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How Does My Hearing Aid Work?

On a basic level, all hearing aids are small amplifiers. With todayâ€™s digital technology, this amplification can be finely manipulated to suit a patientâ€™s hearing loss and needs. There are 3 main parts to every analog and digital aid: a microphone, receiver (small loudspeaker), and battery.

Sound first enters the aid through the microphone on the outer casing. On in-the-ear styles, the microphones are typically located beside the battery door. On behind-the-ear styles, the microphones are typically located above the battery door. The acoustic input is converted into an electric signal, amplified, and then converted back to an acoustic signal. The receiver then plays the amplified sound back to your ear. A very small button like zinc-air battery will power the aid, allowing the parts to function to perform this process. Digital aids also have a computer chip that converts the incoming signal into digital codes that can be very specifically manipulated to allow complete user customization.

While these aids are becoming more and more sophisticated, they are still a form of amplifier and cannot restore hearing to normal. Patients may need time to adjust to the â€œnewâ€• sounds they are hearing. Many people lose their hearing so gradually; they do not realize all of the daily everyday sounds they have lost. Ice clinking in a glass, the hum of a computer, or the noise of the road as you drive may seem suddenly loud or bothersome. Over time with consistent wearing, the brain will acclimate to these sounds and perception of benefit should increase! Most people will notice instant benefit with one-on-one communication and increased ease of daily listening.

It is also very important to note that aids will probably improve large group listening situations, but that in larger, noisier situations listening may still be difficult. It is good to remember that when a large amount of background noise is occurring, even persons with normal hearing will have greater difficulty communicating. Modern digital aids do help to reduce the amplification of background noise, but cannot remove them entirely. Digital hearing instruments understand what is speech-like and noise-like, but cannot determine definitely the difference in speech and noise. Noise tends to be more steady, static, and unchanging (e.g., a fan running). Speech tends to be more varied and changing over time. More static sounds will be recognized as noise and amplification will be reduced for those sounds. However, when you are at an event where many people are talking in the background, the aid may not be able to pick up the difference in speech and noise and will reduce the background much less. When this occurs, other adjustments may be necessary to improve your listening experience. Speak with your hearing healthcare professional about how your hearing aids can help you!

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Our primary goal is to provide you, the patient, with the best possible clinical services. These typically involve the testing and diagnosis of your condition, with recommendations, if applicable, for steps we can take together to remediate or improve your situation. Recommendations may

occasionally include a referral to another professional, such as a speech pathologist, a physical therapist, a vocational counselor, or a physician who specializes in medical treatment of the ear. a http://budurl.com/hbafeb12article

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