

Hearing Aids

Hearing aids are the primary means of managing hearing loss that cannot be treated medically or surgically. Your audiologist will conduct a comprehensive hearing evaluation to determine whether or not you are a candidate for hearing aids. Based on your evaluation, the audiologist may recommend hearing aids or make a referral to investigate medical or surgical options.

Hearing aids are similar to a miniature public address system. The microphone picks up the sound, the amplifier makes the sound louder, and the receiver (speaker) delivers the sound. In 2009, 98 percent of all hearing aids are digital. Digital technology allows advantageous manipulation of sound in many useful ways. Some hearing aids are completely automatic, while others have user-adjustable controls. Your audiologist will work with you to review hearing aid options. The two of you will select the best configuration for your particular needs. All hearing aids are powered by a battery.

Types

Hearing aid styles may be broadly classified as "standard" and "custom." Standard hearing aids include behind-the-ear (BTE), mini-BTE, and receiver-in-the-canal (RIC) devices. These products are designed to fit most ears and usually require some customization of the earpiece and the connection of the device to the earpiece. Custom hearing aids include in-the-ear (ITE), in-the-canal (ITC), and completely-in-the-canal (CIC). These products require a custom-molded shell that houses the electronics. Standard and custom hearing aids come in a variety of colors, shapes, and sizes.

The choice of hearing aid styles and features is based on several factors including the exact type and degree of hearing loss, your individual needs (such as communication requirements, lifestyle, and manual dexterity), and your medical and audiological history and related findings.

One or Two Hearing Aids

If both ears need amplification, your audiologist will recommend two hearing aids. Research has shown that two hearing aids provide superior benefits for the majority of people with regard to better word recognition in quiet and noisy backgrounds, better quality of sound, better localization ability, more natural hearing. Research has also shown that when both ears are candidates for hearing aids and only one ear is fitted, the unaided ear may lose speech recognition ability more rapidly than the fitted ear.

Features

Several features are available to improve the hearing aid experience. The most common are

- Directional microphones to enhance speech understanding in noise,
- Noise management to improve listening comfort in noisy situations,
- Feedback cancellation to alleviate the annoyance of whistling and buzzing, and
- Telephone programs to access sound from phones and other sound sources.

Fittings

After your hearing aids have been selected, they must be fitted appropriately. Hearing aids must amplify sounds so they can be heard comfortably without causing discomfort, and hearing aids must be secure and physically comfortable in the ear. The hearing aids are adjusted using a computer in the audiologist's office, and the results can be measured. However, the audiologist's office does not usually represent the variety of sounds heard in everyday life, and so your new hearing aids will need to be evaluated in the sound environments important to you; a daily journal is useful for this purpose. By working with your audiologist, the hearing aids can be adjusted to perform most functions optimally and automatically in these environments. Your audiologist will likely suggest specific hearing assistive technologies to supplement the hearing aids and to address specific complaints.

Maintenance and Insurance

Your audiologist will review with you the details of your insurance coverage (if available), financing options, loss, theft and damage insurance, warranty, service protocols, maintenance advice, as well as introductory periods and return policies.

As with all electronics, hearing aids require care and maintenance. This includes handling them carefully, not exposing the hearing aids to water and chemicals, and keeping them very clean. Your audiologist will discuss and demonstrate proper daily care as well as maintenance techniques and maintenance products. The hearing aid user's manual will review many of these same points. Given the hostile conditions (temperature extremes, high levels of humidity, ear wax, etc.) under which hearing aids

operate, daily cleaning and maintenance is recommended. Proper care and maintenance clearly reduces the need for repair.

Expectations and Outcomes

Even with the best technology, it is important to maintain realistic expectations. While hearing aids make sounds easier to hear, they will not restore normal hearing. Hearing aids re-introduce you to a world of sound, and it takes time to become accustomed to the new sounds. Some people adjust quickly, others take longer. Your audiologist will discuss auditory training programs, communication strategies, and hearing assistive technologies to alleviate difficulties in these situations.

Untreated hearing loss impairs memory and may cause difficulty related to learning new tasks. Untreated hearing loss may result in decreased job performance and has been shown to negatively impact wages and earnings. Hearing loss treated with hearing aids has been shown to decrease fatigue, irritability, risk to personal safety, and withdrawal from social situations. Further, in many research studies, hearing aid use has been shown to increase the wearer's quality of life.

Information was obtained from the American Academy of Audiology website at www.audiology.org.