

RESTORING CLARITY HEARING AND UNDERSTANDING THE WORLD AROUND YOU WITH ADVANCED TREATMENT FOR HEARING LOSS

By Dr. Layne M. Garrett Audiologist



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Introduction

Hearing is fundamental to our ability to connect, engage, and thrive in the world around us. Yet, millions of people experience hearing loss, and many go untreated for years. Whether due to aging, noise exposure, genetics, or other factors, hearing loss can significantly impact daily life, from simple conversations to cognitive function and emotional well-being.

Fortunately, today's advancements in hearing technology provide better clarity, connection, and confidence than ever before. This special report explores the prevalence of hearing loss, the consequences of leaving it untreated, and the cutting-edge solutions available to restore clarity and engagement.



"Blindness separates people from things; deafness separates people from people."





The Prevalence of Hearing Loss

Hearing loss is one of the most common health conditions in the United States and worldwide. According to the National Institute on Deafness and Other Communication Disorders (NIDCD):

- Approximately **15% of American adults** (37.5 million people) report some trouble hearing.
- Nearly one in three people between ages
 65 and 74 has hearing loss, and nearly half
 of those 75 and older experience
 significant impairment.
- About **28.8 million U.S. adults** could benefit from hearing aids, yet the majority do not seek treatment.

 Hearing loss is not just a concern for older adults—younger individuals are increasingly affected due to noise exposure from workplaces, concerts, and personal listening devices.

Despite its prevalence, hearing loss remains widely underdiagnosed and untreated, leading to a range of negative health effects.

The Consequences of Untreated Hearing Loss

Many people delay addressing their hearing loss, assuming it is a minor inconvenience rather than a serious health concern. However, untreated hearing loss can lead to profound physical, cognitive, and emotional consequences.

Cognitive Decline and Dementia

One of the most alarming discoveries in medical research is the link between hearing loss and cognitive decline. Studies show that individuals with untreated hearing loss are at a **significantly higher risk for dementia**. The Lancet Commission on Dementia Prevention found that hearing loss is one of the top modifiable risk factors for dementia, accounting for **8% of total dementia cases**.

When the brain struggles to interpret sounds due to hearing impairment, it reallocates cognitive resources to compensate, which can lead to mental fatigue, memory difficulties, and a **faster decline** in cognitive abilities. Conversely, research suggests that wearing **hearing aids can slow cognitive decline** and reduce the risk of developing dementia



Increased Risk of Falls

Balance and spatial awareness rely heavily on auditory input. According to research from Johns Hopkins University, individuals with mild hearing loss are nearly **three times more likely to experience falls** than those with normal hearing. The likelihood of falling increases further as hearing loss worsens.

One likely reason for this is that hearing impairment reduces the brain's ability to detect subtle environmental cues that help maintain balance. By treating hearing loss with hearing aids, individuals can improve spatial awareness and reduce the risk of dangerous falls.

Tinnitus: Ringing in the Ears

Tinnitus—the perception of ringing, buzzing, or hissing in the ears—is often linked to hearing loss. Approximately **90% of tinnitus cases occur alongside hearing impairment.** Tinnitus can lead to sleep disturbances, anxiety, depression, and difficulty concentrating.

Tinnitus is most often the result of a 'Central Gain' in neural activity that occurs when there is a loss of proper neural stimulation from the ear (i.e. after there is damage to the hair cells and nerves connecting the ear to the brain). More simply - when the brain is not properly stimulated in individuals with hearing loss (even a mild hearing loss), the brain will increase activity to make up for the missing input. This 'Central Gain' is neurologically analogous to 'Phantom Limb' phenomenon studied in neuroscience. In cases where damage occurs to the peripheral nervous system, e.g. when a solider loses a limb in battle, the central nervous system (aka the brain) will undergo adaptive changes that can often result in the perception of pain, itching, or burning in the missing limb.



Our ears do not have traditional 'pain receptors', rather the perception of 'pain' that results from damage to the hair cells and nerves of the auditory system are perceived as a 'phantom sound' (i.e. tinnitus). As the brain tries to adapt to the lack of proper stimulation from the ears, it will begin to experience a gain of activity that results in our perception of sound.

Fortunately, modern hearing aids are equipped to not only **restore missing stimulation**, but also with with tinnitus management features, such as sound masking and therapy programs, that help reduce the perception of tinnitus and improve quality of life.



Social Isolation and Emotional Health

Hearing loss significantly affects social interactions. often leading to frustration. withdrawal embarrassment. and from conversations. Individuals with untreated hearing loss frequently report feeling left out, misunderstood, or disconnected from family and friends. Over time, this isolation can contribute depression, to anxiety, and loneliness.

By improving hearing clarity, hearing aids individuals help stav engaged in conversations. participate social in activities, and maintain meaningful relationships. Restoring the ability to hear well is directly linked to improved mental and emotional well-being.



Advancements in Hearing Testing

The good news is that methods and technology for treating hearing loss have evolved dramatically in recent years. We've come a long way from the days where we simply performed a hear-the-beep-raiseyour-hand hearing test of years past.

You have many options for treating your hearing loss from do-it-yourself solutions that you purchase over-the-counter to fullservice professional clinics with expertise to help you get the care you deserve. Here are a few things to consider in making that choice.

The Importance of a Professional Hearing Exam

On average, it takes people with hearing loss **7-10 years** from when they first notice a symptom to when they seek help. Why? In general, hearing loss occurs so slowly that the person experiencing it gets used to life with decreased hearing and doesn't know how bad it has become. It is often **family members who insist on a hearing exam** and often patients are suprised when they are told the extent of their hearing loss. Besides this, hearing can be impaired by **ear wax build up**, by physiological malfunction, and by other medical conditions. For these reasons, it is very important to have your hearing tested by a **qualified professional.**



Best Practices In A Hearing Exam

A simple audiogram or online hearing test is not sufficient to gain the information necessary to treat hearing loss in an optimal fashion. The best practices for medically diagnosing and treating hearing loss include:

• Health history to determine genetic propensity for hearing loss as well as comorbidities like diabetes, heart disease, and other contributing factors.

- Otoscopic examination to rule out ear wax
 and broken eardrums
- **Tympanometry** to determine the functionality of the eardrum, and surrounding hearing organs
- **Otoacoustic Emissions** to determine the functionality of the inner ear and cochlea
- **Pure tone audiometry** to allow us to know the degree of your hearing loss by testing the sensitivity of your ears to different sounds.
- Word Recognition to test the cognitive parts of your auditory system and establish your clarity score.
- QuickSIN to measure how much difficulty you have understanding in background noise
- Bone Conduction to verify that the area behind the eardrum is not adding to your hearing loss
- **Cognivue** to screen for how well your brain is processing information beyond the auditory system.



Advancements in Hearing Technology

Everyone remembers those big "beige banana" hearing aids their great-grandmother wore that squealed constantly and didn't really help her to hear better. Fortunately, hearing technology has evolved dramatically in recent years. Today's solutions provide unmatched clarity, comfort, and connectivity, making them a powerful tool for overcoming hearing loss



Hear Clearer, Not Louder

Modern hearing technology utilizes advanced signal processina and artificial diaital intelligence to enhance speech while reducing background noise. Features like directional microphones, adaptive noise reduction, and real-time sound processing make it easier to hear conversations in noisy environments like restaurants, meetings, and family gatherings.

Rechargeable Designs

Gone are the days when your hearing device runs out of batteries while sitting in a meeting or at church. Now, most devices are rechargeable, eliminating the need for frequent battery changes.

Seamless Bluetooth Connectivity

One of the most exciting advancements in hearing aid technology is **direct Bluetooth streaming**. Many hearing aids now allow users to stream phone calls, music, and TV audio **directly to their devices**, making communication and entertainment more accessible than ever.

AI-Driven Personalization

Artificial intelligence (AI) has transformed the way hearing aids adjust to individual needs. Smart hearing aids can learn user preferences and automatically adjust settings based on the listening environment. Deep neural networks in some devices allow the device to infer the intent of the wearer and optimize the sound accordingly, giving people a much more natural listening experience no matter what environment they are in.

Tinnitus Management and Brain Health Features

Innovative hearing aids offer integrated **tinnitus therapy**, using masking sounds and customizable relief programs to reduce tinnitus symptoms. Some hearing aids also track brain and body activity, encouraging cognitive stimulation and **overall wellness**.





Signs of Hearing Loss: When to Get Your Hearing Checked

Recognizing the early signs of hearing loss is crucial for timely intervention. Common indicators include:

- Frequently asking others to repeat themselves.
- **Difficulty understanding conversations**, especially in noisy environments.
- **Increasing the volume** of the TV or radio higher than others prefer.
- **Trouble hearing** high-pitched sounds like doorbells, alarms, or children's voices.
- **Ringing or buzzing** sounds in the ears (tinnitus).
- Struggling to hear on the **phone**.
- Avoiding social situations due to difficulty following conversations.

• Feeling exhausted after long conversations due to the extra effort required to listen.

If you or a loved one experiences any of these symptoms, it's advisable to schedule a professional hearing evaluation. Early detection and treatment can prevent further decline and improve quality of life.

Success Story



"Before treating my hearing loss, I couldn't distinguish from one person talking and another person talking. My social engagements were frustrating, so I just avoided them. I just stayed away and it hurt because it was with my family and I couldn't understand what they were saying.

So then a few years ago, I went and got hearing aids and all they did was amplify noise, but they didn't clarify anything. So it was just equally frustrating. So I just stayed away from all social engagements. I kind of became a hermit.

However, recently I got new hearing aids and now I have more clarity. I even played some games with my kids, I can understand them. I don't tend to move away from 'em to save my embarrassment. I hear a lot clearer. It's not amplified, it's clarified." --Jon L



Take Action for Better Hearing and Better Living

Hearing loss is far more than an inconvenience it has significant implications for physical health, mental well-being, and overall quality of life. The good news is that **treating hearing loss is easier and more effective than ever before**. With today's advanced hearing technology, individuals can enjoy **greater clarity, improved cognitive function, enhanced safety, and deeper social connections**.

If you or a loved one is experiencing hearing loss, don't wait to take action. Seeking professional evaluation and exploring modern hearing solutions can **restore your ability to hear and help you live life to the fullest**.

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American Fork 343 S 500 E American Fork, UT 84003 801-763-0724 Spanish Fork 642 E Kirby Lane #102 Spanish Fork, UT 84660 801-798-7210



Our Hearing Care Professionals Seth Austin, Levi Lundquist, Jessica Nelson, Layne Garrett