both ears in up to 50% of people. Hearing loss can be severe and distortion, loudness discomfort and recruitment can be a problem. There is permanent damage to the balance organ in the ear and significant general balance problems are common, especially in the dark.



# **Treatments**

Treatment is aimed at reducing, controlling and alleviating the symptoms. It is symptomatic treatment and will vary with the needs of each patient at that time.

### • Treatments aimed at controlling the attacks of vertigo

Drugs such as betahistine (Serc) and a low dose of a diuretic on a regular basis can reduce the frequency of attacks of vertigo. Vestibular sedatives (cinnarizine-Stugeron) and anti-sickness drugs (prochlorperazine-Stemetil) help to control the vertigo and vomiting during the attacks.

#### • Specific exercises

Vestibular rehabilitation exercises can be helpful between the attacks of vertigo to help compensate for difficulties with balance. The exercises can be especially useful in later stages of the disease. These specific exercise programmes need to be done only under the supervision of a physiotherapist or hearing therapist.

#### • Low salt diet

This can reduce the frequency and severity of attacks of vertigo in some people.

#### • Treatment to help tinnitus

Various white noise generators, which help mask the tinnitus, as well as retraining and counselling, are available.

#### • Treatment to help hearing loss

Hearing aids are important for all people with hearing loss, whether it is in one ear (unilateral) or both ears (bilateral). There are specific hearing problems for people with MD but most can be helped by the range of aids available.

#### Adaptation of lifestyle

Reducing stress and regular relaxation helps with coping with the anxiety MD can produce. Some complementary therapies are beneficial.

#### Counselling

MD affects all aspects of a person's life. Change of employment, financial problems, as well as personal and relationship difficulties can occur. Counselling can help with these and improve the quality of life.

In four out of five people these measures are sufficient to control the symptoms.



# Vertigo Treatments

If vertigo remains a problem there are several further procedures that can help to control vertigo. These are:

#### • Gentamicin treatment

Controlled use of gentamicin given locally to the ear can reduce and control the vertigo.

#### • Saccus decompression

This is a surgical operation on the endolymphatic sac of the inner ear. There are several variations. They aim to reduce the pressure of the fluid in the sac.

#### Vestibular nerve section

This is a neurosurgical operation. The nerve from the balance organ in the inner ear is cut, stopping the abnormal messages reaching the brain and therefore stopping the vertigo.

#### Labyrinthectomy

This operation destroys the inner ear and stops any vertigo arising from that ear. However, it also destroys the hearing in that ear.



# **Support**

Most people with Ménière's disease cope well with their symptoms and the problems it produces. Understanding the disease and discussing treatment options with your doctor is valuable. Counselling, relaxation and stress management play an important part in maintaining a good quality of life. Contact with other people with MD via the Ménière's Support Group can improve confidence and provide valuable support and information.

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