

# HEALTH IN OUR HANDS!

The Arkansas State University Wellness Program Newsletter  
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## Meniere's Disease

### Overview

A French physician, Prosper Meniere, first described Meniere's disease in 1861. There are still many unknown aspects of the syndrome. Meniere's disease is a syndrome where the patient experiences vertigo (sense of the room spinning), hearing loss, and tinnitus (ringing in the ear). The patient may experience feelings of pressure/fullness or pain in the inner ear. Meniere's disease affects people of all ages especially people middle aged or older. It is uncommon in children. Attacks are unpredictable. A patient experiences sudden symptoms that can happen every day or as seldom as once a year. The symptoms can last several hours. Most symptoms usually go away within a few hours but the loss of hearing may take a day or two to return to normal. A hearing loss can become permanent. The disease is progressive and can worsen over time because of the increase in frequency and duration of attacks. The disease can be disabling as the frequency and severity of attacks increase. In severe

cases the patient may need a wheelchair due to loss of balance. However, it is not fatal and there are treatments available. Many patients experience periods of remission where no symptoms occur for periods of time ranging from days up to years.

### Types of Meniere's disease

There are two types of atypical Meniere's disease. Atypical means the patient experiences only three of the four symptoms of Meniere's disease. One type of atypical is called cochlear hydrops. These symptoms include:

- hearing loss
- tinnitus
- aural fullness (pressure in the inner ear) but there is no vertigo

The other atypical form is vestibular Meniere's disease or vestibular hydrops. The symptoms include:

- vertigo
- tinnitus

- aural fullness but no hearing loss

Some patients that start with atypical Meniere's disease eventually get the fourth symptom (vertigo or hearing loss) progressing to the "classic" Meniere's disease. Other side effects include cold sweat, nausea, vomiting or generalized weakness. These are thought to be side effects of the symptoms of Meniere's and not actually considered to be symptoms of Meniere's disease directly.

### Causes

The cause is unknown. However, it is thought that it might be associated with the fluid levels and mixing of fluids in the canals in the inner ear. This could be the ears response to an allergy or injury. When both ears are involved it is thought that the symptoms are resulting from an autoimmune condition or allergies. Some other conditions cause symptoms similar to Meniere's disease. The disease cannot be traced genetically and is not thought to be hereditary. There are incidences slightly higher in some families so the disease is

said to be familial. Things such as fatigue and stress have been linked to higher frequency of occurrences.

## **Diagnosis**

Initial diagnosis is based on a thorough history and physical examination done by a doctor. The history should include information about the frequency, duration, severity, and character of the attacks, the duration of the hearing loss and whether it has changed, and whether there is tinnitus or fullness/pressure in either or both ears. For a definitive diagnosis tests should be performed. An audiometric examination (hearing test) will indicate a sensory type of hearing loss in the affected ear. To test balance, the physician can do an ENG (electronystagmogram) or platform testing. An ENG is done by recorded movements of the eye while introducing warm or cool water into each ear canal. Electrocochleography can be used to assess the increased inner ear fluid pressure. Other tests include an auditory brain stem response, computed tomography (CT), or magnetic resonance imaging (MRI) may be used to assess whether a tumor is causing the symptoms.

## **During Attacks**

During an attack a patient should lie flat and still while focusing on an unmoving object. Patients have reported that if they fall asleep during an attack they feel better when they wake up. To reduce the frequency of attacks avoid stress, excess salt ingestion, caffeine, smoking, and alcohol. You should get regular sleep and remain

physically active. Avoid any excessive fatigue. Patients may have other triggers and identifying these triggers can help reduce the frequency and duration of episodes but does not usually eliminate all symptoms. You should seek medical attention if any of the following occur:

- The attack lasts longer than 3 hours
- Symptoms during the attack become more severe
- Loss of consciousness
- Hearing loss lasting more than 24 hours
- The attack is atypical and not like other attacks

## **Treatment**

There is no cure for Meniere's disease but the attacks can be controlled. Treatment includes:

- A low salt diet and a diuretic
- Antivertigo medications
- Intratympanic injection with either gentamicin or dexamethasone
- An air pressure pulse generator
- Surgery

Treatment is individualized based on each patient's needs and goals. In most cases controlling salt in the diet and the use of diuretics is enough to control all the symptoms. Intratympanic

injections involve injecting medication into the eardrum in the middle ear where the ear bones reside. This can be done in the physician's office. The medication can be administered once or several times. This helps to relieve dizziness. An air pressure generator is a mechanical pump that is applied to the patient's ear canal for five minutes three times a day. A tube has to be inserted through the ear drum before using the machine to allow the pressure to be transmitted across the membrane and change the pressure in the inner ear. The success of this device varies. Surgery is only needed in a small minority of patients when vertigo cannot be controlled by conservative treatment.

## **References**

- [www.nlm.nih.gov](http://www.nlm.nih.gov)
- [www.emedicinehealth.com](http://www.emedicinehealth.com)
- [www.menieresinfo.com](http://www.menieresinfo.com)
- [www.entnet.org](http://www.entnet.org)

## **Other News**

\*\*If you have any suggestions for newsletter topics, please contact Dean Susan Hanrahan at [hanrahan@astate.edu](mailto:hanrahan@astate.edu).

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The Arkansas State University Employee Wellness Newsletter is published monthly during the academic year by the College of Nursing and Health Professions. Health questions can be addressed to Dean Susan Hanrahan, Ph.D., ext. 3112 or [hanrahan@astate.edu](mailto:hanrahan@astate.edu). Produced by Michelle Williams, graduate student in the College of Nursing and Health Professions, Physical Therapy Program.