

# Patient Instructions – Endolymphatic Hydrops



## **Endolymphatic Hydrops**

The inner ear space is called the endolymphatic space. Hydrops means that the pressure is elevated. So, endolymphatic hydrops means the pressure in the inner ear is elevated. When the pressure is elevated, it may manifest as a single symptom or multiple symptoms:

- Ear Pressure
- Hearing Loss
- Ringing in the Ear (Tinnitus)
- Vertigo

The symptoms usually fluctuate but do tend to worsen over time. When you have multiple symptoms combined with severe vertigo attacks lasting hours then you may have a disorder called Meniere's Disease.

The fluid-filled hearing and balance structures of the inner ear normally function independent of the body's overall fluid/blood system. In a normal inner ear, the fluid is maintained at a constant volume and contains specific concentrations of sodium, potassium, chloride and other electrolytes. This fluid bathes the sensory cells of the inner ear and allows them to function normally.

With injury or degeneration of the inner ear structures, independent control is lost, and the volume and concentration of the inner ear fluid fluctuates with changes in the body's fluid/blood. This fluctuation causes the symptoms of hydrops.

## **Treatment**

Your inner ear fluid is influenced by the fluids in the rest of the body. When you eat foods that are high in salt or sugar, your body level concentration of salt or sugar increases, and this, in turn, will affect the concentration of substances in your inner ear.

The overall goal is to provide stable body fluid levels so that secondary fluctuations in inner ear fluid can be avoided. Although there is no cure, the symptoms can usually be well controlled with dietary changes and sometimes medications.

- The core element is to reduced sodium input - generally between 1500-2000 mg. It is not the overall level of sodium that is important, but whether it fluctuates. We recommend distributing your food and fluid intake evenly throughout the day from day to day.
  - The average daily intake of sodium for persons in the US is about 3400 mg, and dietary guidelines recommend < 2300 mg/day.
  - The diet is almost identical to the recommendations for a healthy diet. Less than 1.6% of US adults consume less than 2300 mg/day of sodium. Thus a "low sodium" diet is not at all the same as a "regular" diet.

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- It is not necessary or wise to lower your salt intake to amounts barely able to sustain life. We do not encourage use of 1 gram sodium diets. Rather the goal is to keep sodium levels from fluctuation, and on the low side of normal.
- Yes Foods: Fresh Fruits, Vegetables and Whole Grains
- No Foods: Canned, Frozen or Processed foods.
- Drink adequate amounts of fluid daily. This should include water, milk and low-sugar fruit juices. Try to anticipate fluid loss which will occur with exercise or heat and replace these fluids before they are lost. Some studies suggest that drinking more water helps, perhaps because it dilutes out the salt.
- Avoid caffeine-containing fluids and foods (such as coffee, tea and chocolate). Caffeine has stimulant properties that may make the symptoms worse.
- Limit or eliminate your alcohol intake. Alcohol can affect the inner ear directly, changing the volume and concentration of the inner ear fluid and worsening symptoms.
- Avoid foods containing MSG (monosodium glutamate). This is often present in pre-packaged food products (such as flavored chips) and Asian Cuisines.
- Avoid tobacco containing products. The nicotine present constricts blood vessels and will decrease the blood supply to the inner ear, worsening your symptoms.