

Digital Hearing Aids

Most hearing aid models that are sold today are digital, meaning incoming sound is converted into a digital signal, processed using mathematical equations then converted back into sound. This allows the hearing aid to divide sound into many different frequency regions and amplify each region individually for a more accurate correction of your hearing loss. This processing within hearing aids enables different amounts of amplification for soft, moderate, and loud sounds; therefore a manual volume control is not necessary. Digital sound processing enables very complex manipulation of sound, (see hearing aid technology).

Digital hearing aids are programmable, meaning the hearing aid settings can be precisely fine tuned and special features can be customized for each wearer by an audiologist, using hearing aid software on a computer. If your hearing changes the hearing aids are simply re-programmed.

Styles of Hearing Aids

Behind-the-Ear (BTE) Styles

Micro/Mini Behind-the-Ear- This style of BTE is more commonly known as an "open fit" hearing aid. The miniature body of the hearing aid sits behind the ear and is connected to a small thin tube that transmits sound to the ear. A small plastic tip or dome is attached to the tube and sits in the ear canal. This style is called an "open fit" because the dome sits comfortably in the ear but does not occlude or block the ear canal. This style of BTE is recommended for patients with a mild to moderately-severe hearing loss.



Receiver-in-the-Ear (RITE) - Receiver-in-the-Ear or RITE hearing aids are similar to the open fit hearing aids except the speaker unit of the aid actually sits in the ear itself instead of the main body of the hearing aid. The RITE style of hearing aid can cater to a more severe degree of hearing loss (mild to severe) while still maintaining the open fit feel.



BTE and custom earmold- This BTE style is slightly longer in shape compared to the micro or RITE styles; however it is capable of fitting the widest range of hearing loss (mild to profound). The BTE body is connected to the earmold via plastic tubing that sits snugly against the ear.



In-the-Ear Styles

Completely-in-the-Canal (CIC) - The smallest in-the-ear hearing aid made. CICs sit deeply and entirely inside the ear canal. They fit mild to moderate hearing loss and offer high cosmetic appeal.



In-The-Canal (ITC) – This style sits in the lower portion of the outer ear's bowl and is slightly larger than a CIC hearing aid. ITC allows for more options and longer battery life due to it's size. This style fits mild to moderate hearing losses.



ITC



Full Shell or In-The-Ear (ITE) - The largest of the in-the-ear hearing aids. Full shell hearing aids fill up the entire bowl of the outer ear. This style allows for the maximum number of controls and features, and is able to fit mild to severe hearing losses.



Hearing Aid Technology

Digital hearing aids offer sophisticated features, even in the basic models, for patients who regularly encounter dynamic listening situations. Examples of some features that are available are as follows:

Directional Microphones - Applies preference to sounds in front of the wearer and reduces amplification of sound from behind the wearer. Directional microphones are a proven method of improving speech understanding in background noise.

Noise Reduction - Suppresses unwanted background noise. Background noise becomes less apparent and hearing aid wearer's listening comfort is improved.

Feedback Management - Reduces or eliminates whistling that can often occur with hearing aid use.

Multiple Programs – Allows for unique settings within the hearing aid for different listening situations.

Wind Noise Reduction - Reduces the noise created from wind blowing across the hearing aid's microphone(s).

Data Logging/Learning - The ability of the hearing aid to track and learn the hearing aid wearer's preferences in various listening environments. This information can assist the audiologist in making future programming adjustments and allows the hearing aid to adapt to the wearer's preferences.

Bluetooth Interface - Establishes a wireless connection between hearing aids and Bluetooth compatible devices. This allows the wearer to connect cell phones, MP3 players, television, and computers to their hearing aids.

These features are available in different technology levels offered by a variety of manufacturers. At ENTAA Care we work with the following manufacturers: AHS/ Interton, Bernafon, GHI, GN Resound, Oticon, Phonak, Rexton, Sebotek, Siemens, Starkey, Telex, Unitron, and Widex.

Hearing Aid Insurance Coverage

Some patients have hearing aid benefits as a part of their health insurance policy. ENTAA Care can assist you in determining if hearing aids are included in your coverage.