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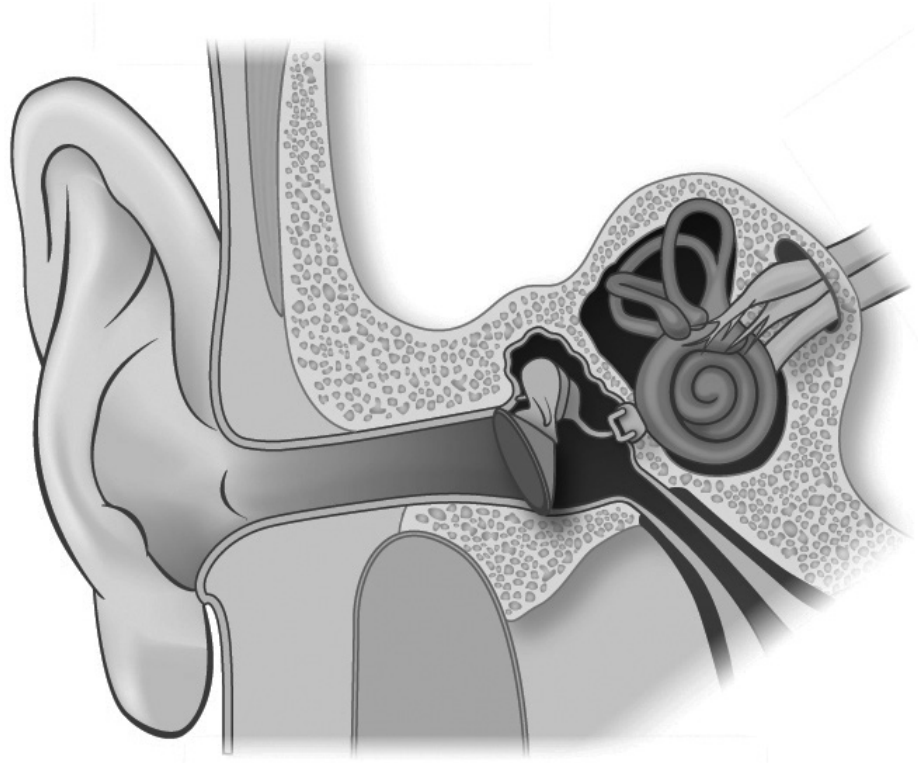
Meniere's Disease

Information for patients and families



Read this booklet to learn about:

- What Meniere's Disease is
- Possible symptoms
- How your doctor will diagnose it
- Treatment options

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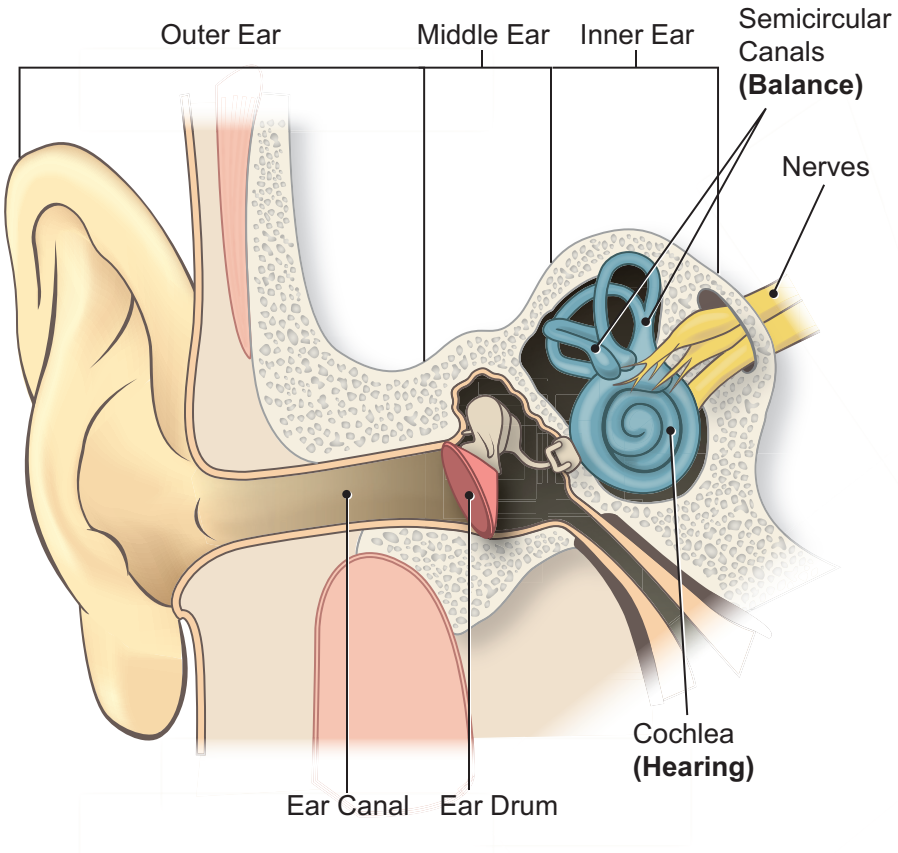
What is Meniere's disease?

Meniere's disease is a balance disorder that is caused by abnormally large amounts of fluid collecting in the semi-circular canals of your inner ear.

It is also known as "Endolymphatic Hydrops."

Meniere's disease usually affects one ear, but it can also happen in both ears at the same time.

Parts of the ear



What causes Meniere's disease?

Meniere's disease is caused when 2 different fluids mix together inside your inner ear.

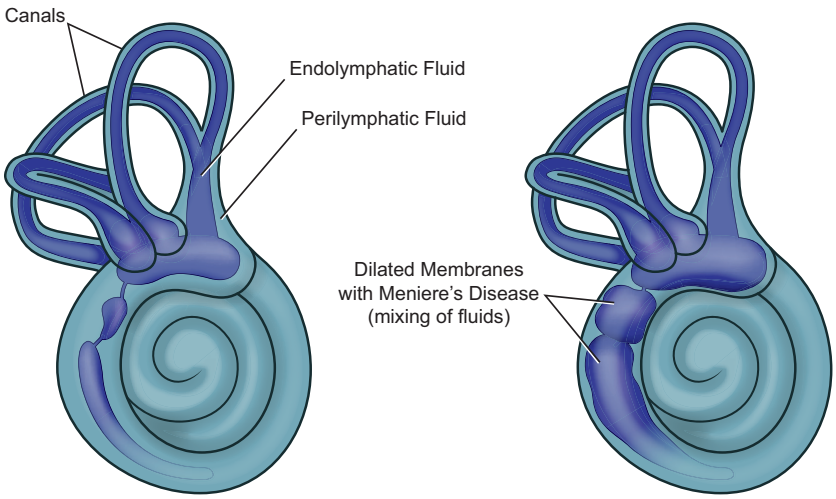
To understand this better, you should know that there are 3 canals in each of your ears that are sensitive to movement. This is your balance system.

Each of these ear canals has 2 separate chambers:

1. The outer bony chamber contains perilymphatic fluid.
2. The inner membranous chamber contains endolymphatic fluid.

These 2 fluids are very different from one another. During a Meniere's attack, the amount of endolymphatic fluid in the inner chamber increases, causing the pressure within your balance and hearing systems to rise.

Inner Ear



- When the pressure becomes too high, it causes the inner and outer chambers to rupture or burst.
- The two fluids in the chambers then mix and cause an attack of vertigo (feeling of movement when you are still). This is known as a Meniere's "attack."

- The chamber membranes eventually heal themselves and the fluid balance in your ear canal is restored. However, this mixing of fluid can happen over and over, causing more attacks.
- The cause of this disorder is not known.

What are the symptoms of Meniere's disease?

When someone has Meniere's disease, there are usually 4 major symptoms: vertigo, tinnitus, aural fullness and hearing loss.

1. **Vertigo:** A feeling of movement when you are still. This is similar to the sensation you experience if you spin around quickly several times and suddenly stop. You feel as though the room is still spinning, and you lose your balance. Episodes of vertigo can occur without any warning and usually last 20 minutes to 2 hours or more. You may also experience severe nausea, vomiting, and sweating.
2. **Tinnitus**: A ringing, buzzing, whistling, hissing or roaring sound in the ear. This sound is not heard by others. Tinnitus may get louder as the disease progresses.
3. **Aural Fullness**: A "full" feeling, or pressure in the affected ear.
4. **Hearing Loss:** Tends to come and go in the early stages of Meniere's disease, but some people may experience a degree of permanent hearing loss.

Other less common symptoms of the disease may include headaches, stomach discomfort and diarrhea.

What can I expect during a Meniere's attack?

If you have Meniere's disease, you will have intermittent "attacks" of vertigo, hearing loss, ringing and fullness of the ear that can vary in frequency and length. On average, an attack lasts 2 to 4 hours. Following an attack, you may feel very tired and will need to sleep.

Meniere's episodes may also occur in clusters (several attacks that occur within a short period of time). Between the acute attacks, most people are free of symptoms or note only mild imbalance and tinnitus problems. Years may pass between episodes.

Tracking your attacks: Keep a diary*

You should know that not everyone experiences Meniere's attacks in the same way.

You should **keep a detailed diary** of all your attacks and include this information:

- When the attack happened – What day? At what time? What were you doing at the time of the attack?
- The length of time that the attack lasts (minutes or hours)
- Symptoms that come with the attack (spinning, headache, tinnitus, pressure, fullness, hearing loss, floating)
- How you felt after the attack – How long did this feeling last?
- Did you take any medications to help you?

By tracking your attacks, your doctor or healthcare team will have a better understanding of how Meniere's affects you and, can then make decisions on how to best help you deal with it.

* If you would like a copy of the diary used in our clinic, please ask any member of the team.

How will my doctor find out if I have Meniere's disease?

The diagnosis of Meniere's disease will be made by your doctor based upon your symptoms, your clinical examination and your medical history.

For your doctor to diagnose you as having Meniere's disease, you will have had:

- Two spontaneous episodes of vertigo, each one lasting 20 minutes or longer
- Hearing loss, proven by a hearing test, at least once
- Tinnitus or aural fullness
- Your doctor has found no other causes for your sensory problems or symptoms

You will also need to have a series of tests:

1. Hearing and balance tests may be arranged for you. You may need to have an audiogram (Hearing Test), Electrocochleargram (Ecog), Electronystagmagraphy (ENG/VNG), Vestibular Evoked Myogenic Potentials (VEMP) and/or Rotational Chair Testing.
2. Since vestibular nerve tumors (i.e. Acoustic neuromas) can cause symptoms that are similar to Meniere's disease, a Magnetic Resonance Imaging (MRI) scan may also be arranged to make sure that a tumor is not causing your problems.

How is Meniere's disease treated?

There is no cure for Meniere's disease, but there are a number of things that can be done to help you manage some of your symptoms.

1. You may be asked by your doctor to take diuretics or "water pills" to help reduce your inner ear fluid pressure.
2. Your doctor may recommend that you take medications to help with the vertigo, nausea and vomiting.

3. You may be offered Vestibular rehabilitation exercises that are sometimes used to help you manage the imbalance you may have between attacks. This therapy includes exercises and activities that you perform during therapy sessions and at home, to help your body and brain to regain the ability to process balance information correctly.

Also, by making a few of the following **lifestyle changes**, living with Meniere's may become a little easier for you.

- Follow a "low-salt" (sodium) or "salt-free" diet. This will help to reduce your inner ear fluid pressure.
- Try to avoid caffeine, smoking and alcohol. Talk to your doctor if you need help.
- Get regular sleep and try to eat properly.
- Stay active and avoid excessive fatigue.
- Try to reduce your stress, which can also cause the spinning sensations and ringing in your ears.

What non-surgical treatment is available for Meniere's disease?

Steroid Injection (Dexamethasone): The doctor applies some freezing to your ear drum while you lie on a bed. After some time, he or she will inject the dexamethasone into the middle ear (through your ear drum) and you will be asked to lie in the same position for about 20 minutes.

You will return once or twice a week until your symptoms and attacks settle, or the maximum number of injections have been done. Though there are very few risks to this procedure, it is important to know that it is still considered experimental. However, some evidence shows that this treatment offers a decrease in the number of acute attacks.

What surgical treatment is available for Meniere's disease?

You should know that surgery for Meniere's disease is only recommended if you suffer from persistent vertigo that is affecting your quality of life.

There are 3 possible surgeries for Meniere's disease. Your doctor will talk to you about which option may be right for you.

- **Labyrinthectomy** – the surgeon removes a portion, or all of the inner ear, thereby removing both the balance and hearing function from the affected ear. This surgery will be done only if you already have near-total or total hearing loss in your affected ear.
- **Vestibular Neurectomy** – the surgeon cuts the nerve that connects balance and movement sensors in your inner ear to your brain. This usually corrects the problems you are having with vertigo, but still allow you to hear out of the affected ear.
- **Chemical Labyrinthectomy** – destroys the vestibular tissue with controlled injections of an antibiotic called, "Gentamicin" into your middle ear. The Gentamicin will be given a few times a day, for several days, through a tube inserted in the eardrum of your affected ear. At the start of this treatment, you may have a loss of balance, but if successful, the balance system in the treated ear will be destroyed. This will reduce or stop your attacks and you will still be able to hear out of this ear as you had before the treatment.

Where can I find support?

Meniere's disease may affect your interactions with friends and family, your work, and the overall quality of your life.

You may find that attending a support group can help you to live with this disease. By attending group meetings, you may get more information and resources on Meniere's disease.

You may also learn new coping strategies and get much needed support from the organizers, as well as from your fellow Meniere's suffers. To find a support group near you, contact the:

Meniere's Support Group
Leader: Don Lynch
30 Gloucester St.
Toronto, ON
Email: donlync@gmail.com
Phone: 416 967 3861

This group meets monthly.

Where can I get more information about Meniere's disease?

For more information about inner ear disorders, or to ask a question about Meniere's disease, please call or email:

Wanda Dillon RN
Clinical Vestibular Nurse
The Multi-Disciplinary Neurotology Centre
Toronto General Hospital
Phone: 416 340 5226
Email: wanda.dillon@uhn.ca

Online Resources

Vestibular Disorders Association (VEDA)
Website: www.vestibular.org

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