Managing Ménière's Disease

Triggers and Treatments (Part Seven)

Medical Devices and Surgical Procedures

By

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Although Ménière's Disease is '<u>relatively rare</u>' in the <u>United States and other countries</u>, the medical community has shown some interest in helping sufferers of the illness. We looked at <u>Lifestyle</u> <u>Changes</u> and <u>Medications</u> in previous articles. We turn now to **Medical Devices** and **Surgical Procedures**.

Medical Devices

A medical device is any appliance, apparatus, software, material, or other articles, which may be used in isolation or combination (as defined by the manufacturer) by individuals for a medical purpose. <u>News Medical Life Sciences</u>

Since Ménière's Disease affects people in so many different ways (e.g. dizziness, imbalance, hearing loss, vertigo), we will find many 'medical devices' that can help. Here are some to consider, depending on your need at the moment or in the future. You may want to discuss these devices with your ENT, Neurologist, and/or Audiologist before purchasing. You can also talk with other Ménière's patients who have experience with these devices to see if the investment is worth your time and money. Also, check to see what devices are covered (fully or partially) by your insurance company [I am a journalist, not a salesman. I am in no way recommending any of these devices. My only purpose is to report about what medical devices are available to the public. The decision to use them (or not) is yours and your doctor's.]

Hearing Protection

<u>Choose The Hearing Protection That's Right For You</u> – NIOSH, CDC

- Expandable Foam Plugs
- Pre-molded Reusable Plugs
- Semi-insert Earplugs
- Canal Caps
- Safety Earmuffs

Hearing Aids and Implants

<u>Types of Hearing Aids and How They Work</u> – Cleveland Clinic

Hearing Aids vs. Cochlear Implants – Duke Health

<u>CROS and BiCROSS Hearing Systems</u> – Healthy Hearing

Bone Anchored Hearing Aid (BAHA) — Healthy Hearing

Bone Conduction Hearing Aids — Johns Hopkins Medicine

<u>Middle Ear or Cochlear Implant</u> – Cambridge University Hospitals

Benefits and Risks - FDA

<u>Auditory Brainstem Implant</u> – Mayo Clinic

<u>Meniett® Device</u> — National Library of Medicine

<u>Positive pressure therapy</u> – Cochrane Library

<u>Meniett Clinical Trial: Long-term Follow-up</u> – JAMA Otolaryngology

Tinnitus Devices

<u>Hearing Aids / Masking Devices</u> — American Tinnitus Association

Sound Therapy/Generators — American Tinnitus Association

<u>Retraining Device</u> — NYU Langone Health

<u>Common Device Masking</u> - Dizziness-and-Balance

<u>Sound and Electrical Stimulation of the Tongue</u> – Science Daily, University of Minnesota

<u>Tinnitool Therapy</u> — <u>National Library of Medicine</u>

Clinical Trials

<u>Mastoid Oscillator</u> – ClinicalTrials.gov

<u>Transcutaneous Auricular Vagus Nerve Stimulation</u> – ClinicalTrials.gov

<u>Otoband Experimental</u> – ClinicalTrials.gov

Surgical Procedures

If the incidences of vertigo are not controlled by medications, surgery may be recommended. Surgical procedures can eliminate the frequent spells of vertigo that occur in Meniere's disease; however, no surgery has been found to improve the hearing loss. <u>Mount</u> <u>Sinai Center for Hearing and Balance</u>

Some surgical procedures for Ménière's Disease are viewed as 'non-destructive' to hearing, while others are viewed as 'destructive' to hearing. Doctors have told me that surgical procedures to the ear are 'very delicate.' I was also told that 'ablative' treatments for people with bilateral Meniere's Disease was generally 'contraindicated' because of risks of 'bilateral vestibular and cochlear hypofunction.' I used a variety of medical and <u>health insurance information</u> publicly available for my research. I talked with doctors from a variety of specialties concerning Ménière's, watched many videos about surgical options, talked with people suffering with Ménière's, and visited many Ménière's forums to see what other people were saying about their experience with surgical procedures.

As always, discuss these options with your doctors.

Non-Destructive to Hearing

- Endolymphatic sac, or shunt, surgery Mount Sinai Center for Hearing & Balance
- Endolymphatic sac decompression/endolymphatic sac drainage — JAMA Otolaryngology
- Intra-tympanic corticosteroids injections/perfusions –
 National Library of Medicine
- <u>Lateral semi-circular canal plugging</u> Otology & Neurotology Journal
- 5. <u>Perilymphatic fistula patching</u> Cleveland Clinic
- 6. <u>Sacculotomy</u> Otolaryngologic Clinics of North America
- 7. <u>Tympanostomy tube insertion</u> National Library of Medicine
- 8. <u>Vestibular nerve decompression</u> Bon Secours
- <u>Vestibular neurectomy (nerve section) or neurotomy</u> (including middle fossa or retrosigmoid vestibular neurotomy) – Science Direct

Destructive to Hearing

- 1. <u>Cochleosacculotomy</u> JAMA Otolaryngology
- 2. Intra-tympanic gentamicin The Lancet
- 3. <u>Labyrinthectomy</u> Science Direct
- 4. <u>Translabyrinthine vestibular neurectomy</u> Mercy Health
- 5. <u>Vestibulocochlear neurectomy</u> MedicineNet

Investigational and Experimental

(Some insurance companies may not cover these, so check on that before proceeding.)

- <u>Cochleostomy with neurovascular transplant</u> Centers for Medicare and Medicaid Services
- Intra-tympanic injection of dexamethasone thermosensitive gel — National Library of Medicine
- Positive pressure therapy for improving outcomes of endolymphatic sac surgery — Frontiers in Neurology
- <u>Simultaneous labyrinthectomy with cochlear implantation</u> (for bilateral Meniere's disease) — Cambridge University
- <u>Tenotomy of the stapedius and tensor tympani muscles</u>
 Acta Oto-Laryngologica Journal
- <u>Triple semi-circular canal plugging</u> MedicalXPress
- <u>Triple semicircular canal plugging: a novel modality for</u> <u>the treatment of intractable Meniere's disease</u> — National Library of Medicine

We'll look at **Counseling** and **Physical Therapy** in the next *Managing Ménière's Disease* eBook.

"... rejoicing in hope, patient in tribulation, continuing steadfastly in prayer." Romans 12:12

Here's to hope!

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