"Excuse me?"

Hearing loss is inevitable and, just like the other senses *(sight, taste, smell, touch),* loses sensitivity with age.

By Kevin Braat, MD

Hearing is a neurologic function with two distinct and independent components, the ear and the brain; both are needed to hear effectively. The inner ear part of hearing can deteriorate due to age, infections, circulatory problems, genetics and environmental exposures (noise, medications and toxins). The brain part of hearing can deteriorate due to lack of stimulation (most commonly when sound is not being sent to the brain because the ears have lost acuity) or other brain changes due to neurologic diseases. Many people have issues with both the functioning of the ear and the hearing part of the brain. Only a physician who specializes in the auditory (hearing) system can make an accurate diagnosis for the cause of an individual's hearing loss and prescribe the proper treatment.

The effectiveness of amplification (hearing aids) cannot be determined until the hearing function of the brain is evaluated. This additional testing can be a predictor of the success of hearing aids and is critical to exclude non-ear related causes for hearing difficulties. Traditionally, hearing aids only made things louder and could not correct for weaknesses in brain function which is why some people do not hear well even with hearing aids. The other big factor that must be taken into consideration before prescribing a particular hearing aid is background noise—if hearing aids are making speech sounds louder, that can also be amplifying background noise which can actually make a hearing impaired person's ability to hear even worse!

Today's Hearing Aids:

Technologies have changed and the level of sophistication of certain hearing amplification devices in 2012 can be like comparing a 1950's transistor radio with an Apple i-pod; there is no comparison. Some of the more sophisticated and technologically advanced hearing aids can actually trick the brain into hearing sounds in a frequency range that a person is totally deaf in. Some hearing aids are so sophisticated now that they are actually small computers with microprocessors which have the ability to change the frequency of sounds. If a person is deaf in one frequency range, the hearing aid can be programmed to change these sounds to a different frequency where there is still hearing. Other significant digital enhancements include directional microphones, background noise filtering and blue-tooth technology.

When to get a hearing test:

If you have or think you have hearing loss, now is a good time for an audiologic evaluation. Some associated symptoms that justify evaluation sooner rather than later are hearing loss that seems to be worse in one ear, tinnitus (ringing/buzzing in ears/head), vertigo/dizziness, ear drainage and ear pain. Audiology testing is covered by most insurance plans including Medicare when ordered by a physician.

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