

Audiology

What is an audiologist?

An audiologist specializes in the evaluation, treatment, and prevention of hearing loss. One must complete graduate studies in speech and hearing science as well as obtain national certification and state licensure in order to practice as an audiologist.

What does a hearing evaluation consist of?

First, the audiologist looks in your ears with an otoscope, ear light, looking for signs of infection, large amounts of wax, or anything else that may interfere with testing. This is painless and takes a few seconds. Next, headphones or soft foam earphones that fit inside the outer ear will be used to test your hearing. You will hear faint tones and be asked to raise your hand or press a button each time you hear the tones. You will also hear spoken words and be asked to repeat them. Small children are tested in a similar fashion using games and toys. If a hearing loss is noted, further testing with tones and static-like noises will be used to determine which portion of the ear has been damaged. Middle ear pressure may also be tested. This procedure is brief and painless using a soft rubber tip that is inserted into the outer ear canal.

What causes hearing loss?

Hearing loss may occur when the outer ear is plugged with wax, there is an ear infection, fluid in the middle ear space, a hole in the eardrum, or fractures or stiffening of the small bones in the ear. This is called a *conductive* hearing loss and should be treated by a physician. Often, hearing can be restored to normal with early detection and treatment. *Sensorineural* hearing loss occurs when there is damage to the inner ear or cochlea (the shell shaped part of the ear that houses the nerves and organ of hearing). Damage to the cochlea most commonly is a result of noise exposure, aging, infection or large doses of certain medications. Once the inner ear has been damaged, the hearing loss *cannot* be reversed. A *mixed* hearing loss has both a conductive and sensorineural component. *It is recommended that all hearing losses be evaluated by a physician.* Once medical clearance has been obtained, hearing aids may be recommended.

What do hearing aids do?

A hearing aid is like a miniature sound system for the ear. There is a small microphone that detects and amplifies sounds, and a receiver (or speaker) that transmits those amplified sounds to the ear. Hearing aid technology ranges from simple, conventional circuits to very sophisticated digitally programmable and digital circuits. They are available in a variety of sizes ranging from behind-the-ear to small, in-the-ear styles. **Most people with a hearing loss can benefit from properly fitted hearing aids.** The audiologist is available to discuss hearing aid options.

How can I protect my hearing?

Ear protection (earplugs or muffs) should be used when exposed to loud sounds such as firearms, power tools, mechanical or industrial equipment and loud music. As a rule, if the sound is loud enough to make your ears ring or tickle, it is loud enough to damage your hearing! Custom earplugs are available that allow you to hear and still protect your hearing (often used by musicians and hunters). It is important to protect your hearing; noise induced hearing loss cannot be reversed.