

Hearing Associates
250 South Crescent Drive, Suite 100
Mason City, IA 50401



Inside this issue

4 Benefits of Watching Shows & Movies with Subtitles

How Does Hearing Work?

What is Sensorineural Hearing Loss?

Are There Different Types of Earplugs?



Summer 2023

**Hear in the
Now News**

Providing excellent customer service & quality hearing aids to our patients since 1987. Hearing Associates, P.C. is your hearing healthcare expert in Mason City, Northern Iowa, and Albert Lea, Minnesota.



**Hear in the Now
Announcements**

Hearing Associates Summer 2023 Newsletter

The Hearing Associates team has been busy with volunteering, and we're proud to share the results of their hard work and raise awareness for these important causes.

Making a House a Home

The entire Hearing Associates team showed up to help Habitat for Humanity of North Central Iowa prime an entire house for a new homeowner. That included removing old flooring, painting, and cleaning up the yard.

We're proud to partner with local nonprofit organizations that serve our community members and look forward to participating in future projects.



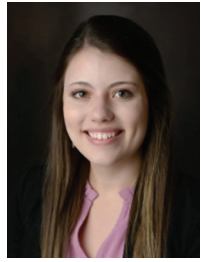
Raising Money to Give the Gift of Reading



We're excited to announce that our patients helped us raise \$7,500 for Dolly Parton's Imagination Library. Hearing Associates donated \$20 for every patient who got their hearing tested during April and May.

During those months, we also donated a portion of all hearing aid sales to support the organization's cause of gifting free books to children from birth to five years old.

Our team has helped raise thousands of dollars for various charitable organizations, and we look forward to partnering with more local charities in the near future.



Wishing Breanna Well

Hearing Aid Specialist Breanna Billings is on the next phase of her journey in pursuing an education in audiology. Breanna's last day at Hearing Associates was June 30. While we're sad to see her go, we're also very excited for her to start her new adventure. Here's what she had to say:

This fall I attend the University of Texas at Dallas to pursue my doctorate in audiology. Although I don't know which aspect of audiology intrigues me most, I'm beyond excited to dedicate myself to the field and learn all I can to provide the best care to my patients. While I'm ready for this next chapter in my life, I'm sad to be leaving my patients and such a great team that's provided many friendships. Thank you from the bottom of my heart to everyone for the continuous guidance and support that you've provided me during my time at Hearing Associates.

4 Benefits of Watching Shows & Movies with Subtitles

Whether you have hearing loss or not, subtitles can help you enjoy your viewing experience. Find out why we all need subtitles.

#1 Better Speech Comprehension

An actor's performance and manner of speaking or the audio mixing quality can negatively affect your perception of what they're saying. It could also be difficult to hear dialogue over the musical score and special effects. Using subtitles allows your brain to connect sounds with written words, improving your speech comprehension.

#2 Context Clues and Clarity

The way a person says something influences how you interpret a scene, which is why you need context. Closed captions often use descriptions and adjectives to convey how something is said. They also provide explanations of background sounds and effects to help you get a sense of how a show or movie feels.

#3 Improved Literacy

It can take time to relearn the sounds you've been missing. Subtitles can improve your understanding of the pronunciation of words and help you differentiate sounds, especially consonants.

#4 Access to More Films and Shows

Subtitles allow you to explore the wide world of cinema through translation. They're also helpful if you're learning to speak a foreign language, so you can read what's being said with context to understand the use of speech.

How Does Hearing Work?

Your ears collect and send sounds from your outer ear to your inner ear. The hearing process has several steps that use parts of your auditory system to interpret your listening environment.

How Sound Travels Through Your Ears

Outer ear: Your outer ear includes your pinna and ear canal. As sound waves travel through the air, those structures collect and funnel them into your middle ear.

Middle ear: Your middle ear includes your tympanic membrane, or eardrum and three bones called the ossicles. Sound waves are changed into vibrations in your eardrum, amplified by the ossicles and sent to your inner ear.

Inner ear: Your inner ear has three fluid-filled chambers. Sound vibrations create ripples in the fluid, stimulating tiny cells called stereocilia. Those structures convert vibrations into electrical signals.

Sounds and Your Auditory Nervous System

The electrical signals travel along your auditory nerve to your brain. The lower part of your brain stem sends electrical signals to your auditory cortex for interpretation. Auditory perception allows you to identify and interpret sounds.

How to Prevent Hearing Loss

Your hearing can be damaged by exposure to loud sounds over 85 decibels. Those noises include lawnmowers, heavy traffic, jackhammers, fireworks and jet engines. Other common hearing loss causes include excess earwax, age-related hearing loss, ear infections, head or ear injuries and ototoxic drugs.

These preventative measures can help you protect your hearing:

- Limit your exposure to loud sounds.
- Wear hearing protection in noisy environments.
- Only use earbuds at 60% volume for 60 minutes.
- Check your medication for ototoxic side effects.
- Don't stick objects in your ears.
- Visit an audiologist to get your hearing tested.

The Importance of Annual Hearing Tests

It's important to have an annual hearing test, especially if you wear a hearing aid. Your hearing changes, directly impacting the effectiveness of your devices. Yearly hearing testing establishes benchmarks for your hearing for comparisons with future test results.

You'll listen to sounds and tones at different volumes and pitches to identify your type and degree of hearing loss. Based on those results, your audiologist will prescribe an effective treatment plan and program hearing aids to meet your needs.

What is Sensorineural Hearing Loss?

It's a type of hearing loss categorized by problems with the inner ear and can affect people of all ages.

Causes of Sensorineural Hearing Loss

The tiny hair-like cells in the cochlea called stereocilia convert sound vibrations to electrical signals for your brain's auditory cortex.

Sensorineural hearing loss occurs when any part of your inner ear, particularly the stereocilia, is damaged. It can be genetic or acquired over time from exposure.

Eight common causes of sensorineural hearing loss include:

- Aging
- Short- or long-term exposure to loud sounds
- Birth defects
- Head trauma
- Ototoxic medications
- Reduced blood flow to the inner ear
- Tumors
- Ear infections

Types of Sensorineural Hearing Loss

Unilateral hearing loss: This is categorized by hearing loss in one ear.

Bilateral hearing loss: This condition presents hearing loss in both ears.

Asymmetrical hearing loss: You have hearing loss in both ears, but one is worse.

Bilateral progressive hearing loss: Both ears develop hearing loss over time due to the immune system attacking the inner ear.

Sudden sensorineural hearing loss: A loss of 30 decibels or more may happen suddenly or within a few days and requires immediate medical attention.

Symptoms of Sensorineural Hearing Loss

Sounds seem muffled, especially in noisy environments such as restaurants. Differentiating speech from background sounds becomes difficult, and you might feel mentally fatigued after socializing.

High frequencies are often the first types of sounds affected by sensorineural hearing loss, so you may struggle to hear women's and children's voices.

Other symptoms include:

- Trouble differentiating consonant sounds
- Turning up the volume on the TV or radio
- Frequently asking others to repeat themselves
- Withdrawing from social situations

How is Sensorineural Hearing Loss Treated?

An audiologist will conduct a physical exam to determine if blockages or infections are affecting your hearing. A diagnosis requires a hearing evaluation in which you identify different sounds and tones in each ear.

That test produces an audiogram that pinpoints the frequencies you can't hear. You may require medication to treat infections or prescription changes to eliminate ototoxicity.

Hearing aids are the most common type of treatment for sensorineural hearing loss. Your audiologist will program, test and fit prescription hearing aids based on your audiogram results to amplify and clarify the frequencies you struggle to hear. If your sensorineural hearing loss is profound, you may need cochlear implants, which bypass the damaged stereocilia and directly stimulate your inner ear.

Are There Different Types of Earplugs?

Yes, and each style is suitable for various applications.

Why Should I Wear Earplugs?

Noise-induced hearing loss (NIHL) can occur slowly over time or after a single exposure to loud sounds. Once the stereocilia in your inner ear are damaged, they can't be repaired, which is why protecting your hearing is so important.

When Should I Wear Earplugs?

Any sound over 85 decibels may cause permanent hearing damage.

Common sources of sounds exceeding that threshold include:

- Lawnmowers
- Chainsaws
- Restaurant noise
- Sporting events
- Heavy traffic
- Concerts
- Leaf blowers
- Sirens

Common Types of Earplugs

Disposable Foam Earplugs
Single-use foam plugs must be rolled to conform to your ear canal. They come in various shapes and offer the highest noise reduction rating (NRR) of 33. They can be worn almost anywhere, except while swimming and bathing. You'll need additional hearing protection if you use foam earplugs at a gun range.

Pre-Molded Earplugs
These earplugs are made from silicone, rubber or plastic and have a semi-rigid stem and flexible domes. The domes create a water-tight seal around your ear canal and offer a 20 to 28 NRR. Pre-molded earplugs protect your ears while swimming, flying and attending loud events. They are reusable but require regular cleaning.

Airplane Earplugs
Earplugs can ease airplane ear during flight. Their ceramic filter regulates pressure changes in your ear canal, easing discomfort during takeoff and landing. You can wear airplane earplugs throughout your flight to block ambient sound too.

Silicon Putty and Wax Earplugs
These two types of earplugs must be rolled into balls before being placed over your ear canal. Don't put silicon putty or wax earplugs inside your ear canal because pieces could get stuck. Both styles offer an NRR of 22 to 23 and effectively block water. They're intended for single-use applications.

Musician's Earplugs
These earplugs protect musicians' ears but allow enough sound in for wearers to hear the beat. Musicians' earplugs provide consistent noise reduction across all frequencies, so one sound isn't louder than another. They have an NRR rating of 11 to 16

Custom Earplugs
Custom earplugs fit your unique ear shape and are suitable for sleep, travel, work and other applications. They're reusable, easy to clean and a good option if you have narrow or misshaped ear canals.