

Types of Hearing Aids

Hearing losses are very individual and can vary from person to person. Most hearing losses can be helped with hearing aids. The audiologist will help in the selection of hearing aids that are most suitable for you.

There are two major types of hearing aids: behind-the-ear and in-the-ear.

Behind-the-ear (BTE) instruments fit discreetly behind your ear.

They transmit sound through a small plastic earmold that fits inside your ear canal.



In-the-Ear (ITE) instruments range in size from a full-shell model which fills the entire bowl of the ear, down to completely-in-the-canal (CIC) model, which fits entirely in your ear canal.

Choosing the Appropriate Hearing Aid

Most people choose hearing aid styles based on vanity, yet there are many things to consider when making this decision.

- The severity of your hearing loss. Certain hearing aids best fit certain types of losses. The type of loss may inhibit specific styles.
- The need for certain options on the hearing aid. Directional microphones help in background noise environments. A telecoil (telephone switch) can help to make a better coupling between the hearing aid and the phone. Larger hearing aid styles are needed to accommodate these features.

- The anatomy of your ear. The space inside your ears varies from person to person. Most ears are big enough for the In-the-Ear hearing aids, but may not always be large enough to accommodate the smallest types that fit deep into the ear canal.
- Your dexterity. Hearing aids are small devices that need to be handled when inserting and removing from your ear. Batteries also need to be changed. The size of the battery is smaller when the hearing aid style is small. Those patients with arthritic fingers or reduced feeling in their fingers will be more comfortable handling the larger in-the-ear styles.

One Hearing Aid vs. Two

To get the most benefit from amplified sound, you need to take advantage of the ear's natural ability to process sound. Obviously, the most natural way to hear is with two ears. This is called binaural hearing. Simply put, this means you have sounds being received and processed in both ears.

People with hearing loss in both ears report the following benefits of using two hearing aids:

- Better understanding in noisy places. By wearing two hearing aids rather than one, selective listening is more easily achieved. This means your brain can more easily focus on the conversation you want to hear, and ignore unwanted background noise.

- Better localization of sound. In our busy daily activities we need to hear where sounds are coming from for our own protection as well as for our enjoyment. Being able to “find” the bird singing in the tree or hear the car coming from a direction you are not concentrating on are just two examples.
- Better sound quality. When listening to a stereo, two speakers are used to get the smoothest, most natural sound quality. The same is true when wearing two hearing aids. You increase your hearing range from 180 degrees of reception to 360 degrees, giving you a better sense of balance and sound quality.
- A wider hearing range. A person can hear sounds from a further distance with two ears as opposed to one. A voice that is barely heard at 10 feet away with one ear can be heard up to 40 feet away with two ears.

Listening is less tiring and more pleasant. Wearing two hearing aids offers less stressful listening and participating in conversation is more enjoyable.

Most of the hearing aids manufactured today are digital, running powerful computer microchips to provide the best sound quality. The levels of digital technology can be related to the level of fine-tuning available and the performance in various listening environments.

Realistic Expectations of Hearing Aid Use

As soon as you start wearing hearing aids, you begin the process of “re-learning” how to hear. Remember, in most cases, your hearing gradually over time became worse.

With hearing aids, you will notice improved hearing of all sounds in a very short period of time. Although some people adjust immediately, it usually takes practice to become a skillful and successful hearing aid user.

Hearing aids do not restore your hearing to normal levels. Hearing aids do allow for the awareness of sounds and improved hearing in conversation.

When you have a hearing loss, you don't hear your own voice as others hear it. Some people speak louder when they have a hearing loss because they cannot monitor the level of their voice. Using hearing aids will allow you to hear your own voice as others do.

You will have the sensation that something is in your ear; because there is. This feeling will improve. Hearing aids should fit comfortably. That is why molds are taken of your ears to insure a "good" fit.

It is a noisy world we live in. Every movement makes a sound. As your brain becomes accustomed to these sounds again, they will not be as noticeable to you.

With hearing aids, you will now hear sounds that you have not heard in a long time.

"Normal" hearing individuals experience these sounds everyday. It will take time to fully adapt to this. Most important, you may have significant improvement over how well you hear with hearing aids in vs. hearing aids out.

Hearing Aid Cleaning and Maintenance

Hearing aids are like most common products people own, in that they require regular maintenance.

- Wipe away any residue material on the outside of the hearing aid with a soft cloth
- Do not use water

- Do not use alcohol
- Do not expose hearing aids to lotions, hair sprays or gels.
- Do not expose hearing aids to high temperatures.
- Do not keep hearing aids turned on when not in use.
- Do not put excessive pressure on hearing aid or battery door.
- Protect hearing aids from small children who may drop or damage the aid.
- Keep hearing aids out of the reach of dogs or cats. These pets may be attracted to the hearing aid by your scent on the aid or the high pitched squeal it emits if the battery is left in it. Pets can chew or even swallow the aid, battery and all.

Batteries

Most hearing aids today are powered by zinc-air batteries. These batteries rely on oxygen to produce an electric current. When the air tight seal (colored tab) is removed from the battery, oxygen enters the battery to stimulate a chemical reaction which produces an electric current.

This air tight seal allows the battery to be stored for long periods of time with very little power loss. Zinc –air batteries average a cost of \$1.00 a battery. Battery life ranges from a few days for the CIC aids to 2 possibly 3 weeks for the full shell or BTE hearing aids.

Zinc air batteries will function within a matter of seconds once the tab is removed. However, they may not reach their full voltage (1.4 volts) for a period of time. This is referred to as the “ramping up” period. If battery testing occurs immediately upon removal of the tab, the battery may test at a lower voltage (e.g. 1.35 volts) but will eventually reach 1.4 volts or higher. Keep in mind that many of today’s digital hearing

aids require a minimum amount of voltage to function. Sometimes when you first peel the tab off of a fresh battery and immediately place it in the hearing instrument, the hearing aid may beep, signaling a dead battery. In this case, the battery may not have reached sufficient air to generate enough voltage to allow the hearing instrument to function. By simply allowing a minute or two to pass, the problem often resolves itself. Batteries need to be kept in a dry environment with stable temperatures. Batteries should not be exposed to extreme hot nor extreme cold temperatures.

Do not keep dead batteries.

Some brands may affect the performance of the hearing aid. The (+) side may not be flat and therefore not make a consistent contact with the battery contacts inside the hearing aid.