



MÉNIÈRE'S DISEASE

This handout is intended as a general introduction to the topic. As each person is affected differently, speak with your health care professional for individual advice.



Key points

- An inner-ear disorder that can lead to vertigo (spinning sensation) and hearing loss.
- Most attacks last for several hours.
- Only one ear is affected in most cases.
- Chronic (long-lasting) condition.
- Most common in 30- to 60-year-olds.
- Other common symptoms in the affected ear include hearing loss, tinnitus (ringing in the ear) and a feeling of pressure.
- Symptoms during attacks vary from person to person.
- Attacks vary from mild to severe.
- Symptoms and the long-term impact on daily life can be managed through lifestyle changes, medication, and vestibular rehabilitation (an exercise-based therapy).

What is Ménière's disease?

Ménière's (men-YAIRS) is a disorder of the inner ear. People with Ménière's disease have episodes (attacks) of vertigo, tinnitus and sensorineural hearing loss. Sensorineural hearing loss is the most common type of hearing loss; it is caused by a problem with the inner ear or the nerves that connect the inner ear to the brain.

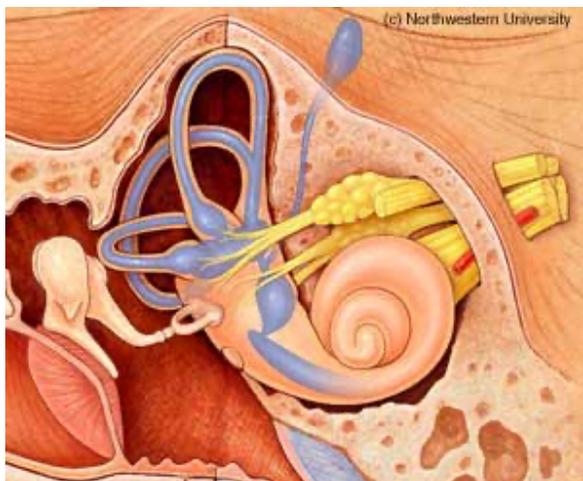
Ménière's disease is named after Dr. Prosper Ménière, a French physician. In 1861, Ménière discovered that the ear was the source of vertigo spells.

Different people have different symptoms. Also, the same person may sometimes have mild attacks and sometimes have attacks that are severe and disabling, making them unable to walk during the vertigo spell.

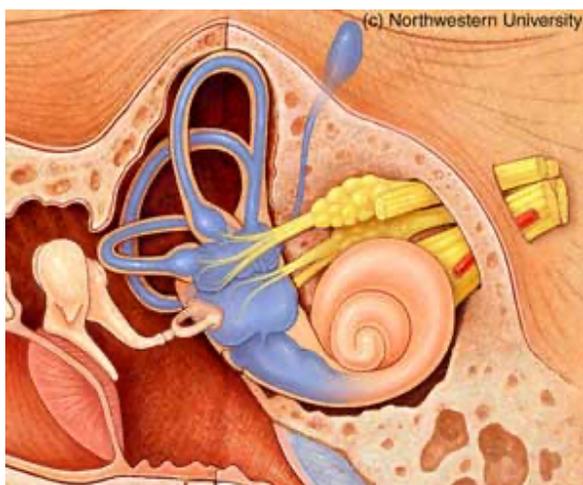
Ménière's disease is chronic and progressive, meaning that it does not go away and it tends to get worse over time. In the later stages of the disease, the vertigo may go away, but the tinnitus and pressure in the ear usually stay the same and the hearing loss often gets worse.

There is no cure for Ménière's disease, but the symptoms can be managed.

Researchers are not sure how many people have Ménière's disease. As many as one person in 200 may have it, or it may be much less common. Ménière's disease is more common in people between the ages of 30 and 60, white people and women.



Normal membranous labyrinth



Dilated membranous labyrinth in Ménière's

What are the causes?

Researchers are not certain what causes Ménière's disease. It is likely that it is caused by a combination of factors. Research in this area is continuing.

Some researchers believe that Ménière's disease is caused by a build-up of fluid in the inner ear, known as endolymphatic hydrops, which interferes with the balance system. But some people have endolymphatic hydrops and do not have any symptoms. Other people with endolymphatic hydrops have hearing loss but do not have vertigo.

Another theory is that Ménière's disease is related to migraine, at least in some people. Migraine is

more common among people who have Ménière's disease. It is possible that some people with migraine are wrongly diagnosed as having Ménière's.

It is likely that Ménière's is not a single disease but a syndrome with many separate causes. It may be an inner-ear response to almost any injury. Researchers have suggested a variety of specific causes, including vascular, genetic, or autoimmune problems, infections such as viruses or syphilis, allergy, trauma, low spinal-fluid pressure, intestinal permeability, acid reflux and venous drainage.

What are the symptoms?

The symptoms of Ménière's disease are:

- attacks of vertigo (feeling like the room is spinning) that can last from 20 minutes to 24 hours; most attacks last up to four hours
- hearing loss and tinnitus in one ear that may worsen around the time of the vertigo attack
- feelings of fullness or pressure in the affected ear

Most people have symptoms in only one ear, but over time some people may be affected in both ears.

During an attack, people with Ménière's disease may have nausea, vomiting and sweating. They may have problems with how they walk (their gait) or their posture. Sometimes the attacks happen in clusters, meaning that several attacks happen close together. Between attacks, people may have no symptoms or only mild symptoms.

The symptoms of Ménière's may get worse and then better again. A person may have many attacks close together and then no attacks for years.

In the later stages of Ménière's disease, the vertigo attacks may go away on their own, although people usually have permanent balance problems. The hearing loss may keep getting worse.

How is it diagnosed?

There is no test that is “positive for Ménière’s.” Diagnosis is based on clinical criteria. After first seeing a general practitioner, you will be referred to an otologist or neuro-otologist (ear specialists) who will ask about your symptoms, your medical history and your family history. You will probably have some of the following diagnostic tests:

- general physical exam
- hearing tests
- vestibular function tests
- balance tests
- blood tests
- imaging (CT or MRI scans)

Some of these tests are done to rule out other health problems. Several other conditions can cause the same symptoms as Ménière’s disease, so your ear specialist needs to consider all the possibilities before making a diagnosis.

Clinical criteria for Ménière’s disease

A specialist can make a definite diagnosis of Ménière’s disease if the patient has all of the following:

- Two or more spontaneous episodes of vertigo, each lasting 20 minutes to 12 hours.
- Low- to medium-frequency sensorineural hearing loss in the affected ear on at least one occasion before, during or after one of the episodes of vertigo. This is measured using a test called audiometry, which measures your ability to hear sounds at various pitches and levels.
- Fluctuating symptoms (hearing, tinnitus or fullness) in the affected ear.
- The symptoms are not better accounted for by another vestibular diagnosis.

The specialist can say that the patient probably has Ménière’s disease if the patient has all of the following:

- Two or more episodes of vertigo or dizziness, each lasting 20 minutes to 24 hours.
- Fluctuating symptoms (hearing, tinnitus, or fullness) in the affected ear.
- The symptoms are not better accounted for by another vestibular diagnosis.

How is it treated and managed?

So far, there is no cure for Ménière’s disease and the hearing loss associated with it. But there are several treatments that may help make the vertigo symptoms less severe.

The treatment or treatments that your healthcare team suggests may depend on:

- your age
- how frequent and severe your symptoms are
- whether you also have other conditions such as migraine, arthritis, or allergies
- the health of your other ear

Your ear specialist may want to try lifestyle changes and medication first, especially if your symptoms are mild. If these do not work, other more invasive options may be suggested such as ear injections or surgery.

It is important to remember that Ménière’s disease fluctuates. Sometimes it gets better for a while on its own. This means that it can be hard to tell if a particular treatment is working, or if the symptoms just happened to start getting better at the same time as you started taking the treatment. It also means that it is harder to study treatments for Ménière’s disease. Some studies may show that a treatment has a good effect, or no effect, just by chance.

Researchers do know that some treatments for Ménière’s disease definitely do not work any better than a placebo. A placebo is a comparison treatment that is used during research studies. It looks the

same as the treatment that is being studied, but it does not have any effect.

Diet

Diet changes are often recommended for people with Ménière's disease. There is very little scientific evidence that these changes make a difference. But some people do find them helpful, and they are unlikely to do any harm, so you and your ear specialist may decide to try them. Keeping a health diary may help you determine whether or not dietary changes make a difference. The most common changes are:

- eating a diet that is low in sodium (salt)
- getting less than 100 mg of caffeine per day
- avoiding foods that often trigger migraines and may trigger Ménière's attacks, including monosodium glutamate (MSG), chocolate, red wine, dairy products, and aged or pickled foods

Medication

Medications for Ménière's disease include:

- **Betahistine** (Serc[®]), which is often prescribed for Ménière's disease. Some studies have found that it works to control vertigo attacks, but other studies have found that it does not work any better than a placebo. Betahistine is used in Europe and Canada, but not in the United States. It has few side effects for most people, and seems to work for some people, so your doctor may suggest trying it to see if it works for you.
- **Diuretics**, also known as "water pills," are often prescribed to reduce the fluid build-up in the inner ear. They do not work for all patients and may have side effects.

Some research suggests that diuretics may help to slow the progression of hearing loss when combined with a low-sodium diet.

- **Medications to reduce the frequency and severity of vertigo or nausea during attacks**, such as antihistamines, dimenhydrinate (Gravol[®]) or sometimes diazepam (Valium[®]).

Be sure to tell your doctor about all the medications you are taking, including vitamins, minerals, and herbal, homeopathic or over-the-counter medications. These can sometimes cause side effects or make other medications less effective.

Ear injections

If medication and lifestyle changes are not enough, more invasive treatments may be needed. Some treatments involve injecting medication into the middle ear through the eardrum (transtympanic injections). In most cases, these treatments are done over several sessions.

- **Steroid injections** may be helpful in some cases. The goal of this treatment is to reduce inflammation. There is evidence that steroid injections reduce the frequency and severity of spells. With steroids, there is little risk of hearing loss.
- **Gentamicin** is an antibiotic that damages the cells of the ear and destroys the part of the ear that controls balance. In most cases, patients who have this treatment no longer have vertigo. But there is a risk of hearing loss with this treatment. People may also have balance problems after the treatment; if this happens, vestibular rehabilitation may be helpful.

Surgery

If other treatments do not work, and vertigo is severely affecting your quality of life, one of the following types of surgery may be recommended:

- **Endolymphatic decompression**, where the surgeon removes bone from around the sac that drains fluid from the inner ear. Vertigo symptoms get better in about two-thirds of patients who have this surgery, although about the same number of patients improve without surgery. One advantage of this surgery is that it does not affect hearing. There is a small risk of spinal fluid leak with this procedure.
- **Vestibular neurectomy**, where the surgeon cuts the nerve that goes from the balance portion of

the inner ear to the brain. For most patients, Ménière's attacks go away completely after this procedure. But it is major surgery with a risk of side effects, including spinal fluid leak, infection, or stroke.

- **Labyrinthectomy**, where the surgeon removes the entire inner ear. This surgery is usually very successful at stopping symptoms, but it also causes total loss of hearing in the affected ear. It is usually done only in older patients or patients who already have profound hearing loss.

Most patients will have some symptoms after vestibular neurectomy or labyrinthectomy, including dizziness, blurred vision, and unsteadiness. Usually, they will need vestibular rehabilitation. Be aware that any destructive form of treatment comes with a risk: in about 40% of cases, Ménière's becomes bilateral (both ears affected) after surgery. You may end up with bilateral vestibulopathy and have more serious impairments.

Vestibular rehabilitation and balance retraining

Vestibular rehabilitation is a type of exercise-based therapy. Its goal is to help your body and brain relearn how to balance. Some people find that it helps them be more confident when doing their everyday activities. But it will not prevent future attacks. Vestibular rehabilitation is not usually recommended in the early episodic stage of Ménière's because the brain cannot adjust to the fluctuating nature of the disorder. In later stages, if balance symptoms remain, vestibular rehabilitation may be helpful.

Treatments that do not work

When regular treatments do not seem to work, it is very tempting to try alternative methods. Some treatments are promoted online as "miracle cures." But there is no point wasting money and time on treatments that do nothing. Keep this in mind when you and your doctor are thinking about which treatments to try.

Various alternative treatments have been suggested for Ménière's disease, including acupuncture, acupressure, neck manipulation, tai chi, hyperbaric oxygen, ginkgo biloba, niacin, ginger root, vitamins, homeopathic remedies, oatmeal, and zinc. But there is no good evidence that these treatments work.

The Meniett device is available in some countries. A small ventilation tube is put into the affected ear, and the device applies pulses of pressure to the ear fluid. Two recent reviews of several studies found that this device does not help with the symptoms of Ménière's disease. Canadian otolaryngologists (ENT doctors) no longer prescribe the Meniett device.

Living with Ménière's disease

The following strategies are specifically for Ménière's disease. There are many other general strategies that are useful for coping with a balance disorder.

Coping with attacks

Attacks can happen suddenly, so it's important to be prepared. Talk to your doctor about what medications you can take when you have an attack. Ask if there are any situations where you should call your doctor or go to a hospital.

Keep supplies available. These might include a fleece blanket, a thin pillow, a yoga mat, kidney-shaped trays to capture vomit, a cup of water and "bendy" straws, and a face cloth.

During an attack, try to do the following:

- Lie flat on a firm surface such as the floor.
- Try not to move your head.
- Try to keep your eyes open and fixed on an object that isn't moving.
- Don't eat or drink much.
- If you cannot keep down any liquids because of vomiting for longer than 24 hours, call your doctor.

After an attack, you may feel sleepy. It is okay to rest for a short time, but as soon as you can, try to

get up slowly and move around carefully so that you can regain your balance.

Let your friends and family know how to recognize an attack and what they can do to help you.

Ménière's attacks can be quite long, so have a strategy for extended support. Share your preferred plan for care with friends, relatives, and employers.

Avoiding triggers

Some people find that specific things trigger Ménière's attacks. Triggers may include:

- food and drink, such as high salt intake, caffeine, or certain foods
- alcohol
- smoking or using tobacco
- physical activity
- allergies
- illness
- stress, overwork, tiredness, or fatigue
- environmental factors, such as pressure changes, loud environments, bright or flashing lights or certain visual patterns like stripes

Your doctor may suggest that you keep a diary of your symptoms and possible triggers to see if there are any patterns. If you find that certain things trigger Ménière's attacks, it is a good idea to avoid them as much as you can.

Finding support

Understanding a disease can help you cope with it. You may find it helpful to learn as much as you can about Ménière's disease, both from this site and elsewhere.

Many people do not know very much about Ménière's disease, so you may need to educate your family and friends about it. Let your family and friends know if there are specific things they can do to support you, like helping you eat a low-salt diet.

Some people find it helpful to connect with others who have the same condition. Support groups,

whether online or in-person, can help you share information and tips and reassure you that you're not alone. For more information, see more resources.

What to expect in the future

Ménière's disease is different in different people, so your doctor probably will not be able to tell you exactly what to expect. Some people have mild symptoms and only one or two attacks. Other people have severe symptoms and frequent attacks. For many people, the disease follows a pattern of remission and exacerbation, meaning that the symptoms get better for a while and then get worse again.

Ménière's disease changes over time. For many people, the vertigo attacks eventually go away on their own, but the tinnitus and pressure usually stay the same and the hearing loss usually gets worse. People may have constant balance problems in the later stages of the disease.

In the later stages of Ménière's disease, some people have episodes where they fall to the ground with no warning, but do not lose consciousness. These are called Tumarkin's otolithic crisis or simply drop attacks. Some people only have one drop attack; others have several over the course of six months to a year. In most cases, drop attacks go away on their own, or they can be treated with steroid injections. Some people never develop drop attacks.

Recent studies suggest that high-definition MRI scans with contrast-enhanced techniques show promise as a way of detecting endolymphatic hydrops in patients with suspected Ménière's disease and confirming a final diagnosis. As of yet, however, most radiology departments are not able to do this type of scan.

Many researchers have proposed that MD is caused by a build-up of fluid in the inner ear brought about by an imbalance between the production of endolymph in the inner ear and its absorption in the endolymphatic sac. Some recent research, however, suggests that the endolymphatic sac not only

absorbs but also produces endolymph and therefore is – at least in part – responsible for too much fluid in the inner ear. This fundamental change in thinking has resulted in an experimental surgical technique called **endolymphatic duct blockage (EDB)**. EDB involves placing a permanent clip on the endolymphatic duct to separate the endolymphatic sac from the rest of the inner ear. Several small studies suggest EDB may lead to fewer vertigo attacks and improved quality of life – including protecting both hearing and balance function – for persons with MD. Research into EDB is ongoing.

From time to time, opportunities may arise to participate in clinical trials studying new treatments for Ménière's disease.

Visit our website

View this and other articles about vestibular disorders – www.balance&dizziness.org.

In addition, find information about how the balance system works, the journey from diagnosis to treatment, building a wellness toolkit, and more.

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If you find the information in this handout helpful, we ask for your help in return. The cause of supporting those affected by balance and dizziness disorders with ad-free, up-to-date, evidence-based information written for Canadians needs you. Please become its champion – [donate to Balance & Dizziness Canada](#).

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