What is Ménière's Disease?

Ménière's disease is a vestibular (inner ear) disorder characterized by symptoms of vertigo (severe dizziness), tinnitus (ringing in the ears), hearing loss, and aural fullness. These symptoms are the result of an abnormally large buildup of fluid in the parts of the inner ear, called the labyrinth. The organs of balance (the semicircular canals and otolithic organs) and of hearing (the cochlea) are contained in the labyrinth, which has two sections: the bony labyrinth and the membranous labyrinth. The membranous labyrinth is part of the balance organs and contains a fluid called endolymph that stimulates receptors as the body moves. These receptors send signals to the brain regarding the body's position and movement. Within the cochlea, fluid is compressed in response to sound vibrations, stimulating sensory cells that send signals to the brain. In Ménière's disease, the

endolymph buildup in the labyrinth interferes with the normal balance and hearing signals between the inner ear and the brain. This abnormality causes vertigo and other symptoms associated with the disease.

There is a high tendency of periods of natural remission for Ménière's disease, although the effects can be lifelong. Typically affecting only one ear, tinnitus and sensorineural hearing loss associated with the disease will persist while other symptoms subside. Those with Ménière's suffer from sudden bouts of intense dizziness which are typically characterized as "vertigo attacks." The attacks can happen in clusters over several days or as singular episodes with long periods of time in between.

> Approximately **1 in 1000**, or **35,000** Canadians experience Ménière's Disease.

Ménière's disease can develop at any age, but it is more likely to happen to adults between 40 and 60 years of age. The National Institute on Deafness and Other Communication Disorders (NIDCD) estimates that approximately **615,000** individuals in the United States are currently diagnosed with Ménière's disease and that **45,500** new cases are diagnosed each year. 615,000

Currently there is no direct cause identified for Ménière's disease. There are theories that the disease is a result of viral infections, allergies, autoimmune reactions, genetics, or constriction of blood vessels similar to those that cause migraine headaches. Likewise, there is no definite cure for Ménière's, but several treatment options are commonly suggested to help lessen the symptoms experienced. Medications for the dizziness caused by Ménière's can be prescribed, as can diuretics, which are thought to help decrease dizziness by lessening the fluid volume and pressure in the inner ear. Injections into the middle ear of the antibiotic gentamicin or a corticosteroid can help control vertigo, although gentamicin can also damage the hair cells in the inner ear thereby increasing the risk of hearing loss. When all other treatments have failed to ameliorate vertigo, surgery to decompress the endolymphatic sac or to cut the vestibular nerve can be performed.

The unpredictable and incurable nature of Ménière's can make it difficult to cope with the disease. Those with the disease must educate themselves and those around them about how the disease impacts their life. It is important to communicate what might be needed when a vertigo attack strikes and how others can help.

