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This patient information handout is provided for general medical knowledge only. It may or may not relate to your specific medical condition and it does not constitute individualized medical advice.

Ménière's Disease

Ménière's disease (also called *idiopathic endolymphatic hydrops*) is one of the most common causes of dizziness originating in the inner ear. In most cases only one ear is involved, but both ears may be affected in about 15 percent of patients.

Ménière's disease typically affects people between the ages of 20- and 50-years-old and can impact anyone. Occasional symptoms include vertigo (attacks of a spinning sensation), hearing loss, tinnitus (a roaring, buzzing, or ringing sound in the ear), and a sensation of fullness in the affected ear. These episodes typically last from 20 minutes up to four hours.

Hearing loss is often intermittent, occurring mainly at the time of the attacks of vertigo. Loud sounds may seem distorted and cause discomfort. Usually, the hearing loss involves mainly the lower frequencies, but over time this often affects higher tones as well. While hearing loss initially fluctuates, it often becomes more permanent as the disease progresses.

What Are the Symptoms of Ménière's Disease?

Ménière's disease symptoms may include:

- Dizziness or vertigo (attacks of a spinning sensation)
- Hearing loss
- Tinnitus (a roaring, buzzing, or ringing sound in the ear)
- Sensation of fullness in the affected ear
- Symptoms tend to come and go together

What Causes Ménière's Disease?

Although the cause is unknown, Ménière's disease symptoms are due to increased volume of fluid in the inner ear. Too much fluid may accumulate either due to excess production or inadequate absorption. In some individuals, especially those with involvement of both ears, allergies or autoimmune disorders may play a role in producing Ménière's disease. In some cases, other conditions may cause symptoms similar to those of Ménière's disease.

People with Ménière's disease have a "sick" inner ear and are more sensitive to factors such as fatigue and stress that may influence the frequency of attacks.

To find out how to help and what is causing this condition, your physician will take a history of the frequency, duration, severity, and character of your attacks, the duration of hearing loss, or whether it has been changing, and whether you have had tinnitus or fullness in either or both ears. When the history has been completed, diagnostic tests to assess your hearing and balance may be performed. They may include:

Hearing tests—An audiometric examination (hearing test) typically shows a sensory type of hearing loss in the affected ear. Speech discrimination (the patient's ability to tell one word from another) is tested as well.

Balance tests—An electronystagmogram (ENG) test may be performed to measure balance by following eye movement when warm and cool water, or air, are inserted into the ear. Often this shows that the balance function is reduced in the affected ear. Rotational or balance platform testing may also be used to evaluate balance.

Other tests—Electrocochleography (ECoG) looks for inner ear fluid pressure in some cases of Ménière's disease. Other hearing and imaging may help to rule out other causes as well.

What Are the Treatment Options?

Although there is no cure for Ménière's disease, the attacks of vertigo can be controlled in nearly all cases. Treatment options include:

- A low salt diet and a diuretic (water pill)
- Anti-vertigo medications
- Intratympanic injection with either dexamethasone or gentamicin
- An air pressure pulse generator
- Surgery

Your ENT (ear, nose, and throat) specialist, or otolaryngologist, will help you choose the treatment that is best for you, as each has advantages and drawbacks. In many people, careful control of salt in the diet and the use of medication to help release extra fluid can control symptoms well.

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Treatments aim to save the inner ear parts that work and clear out parts that are permanently injured.

Intratympanic injections inject medication through the eardrum into the middle ear space where the ear bones reside. This treatment is done in your ENT specialist's office one or more times. One type of medication, Gentamicin, eases dizziness but may increase hearing loss and worsen overall balance. Corticosteroids do not cause hearing loss but are less helpful for dizzy spells.

An air pressure pulse generator is another option. Used five minutes three times a day following the placement of a tube through the eardrum close to the middle ear, air is pulsed that adjusts the internal pressure. The success rate of this device has been variable.

Surgery

Surgery is needed in only a small minority of patients with Ménière's disease. If vertigo attacks are not controlled by conservative measures and are disabling, one of the following surgical procedures might be recommended:

- Endolymphatic sac shunt or decompression procedure relieves attacks of vertigo in nearly 80 percent of cases and the sensation of ear fullness is often improved. Control is often temporary but can last up to 10 years. Endolymphatic sac surgery does not improve hearing, but only has a small risk of worsening it. Recovery time after this procedure is short compared to the other procedures.
- Vestibular neurectomy or nerve section is a procedure in which the balance nerve is cut as it leaves the inner ear and goes to the brain. While vertigo attacks are permanently cured, in a high percentage of cases, patients may continue to experience imbalance and often patients remain impaired. Similar to endolymphatic sac procedures, hearing function is usually preserved.
- Labryrinthectomy and eighth nerve section are procedures in which the balance and hearing mechanism in the inner ear are destroyed on one side. This is considered when the patient with Ménière's disease has poor hearing in the affected ear. Labryrinthectomy and eighth nerve section result in the highest rates for control of vertigo attacks.

What Should I Do If I Have an Attack of Ménière's Disease?

Lie flat and still, and focus on an unmoving object. You might even fall asleep while lying down and feel better when you wake up.

Take vestibular suppressants including meclizine, which calm the inner ear.

To help prevent an attack, avoid stress and excess salt ingestion, caffeine, smoking, and alcohol. Get regular sleep and eat properly. Remain physically active, but avoid excessive fatigue. Consult your ENT specialist about other treatment options.