

Hearing Loss

Almost all of us will get hearing loss eventually. Hearing is like most other systems in our body, it gets a bit weaker as time goes. And it is far more **common in young people** than you realize and **most people don't even know they have it.**

Before we talk about how we are going to help your hearing, it is important to know a tiny bit about the **parts of your ear and brain that make up your hearing.** The outer ear is the part of the ear you can see and the canal inside. Anything that blocks the canal completely can reduce the sound going in. A perfect example is a foam plug. Another cause is skin infections called "Swimmer's Ear". **Wax almost never causes hearing loss.** The middle ear has all the amplifiers you have built so you can hear on land. (There is Scientific Evidence that we used to live under water millions of years ago. You don't see too many fish with ears because they don't need outer and middle ears.) The middle ear has **the eardrum, ear bones and the middle ear chamber where your Eustachian Tube** drains (like the drain in your bathtub). **The middle ear is actually a sinus** so whatever your nose is doing, your middle ear is doing. If you have a runny nose, chronic allergies or a cold, one of both of your ears will often plug up. The inner ear is just the nervous system of hearing and includes a little nerve coil called **the cochlea**. It's **organized like a piano but instead of 88 keys, it has about 20, 000!** In rare cases (about 1 in 100,000), you can get hearing loss in the "**retro**"**cochlear nerves** (cables) that run to your brain's hearing centre. Finally, even the area of your brain that makes sense of the world of sound around you (called **the Auditory Cortex**) can affect your ability to hear. Because of so many different parts, my job is to try to figure out **where your hearing loss is coming from.**

Most hearing loss occurs super slow and most people don't even know it for many years until one day, **one or both of the ears start "ringing", "buzzing" or "hissing". This is called Tinnitus** and it is a way your brain and cochlea try to "help" you hear by amplifying sound. Unfortunately, **unlike hearing aids (which have become awesome in recent years by the way)** your brain and inner ear are not very good at it so they amplify everything and you end up hearing either static or "a pin drop" because your normal hearing also gets boosted. Hearing aids only amplify the notes you are actually missing (remember there are about 20, 000 of them) and **slowly train your brain to shut off your tinnitus.** Common causes of slow hearing loss are **noise exposure** (even shooting a rifle just one time can do it!), **genetics, maturity** and **super rarely a benign fat blob that grows (and squeezes) on the hearing nerve called a "neuroma" or "schwannoma".**

Hearing loss can also happen really fast ("overnight") like when you fly on a plane, get wax stuck on your eardrum (again rare, but Q-tips are great at jamming wax too deep into your ear hole), have an outer or middle ear infection or rarely an **inner ear infection**, where you can actually get permanent nerve damage. Ironically, **fast hearing loss is usually temporary.**

Today, we will examine your ear holes and maybe pick your nose a little to try to figure out **what part of your hearing system is not working.** Usually it is as simple as "popping your ears" or test driving/renting a set of hearing aids. (Don't be stubborn. They are more amazing than phones nowadays).

Dr. Jon M. Adamis MD, FRCS (C)