

Hearing aids have a long, rich history

Today's hearing aids are remarkable devices that help people who are hard of hearing in myriad ways. These devices are part of a rich history of hearing assistance items that dates back several centuries.

According to Beltone™, a developer of high-quality hearing solutions that has been in business since 1940, hearing aids can be traced all the way back to 1588, when the author Giovanni Battista first mentioned hearing assistance devices in the book, "Natural Magick." The devices Battista described were wooden and were carved into the shapes of ears belonging to animals with superior hearing. Whether they worked or not, these rudimentary devices serve as ancestors to the devices people use today.

Many people might recognize the hearing aids used in the 1600s and 1700s. Often referred to as "ear trumpets," these devices were wide at one end to gather sound and narrow at the other end so amplified sound could be directed into the ear. Perhaps the most notable user of ear trumpets was the great composer Ludwig van Beethoven, whose hearing began to deteriorate by the time he reached his late 20s. By the time of his death in 1827, Beethoven was almost completely deaf. According to the House Providence Hearing Health Centers, the first person to commercially produce ear trumpets was London-based Frederick C. Rein, who began producing the devices in 1800. In 1819, Rein was commissioned to design a special acoustic chair for John VI, the King of Portugal.

By the early 1900s, electricity would change hearing aids forever. Instead of ear trumpets, which shrunk in size over the course of the 1800s, people who were hard of hearing in the early 1900s could now use devices that employed carbon microphones and batteries to electronically amplify sound. These devices, which were worn around the neck, might have been an improvement over ear trumpets, but they were large boxes that contained visible wires. In addition, their batteries typically lasted just a few hours. Miniaturized batteries made these devices considerably less cumbersome.

Hearing aids changed again in the 1950s, when the invention of the transistor, a switch with both on and off settings, increased the functionality of hearing aids. Beltone even notes that transistors, perhaps most widely associated with radios, were used in hearing aids before they were used in radios. Ultimately, transistors were made of silicon, which allowed manufacturers to shrink them even further, allowing users to wear them behind the ear, in the ear shell and then even within the ear canal.

Digital technology changed hearing aids once again in the late 20th century, making it possible to amplify, reduce, filter, and direct sound as needed. This customization made it possible for users to alter their hearing aids depending on where they were at a given time.

Modern hearing aids are often so small that they go unnoticed. But these devices are part of a rich history dating back several centuries

Hearing Aids Do Help!

People often feel they are alone in their frustrations with not understanding. I see people in my office every day that are having trouble understanding, especially in a crowd. We talk about their hearing and hearing aids and make adjustments to their hearing aids to help in difficult listening situations. Hearing is complex and filtering the noise from the information you want to hear is even more complex.

A question often asked is whether the newest technology is any better than the old technology at understanding in noise. Without a doubt, the technology I fit today is much better in noisy settings than the hearing aids I fit five years ago. But, hearing aids do not repair years of damage to inner hearing nerves, and your brain is not as pliable as it was when you were forty — neither is mine! For this reason, new hearing aids are better at filtering noise, but your hearing may or may not be capable of using that information.

Hearing involves a series of processes, all of which are probably compromised to some degree after forty years old. Sound travels into the ear canal, vibrates the eardrum, moves the bones in the middle ear, creates waves in the fluid in the inner ear, stimulates movement of the tiny hair cells of the cochlea, creates electrical impulses through the eighth cranial nerve, interacts with the impulses from the other side, and stimulates specific areas of the primary auditory cortex of the brain. Any disruption in any part of this process can create less than perfect understanding---and that is assuming the person you are talking to is not mumbling!

So why even try? Hearing aids do help! They provide an increase in volume that is required for most hearing losses. They also "shape" the sound frequencies that you are receiving to provide more usable information. For example, if sound is amplified too much in the low frequency range, it creates "upward masking", this means that the low frequencies actually interfere with the high frequencies and make it more difficult to understand.

Hearing aids also compensate for some negative effects of hearing loss. Some people actually become more sensitive to loud sounds when they have hearing damage, and today's hearing aids automatically "dampen" loud sounds. Some advanced hearing systems also focus on speech in settings with non-speech noise and amplify the speech above the noise. Technology is continually being adapted to benefit the specific needs of patients with hearing loss.

The only way to really know about your hearing and whether or not hearing aids will help you is to have a hearing check. King Hearing Center is located in Lubbock at 2821 74th St., where our office has been in the same location since 1984. Randall King is the owner of King Hearing Center and a Board Certified Hearing Instrument Specialist.

He has worked with hearing loss for more than 29 years. He has tested hearing throughout West Texas, trained several specialists in hearing aid sciences and fit thousands of hearing aids. Call for your personal consultation with Randall at (806) 745-7878.



King Hearing Center 745-7878

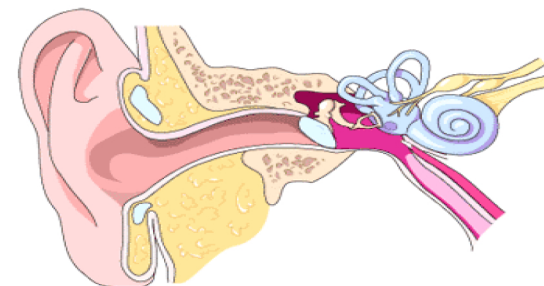


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people to hear better for 31
years and in the same
location the whole time!