

# MÉNIÈRE'S DISEASE



**Ménière's disease** (also known as endolymphatic hydrops) is the result of a fluid imbalance in the inner ear. Excessive fluid build-up can cause vertigo and affect hearing.

## DIAGNOSIS

Evaluation is based on a very careful history given to the ear surgeon, as well as an examination of the ears under the operating microscope to rule out obvious infections or visible growths. Ménière's disease is diagnosed involving physical examinations followed by tests:

- ▶ **Audiometry:** Ability to detect sounds at different pitches and distinguish between similar sounding words.
- ▶ **Electronystagmography (ENG):** Measure the nerve of balance. Over time, this nerve will lose function. Most patients with Ménière's disease have a reduced response to stimulation with cold and warm water or air which is used in this test.
- ▶ **Electrocochleography (ECOG):** This test measures the excess fluid accumulation in the inner ear and can confirm increased pressure due to the excess fluid accumulation in the inner ear.
- ▶ **Videonystagmography (VNG):** Test to evaluate where the inner ear is stimulated. The function is based on the movement of the eye.
- ▶ **Complete Blood Count:** The blood count is used to rule out any infection or weakness.

## SYMPTOMS

- ▶ Vertigo
- ▶ Sensitivity to loud sounds
- ▶ Tinnitus (ringing in the ears)
- ▶ Temporary or permanent hearing loss
- ▶ Fullness/pressure in the ears
- ▶ Severe attacks can include (attacks can be sudden and last for several hours):
  - ▶ Nausea
  - ▶ Vomiting
  - ▶ Increased risk for falls

## CAUSES

- ▶ Fluid buildup which may be caused by:
  - ◇ Allergies
  - ◇ Abnormal immune system response
  - ◇ Abnormal fluid drainage
  - ◇ Head injury
  - ◇ Genetic risk
  - ◇ Migraine headaches
  - ◇ Viral infection
- ▶ Middle or inner ear infection

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### TREATMENT

- ▶ **Steroid Injection:** Steroids are a powerful anti-inflammatory medication when placed in the ear in small doses. When used in Meniere's Disease, a steroid injection reduces the frequency and severity of vertigo attacks. Approximately **87%** of patients experience such improvements according to the results of medical studies. The procedure takes approximately **30** minutes. First, patients lie down flat on their back on the examining table with head turned so that the affected ear is facing up. Our ENT physicians perform the procedure with the aid of a special type of microscope. Some physicians apply a medicine directly on the eardrum to numb it before the procedure. Next, a needle is inserted through the eardrum into the middle ear. The needle contains a small amount of a steroid (dexamethasone) sometimes mixed with a small amount of lidocaine for numbing. The injection fills the middle ear.
- ▶ **Steroid Treatment:** After the procedure, patients will lie down flat on their back on the examining table with head turned so that the treated ear is facing up. Typically, patients remain in this position for **15 to 30** minutes. (This time varies based on physician preference.) Finally, a cotton ball is placed in the treated ear. The ear should be kept dry for **24** hours (no swimming or direct shower spray to the head or ear). Mild discomfort, gurgling, popping, and moisture in the ear canal following the injection are common, temporary sensations. Patients typically notice improvements with their symptoms within **2-3** days.
- ▶ **Diet:** Strict dietary restriction such as salt intake is primary. The body requires **2** grams of salt intake per day. Salt restriction results in decreased fluid accumulation in the ear by reducing excess pressure on the nerve endings of balance and hearing.
  - ◇ "Normal" Salt Diet: **1100 - 3300** mg/day
  - ◇ "High" Salt Diet: **4000 - 6000** mg/day
  - ◇ "Low" Salt Diet: **400 - 1000** mg/day
- ▶ **Lifestyle Modifications:** Stop smoking immediately. Smoking constricts and reduces blood flow to the tiny blood vessels which nourish the inner ear nerve endings. Caffeine in coffee, tea, colas, and chocolate must also be eliminated. A reasonable amount of exercise such as a walk will stimulate circulation and help blood flow.