

Hearing Health Matters!



Ontario Association of Professional Audiology Clinics
Your Hearing Deserves An Audiologist

What you should know about Hearing Loss and Ototoxicity

Ototoxicity literally means ear poisoning (oto = ear) and results from exposure to drugs or chemicals that damage the ear or the 8th cranial nerve (the nerve sending balance and hearing information from the ear to the brain). There are 700+ drugs that are toxic to the ear – causing hearing loss, tinnitus, dizziness, and/or bouncing vision. The effects may be reversible and temporary, or irreversible and permanent. Risk factors include drug dosage and duration, number of times using ototoxic drugs, kidney problems, prior exposure to radiation, age, genetics, and more¹.

Drugs that are known to be ototoxic include those used to treat cancer and life-threatening infections^{2,3}. Certain blood pressure medications and ointments for various ailments can be toxic to the ear as well².

Medicines most commonly used that can cause hearing loss include:

- Aspirin, when large doses (8 to 12 pills a day) are taken.
- Nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen and naproxen.
- Certain antibiotics, especially aminoglycosides (such as gentamicin, streptomycin, and neomycin). Hearing-related side effects from these antibiotics are most common in people who have kidney disease or who already have ear or hearing problems.
- Loop diuretics used to treat high blood pressure and heart failure, such as furosemide (Lasix) or bumetanide.
- Medicines used to treat cancer, including cyclophosphamide, cisplatin, and bleomycin⁴.

Other causes of hearing loss may include organic solvents and heavy metals that are ototoxic. These include paint and paint thinners, liquid paper, insecticides, and even rug cleaners and auto emissions. Further, the ototoxic effects of these substances can be aggravated by noise, making them much worse^{2,5}.

Good practice advice: If your patient is prescribed ototoxic drugs or is exposed to substances at work, "use an audiologist to monitor hearing before, during, and after drug treatment"¹

References

- ¹ Today's Geriatric Medicine- <http://www.todaysgeriaticmedicine.com/archive/052714p6.shtml>
²Bauman N. Ph.D.Ototoxic Drugs http://www.hear.net/features/articles/Ototoxic_Drugs_Exposed.pdf
³Ototoxicity. Vestibular Disorders Association website. <http://www.vestibular.org/ototoxicity>.
⁴Medicines That Cause Hearing Loss - Topic Overview <http://www.webmd.com/a-to-z-guides/tc/medicines-that-cause-hearing-loss-topic-overview>
⁵American Speech-Language-Hearing Association Audiology Information Series. Medication effects on hearing. <http://www.asha.org/uploadedFiles/aud/InfoSeriesHearingMedicationEffects.pdf>

With so many places to refer your patients, it becomes difficult to choose what is best for your patient.

"As independent practices, we are not limited. When your patient has a permanent and irreversible hearing loss, we can prescribe from 10 different hearing aid manufacturers."

Greater emphasis is being placed on hearing health.



"Hearing loss caused by an ototoxic medicine tends to develop quickly. The first symptoms usually are ringing in the ears (tinnitus) and vertigo."⁵

The Ontario Association of Professional Audiology Clinics (OAPAC) represents independent audiology practices in Ontario.

Like Physicians, Audiologists of OAPAC

- ✓ Own and manage their practice
- ✓ No quotas, no franchises, no conflict of interest
- ✓ Assess and make appropriate recommendations
- ✓ Share the licensed Act to prescribe hearing aids
- ✓ Offer full scope of practice to all ages
- ✓ Are regulated...No misleading advertising, no testimonials

**To find an OAPAC Clinic near you, call
1-844-41-2-HEAR (4327)**



Audiologists spend 7 to 9 years in University. The minimum requirement to practice in Ontario is a Masters Degree in Audiology or equivalent.

Sudden hearing loss? Call us immediately!

1-844-41-2-HEAR (4327)
www.oapac.ca