



our guide to:  
**YOUR SOUND EXPERIENCE**

# Filling the Sound Void™

## Definition of a Sound Void (noun):

- 1. A moment lacking clarity in hearing or understanding.**
- 2. An empty space in one's life caused by the absence of sound clarity.**

**Do you often hear people talking but simply have difficulty understanding them?**

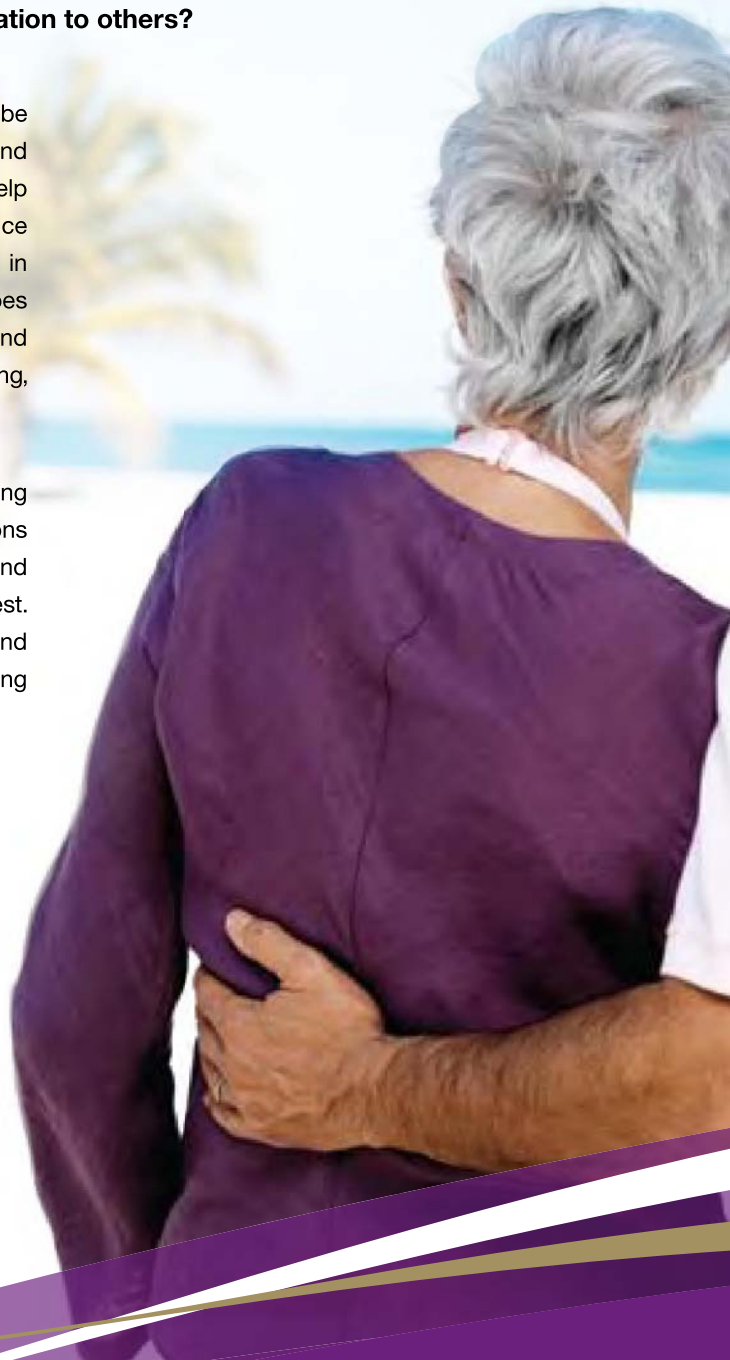
**Do you sometimes struggle to hear clearly in background noise?**

**Do you occasionally have trouble following the conversation in small groups?**

**Do you find it challenging to explain your hearing situation to others?**

If you answered “yes” to any of these questions, you may be experiencing the perception of “Sound Voids.” The term “Sound Void” was created by AudigyCertified™ professionals to help explain the “gaps” that some individuals say they experience in their day-to-day listening lives. Sound Voids usually occur in specific listening situations where an individual's hearing loss does not permit them to detect or understand important sounds and speech cues. Individuals often find that Sound Voids result in tiring, frustrating and embarrassing situations.

However you experience them—whether they happen during precious moments with your loved ones, critical conversations in the workplace, or in simple everyday interactions—Sound Voids can detract from your ability to live your life to its fullest. AudigyCertified professionals have the experience, training, and advanced technology to provide you with the best possible hearing care solutions.

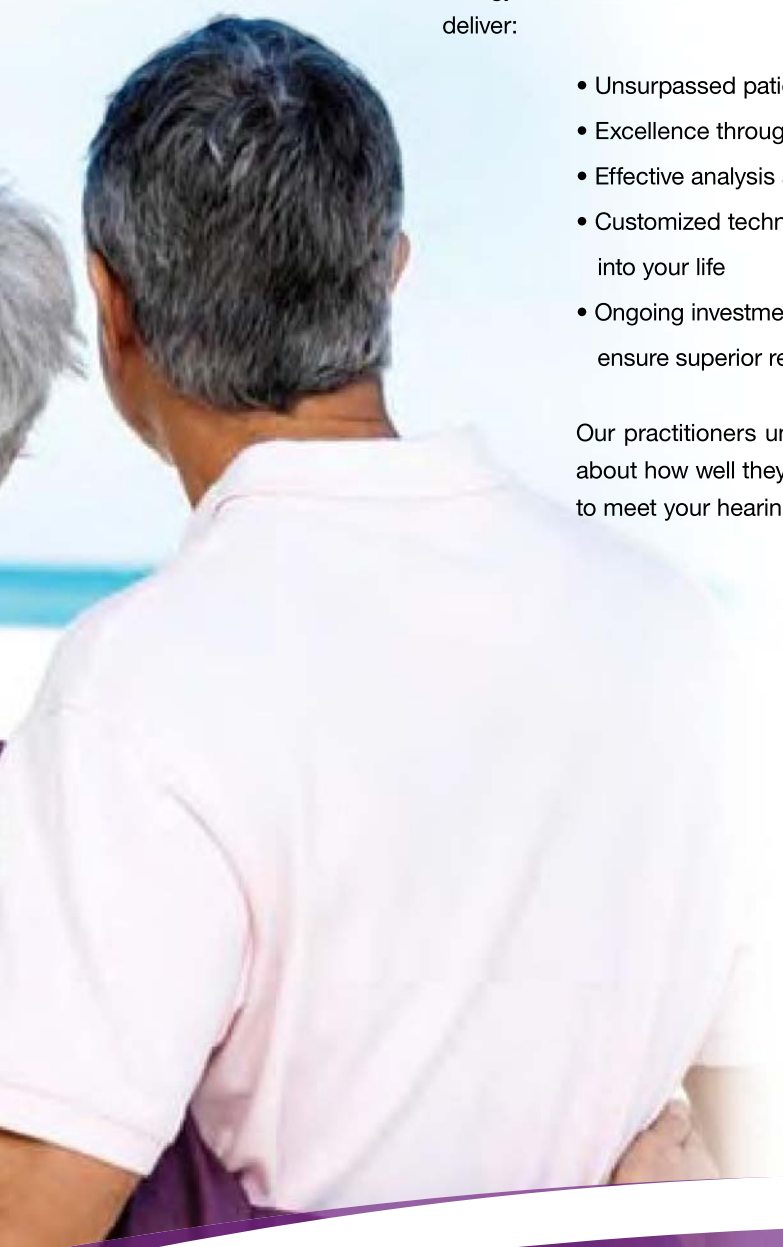


# Why Choose an AudigyCertified Professional?

AudigyCertified professionals possess the highest credentials and are among the country's most experienced practitioners of hearing and diagnostic services. We have been certified by Audigy Group, the largest Member-owned organization in the hearing care industry. Audigy Group's purpose is to strategically select and certify the most elite practitioners in each market who exemplify the core values of Audigy's mission and vision in the delivery of hearing and diagnostic services. Our shared mission is to deliver:

- Unsurpassed patient satisfaction
- Excellence through continuing education
- Effective analysis and diagnosis of your hearing loss or balance condition
- Customized technology solutions that effectively integrate speech comprehension back into your life
- Ongoing investment in the most advanced processes, procedures and technology to ensure superior results for each patient

Our practitioners understand that "value" is not measured by price alone. Rather, value is about how well they utilize their knowledge and experience to create a customized solution to meet your hearing expectations and best fit your lifestyle.





# AudigyCertified Professionals are Raising the Standards of Hearing Care Excellence.

## **Experienced Professionals.**

AudigyCertified professionals are carefully selected based on the quality of care they deliver and their proven ability to provide the highest level of patient satisfaction.

## **Expert Advice.**

Technology alone doesn't help people hear better—it's how well the practitioner works with the patient and applies the technology. That's why they invest so much of themselves in understanding their patients' expectations and making the most of AGX Series' advanced technology.

## **Extraordinary Technology.**

AudigyCertified professionals play an active role in developing AGX technology, ensuring the incorporation of the latest hardware and software advances. By bringing research and development to the hearing professional who interacts directly with the patient, we ensure cutting edge technologies and maximum benefit to the patient.

## **Excellent Service.**

Every AudigyCertified professional understands that patients don't want a hearing system. What they really want is to hear better with as little effort as possible, and the security of knowing that the professional stands behind his or her expertise and technology.

## **Exceptional Value.**

Value equates to the benefit each patient receives for his or her money. That's the only definition AudigyCertified professionals use, because it's the only one that matters to the patient. AGX technology ensures that an appropriate bundle of hearing care technology and service is available for virtually any size budget.



# Hearing Solutions...

**Your AudigyCertified Professional Can Minimize the Effects of Hearing Loss and the Perception of Sound Voids if:**

1. Your problem is correctly diagnosed;
2. You receive the right type of treatment; and
3. You and your hearing care team are committed to solving the problem.

## Step One: The Interview

**Purpose:** To determine the nature of your concern and uncover any specific areas that may require further attention.

### Some Typical Questions:

- Has anyone else in your family had hearing difficulty?
- Have you had any illnesses or injuries that might have affected your hearing?
- Have you taken any medications that might have affected your hearing?
- Have you been exposed to loud noises in your job or leisure activities?

## Step Two: The Examination

**Purpose:** To determine whether the perception of Sound Voids you are experiencing could be caused by an obstruction or damage to the ear canal or eardrum.

## Step Three: The Diagnostic Process

**Purpose:** To determine the nature of your Sound Voids. The diagnostic process may include tests like the following, depending on the assessment of your needs.

**Audiometric pure tone evaluation** to measure your hearing at different frequencies.

**Speech evaluation** to measure how well you hear and understand ordinary conversation at different volumes.

**Immittance middle ear evaluation** to measure how your eardrum reacts to varying degrees of air pressure.

## Step Four: Treatment Options

### Hearing Systems

Hearing systems come in a variety of designs and with a wide range of functions and features to address an individual's specific needs. The most basic components include a microphone, an amplifier, a receiver, and (in the case of digital hearing systems) a small computer.

### Surgery & Implants

Devices surgically inserted into the ear to improve hearing make it easier to distinguish certain sounds. These are typically most helpful to deaf or profoundly hearing-impaired people who cannot use standard hearing systems.

### Assistive Listening Devices

Specialized technologies that help people with all degrees of hearing loss. These devices can facilitate improved face-to-face communication and reception of electronic media, telephone signals and important warning sounds and situations.

Subjective:  
Self Evaluation  
& Interview

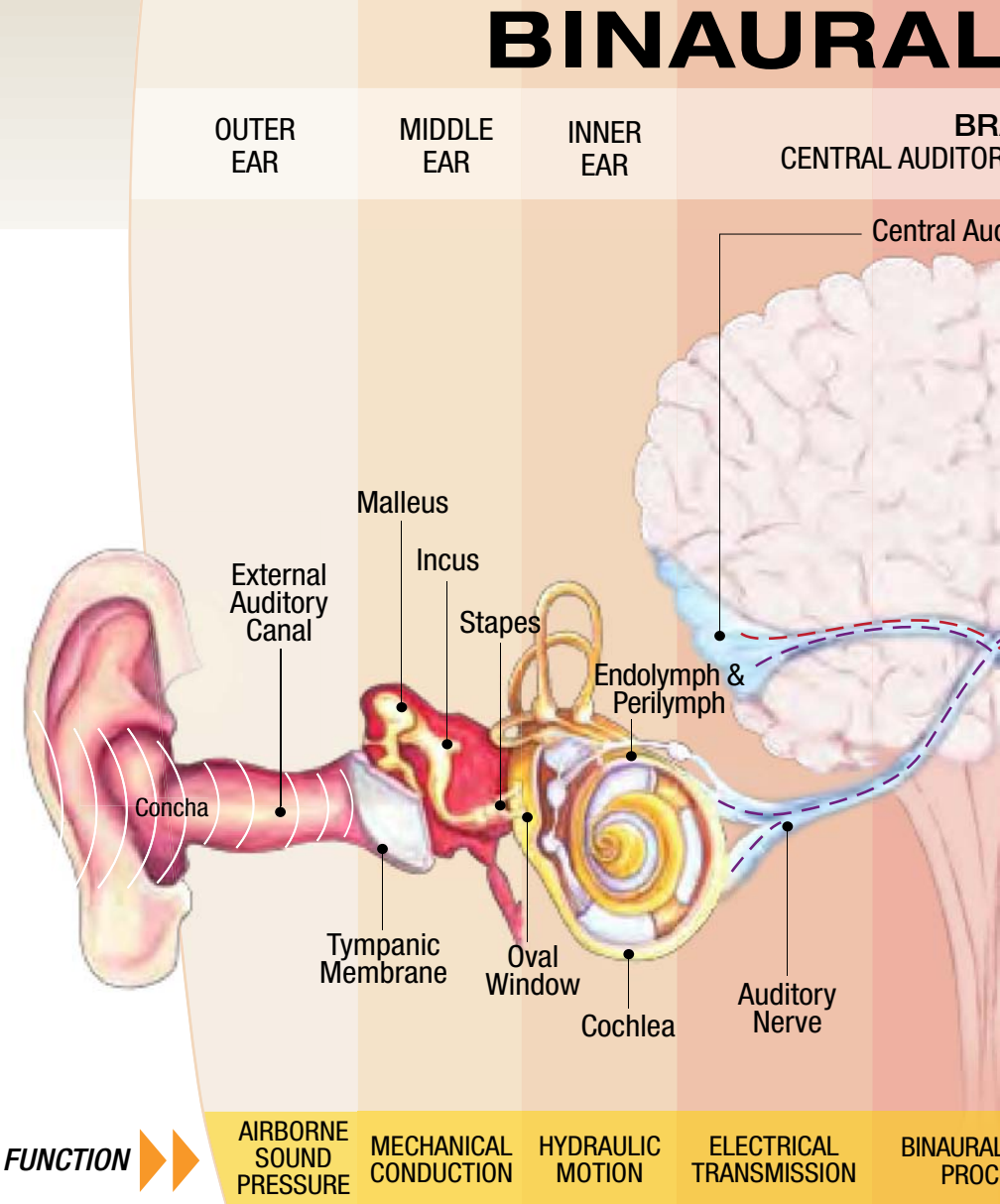
Medical Referral  
or Technology Solution

Your  
**SOUND  
EXPERIENCE**

Objective:  
Diagnostic Exams

# The Mechanics of the Ear

1. The outer ear collects sound waves and directs them into the external auditory canal.
2. The ear canal carries sound waves to the tympanic membrane (eardrum).
3. Sound waves cause the tympanic membrane to vibrate.
4. The bones in the middle ear (malleus, incus, and stapes) pick up vibrations from the tympanic membrane.
5. The bones in the middle ear amplify the sound and transmit it to the inner ear.
6. Vibrations pass through the oval window to the inner ear, setting the fluid inside the cochlea in motion. Special nerve cells (hair cells within the cochlea) then turn the sound waves into electrical impulses.
7. The auditory nerve sends these electrical impulses to the brain's central auditory cortex, where it is processed as sound.



# HEARING

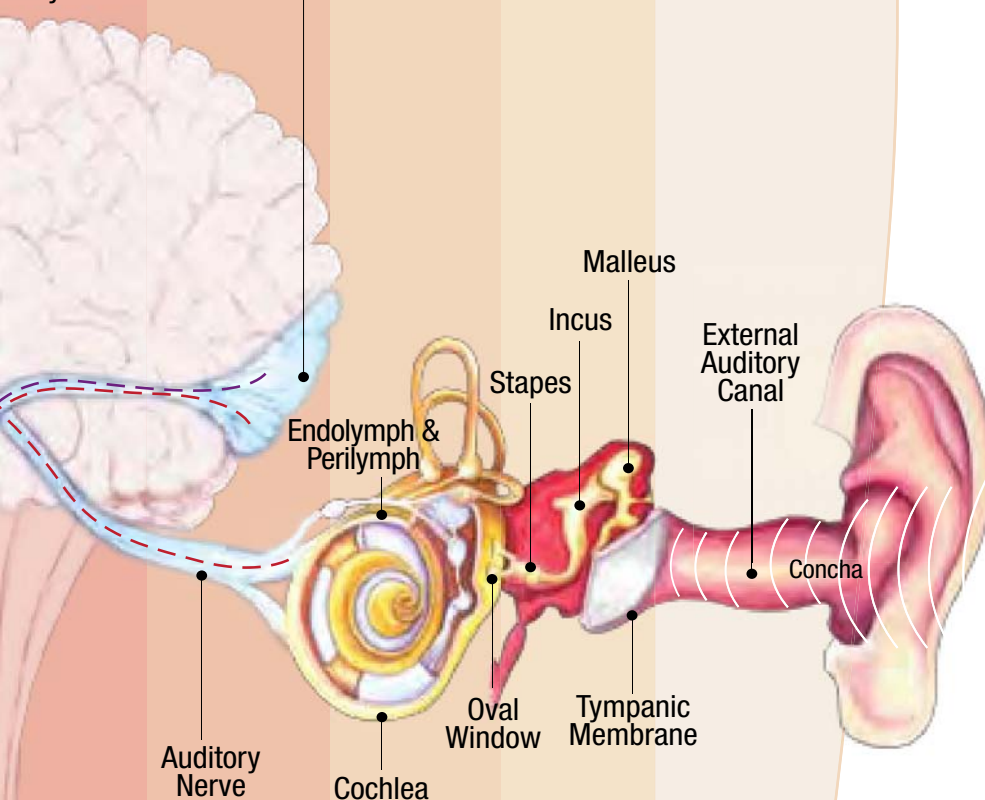
MAIN  
NERVE PATHWAY

INNER  
EAR

MIDDLE  
EAR

OUTER  
EAR

Auditory Cortex



ACQUISITION  
OF SOUND

ELECTRICAL  
TRANSMISSION

HYDRAULIC  
MOTION

MECHANICAL  
CONDUCTION

AIRBORNE  
SOUND  
PRESSURE

FUNCTION

## Binaural

**Pronounced bahy-nawr-uhl.**  
(adjective)

- a. Having or relating to two ears.
- b. Having to do with the perception of sound with both ears: binaural hearing.

If a bilateral hearing loss (present in both ears) is determined through testing and evaluation, AudigyCertified professionals highly recommend binaural amplification as opposed to monaural (single ear). Individuals with binaural fittings experience what we call an “additive” therapeutic effect where one plus one does not necessarily equal two, instead, it equals three or more because of the exponential power of having both ears work together. Most of us take the fact that we have two ears for granted. We don’t stop to think about the complexity of each one working with the other to effectively relay sounds and information to the brain.



# AGX –Which Technology Level

## Active Lifestyle



### Frequent Background Noise

Active Cell Phone Use	Diverse Restaurant Environments
Outdoor Events	Demanding Communication Requirements
Family Gatherings	Religious Services and Activities
All Television	Group Meetings or Classroom
Airports or Travel	Shopping Malls
Movies at the Theater	Concert and Musical Events
Parties or Social Events	Volunteer Activities
Frequent Driving	Noisy Work Environment

## Casual Lifestyle



### Occasional Background Noise

Quiet Restaurants	Weekly Religious Services
Small Family Groups	Occasional Telephone Use
Most Television	Moderate Communication Requirements
Home Movies	Radio and Home Music
Small Meetings	Quiet Work Environment
Quiet Shops	Occasional Driving

## Quiet Lifestyle



### Limited Background Noise

Limited Telephone Use	Occasional Television
Visitors	Limited Religious Services
Limited Shopping	Limited Music
One-on-one Conversations	

## Very Quiet Lifestyle



### Rare Background Noise

Limited Visitors
Infrequent Television
Small Religious Services
Rare Telephone Use



# Level Best Suits Your Lifestyle?

**AGX<sup>9</sup>**  
Premium Technology

**AGX<sup>7</sup>**  
Advanced Technology

**AGX<sup>5</sup>**  
Mid-Level Technology

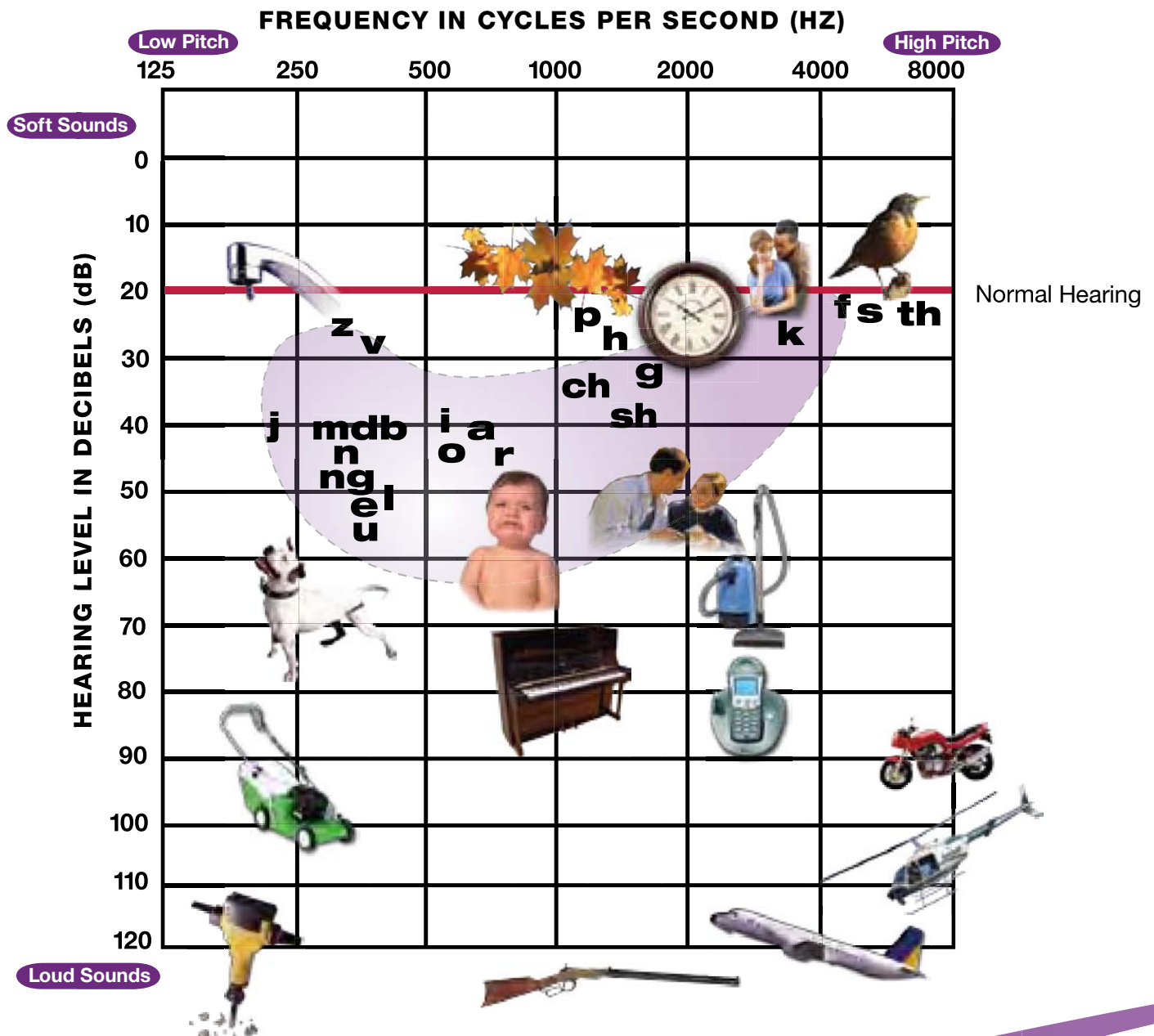
**AGX<sup>3</sup>**  
Entry-Level Technology

# Audiogram of Familiar Sounds

Your AudigyCertified professional will use an audiogram to chart the results of your hearing test. An audiogram illustrates a person's hearing loss, frequency by frequency. The sample audiogram on this page has been filled in with illustrations to show where common sounds and parts of speech fit in. The purple shaded area on the audiogram shows the pitch and loudness where most common speech sounds occur.

## Degrees of Hearing Loss

Type of Hearing Loss	Lowest Intensity of Sound Heard
Normal range or no impairment	0 dB to 20 dB
Mild Loss	21 dB to 40 dB
Moderate Loss	41 dB to 60 dB
Severe Loss	61 dB to 90 dB
Profound Loss	91 dB or more



Word Recognition Score: \_\_\_\_\_

# Hearing Loss Affects More Than You Think

## Defining Sound

Sound is measured by intensity and pitch. Intensity is the loudness of sound, which is measured in decibels. Pitch is measured in frequency of sound vibrations per second. A deep voice has a low pitch and frequency, whereas, a child's voice has a high pitch and frequency.

Higher frequencies are usually affected in the first stages of hearing loss. As a result, difficulty hearing the high-pitched voices of women and children is one of the first noticeable symptoms. People with hearing loss often have difficulty differentiating words that sound alike, especially words that contain S, F, SH, CH, H, TH, T, K or soft C sounds. These consonants are in a much higher frequency range than vowels and other consonants.

## Degrees of Hearing Loss

Gradual hearing loss and the perception of Sound Voids are common conditions. They often occur as a result of years of chronic exposure to loud noise. Other causes include illness, reactions to ototoxic medications, earwax blockage, heredity and the natural aging process. In the United States, approximately one-third of individuals over 60 years of age, and one-half of those over 85, has some degree of hearing loss.

## Unique Characteristics of Sound and Hearing

### 1. Hearing is a critical part of your personal safety and early warning system.

Your hearing is unique in that it can process sound in the background without you concentrating on the source that produces it. If you are experiencing the perception of Sound Voids, you may be missing important signs of danger or opportunity.

### 2. Hearing enhances the performance of your other senses.

If you are experiencing the perception of Sound Voids, some of your other senses may not be working as well as they should.

### 3. Hearing is an important part of your personal learning system.

Your hearing provides critical supplemental information and aids retention. If you are experiencing the perception of Sound Voids, you may not be learning new things as quickly, easily, or completely as you should.

### 4. Hearing is your most important "Social Sense".

Your hearing is how you connect with the important people in your life. If you are experiencing the perception of Sound Voids, you may be missing out on important relationships and shared experiences.

## Commonly Misunderstood Words

People with a hearing loss typically miss the beginning and end of words because that is where the consonants are. Because of this, some words are easily mistaken for others. Here are a few examples:

*Rose sounds like Road*

*Catch sounds like Cat*

*Hit sounds like Sit*

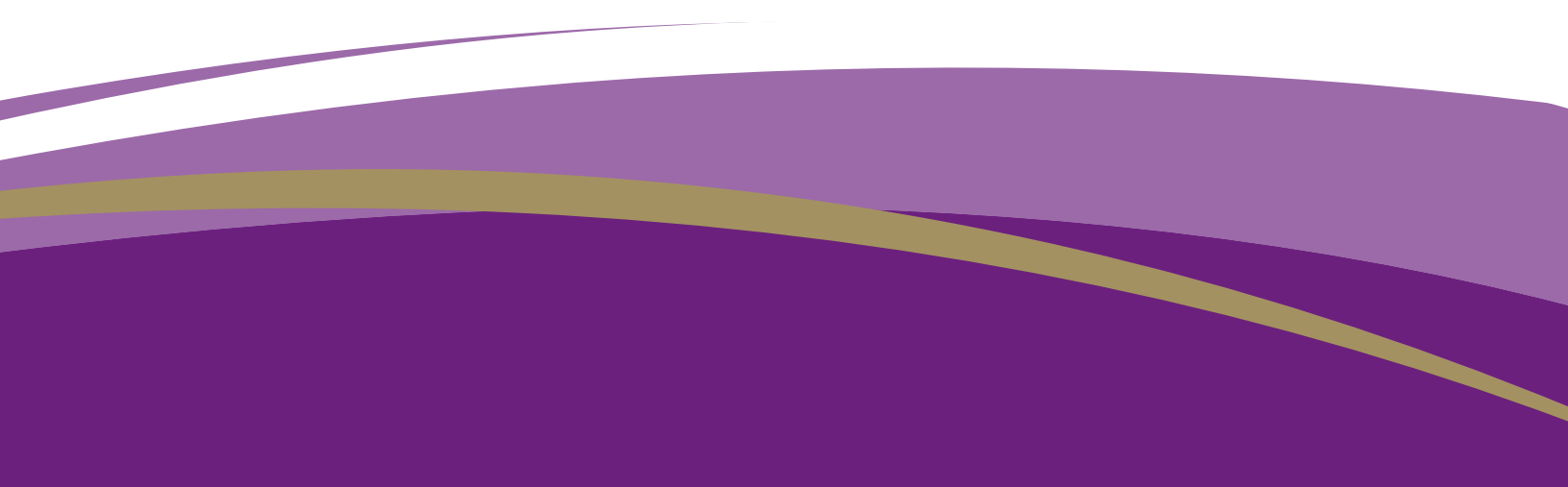
*Lease sounds like Leaf*

*Pass sounds like Path*

*Thumb sounds like Dumb*

*Wife sounds like White*

*Vote sounds like Boat*



# What Goes on After I Have Been Fitted with Hearing Technology?

## Follow-up Appointments

After you have been fitted with technology your AudigyCertified professional will be available for any adjustments you may need. To ensure your new hearing technology is functioning properly, a follow-up appointment will be scheduled within 1-2 weeks of your fitting. At this appointment adjustments could be made to your instruments to further improve your hearing abilities in the situations important to you.

## Rehabilitation

It is important to participate in the recommended rehabilitation program to ensure you are able to hear and understand as much as possible. These programs could include aural rehabilitation, lip reading, communication enhancement and speech therapy. Combining a rehabilitation program with your new hearing system will ensure the best possible integration of the technology into your life and maximize the value of your investment in better hearing.

## Cleaning and Check-up Appointments

To ensure your hearing technology is functioning at its best we offer complimentary cleaning and check-ups of your system. We recommend you utilize this service every 3-4 months for maximum benefit.

## Technology Verification

For most patients hearing loss is a gradual process. This could mean that hearing ability and speech comprehension are still affected while utilizing hearing technology. Because of this, it is important that your hearing loss is monitored to ensure the technology is meeting your needs. We recommend visiting us annually for this verification.

## Technology Adjustments

As you begin using hearing technology, adjustments could be necessary. Depending on your primary environments, different programs could need to be updated and adjusted to meet your needs. Remember, these adjustments are normal and complimentary.





# An Ounce of Prevention

Avoiding loud noise may help prevent premature hearing loss and the perception of Sound Voids. There are easy ways to identify if a particular sound is potentially harmful.

**Do you have difficulty talking or hearing others talk over the sound?**

**Does the sound make your ears hurt?**

**Do your ears ring after hearing the sound?**

**Do other sounds seem muffled after exposure?**

**If you answered “yes” to any of these questions, the noise may be damaging your hearing.**

Most people don’t realize how loud everyday sounds actually are. Sounds above 85 dB are harmful, depending on how long and how often you are exposed to them. The louder a sound is, the lower the amount of exposure required to cause damage. If used properly, hearing protection devices can reduce the loudness of sound reaching the ears.

## How Loud Are Everyday Sounds?

The table below identifies decibel levels for common noises. How often and for how long have you been exposed to 85 dB and above?

Noise	Average decibels (dB)
Leaves rustling, a whisper	20-30
A normal conversation	60
Vacuum cleaner, average radio	75
Heavy traffic, noisy restaurant	80-90 <small>*sounds above 85 dB are harmful</small>
Motorcycle, snowmobile	96-100
Chainsaw, jackhammer	106-115
Sports crowd, rock concert	120-129
Gun shot, siren at 100 feet	140

Nearly 30 million Americans are exposed to dangerous noise levels each day. With 10 million Americans suffering from irreversible hearing damage due to noise, it is never too early to start actively protecting your hearing. Remove yourself from loud settings. Turn down the radio and television. Wear earplugs if you cannot avoid loud environments. Start today.



# Ringling in your Ears?

**Are you hearing ringing, whistling, hissing, buzzing, or pulsing sounds? You may be suffering from tinnitus.**

Pronounced: tin-NIGHT-us or TIN-it-us.

## What is Tinnitus?

Tinnitus is a medical condition characterized by persistent ringing in one or both ears which can only be heard by the affected individual. It has also been described as whistling, hissing, buzzing, or pulsing in the ear. These sounds may come and go; however, most sufferers experience symptoms 24 hours a day, seven days a week. The effects range from a slight annoyance to a severe disruption of everyday life. The American Tinnitus Association estimates that over 50 million Americans suffer from tinnitus. In fact, tinnitus is the #1 complaint from United States Veterans and grows at 18% per year.

**Causes of tinnitus are varied and the condition is typically accompanied by hearing loss.**

### Causes may include:

- Noise-induced hearing loss and nerve damage
- A buildup of earwax
- Side effects of prescription and over-the-counter medications
- Ear infections or eardrum rupture
- Head and neck trauma
- Cardiovascular problems, such as hypertension

## Tinnitus Treatment

In many cases the distressing combination of tinnitus and hearing loss can be relieved with AGX hearing technology. While worn, a hearing system can restore ambient sounds and help fill Sound Voids to reduce the effects of tinnitus.

Other treatment options available through many AudigyCertified professionals include Tinnitus Retraining Therapy (TRT) and Tinnitus Retraining Instruments (TRI). TRT combines low-level, steady background noises played through a device with counseling. It “retrains” the patient’s auditory center to ignore the tinnitus. TRI’s may be used in conjunction with TRT when deemed appropriate. These instruments fit within the ear and emit a faint but audible sound that can mitigate the symptoms of tinnitus.

Although there isn’t a single cure for tinnitus, our AudigyCertified professionals are experienced at providing individual solutions on a case by case basis. If you are bothered by ringing in your ears, please schedule an appointment to discuss a solution.



# Dizzy? Loss of Balance? Vertigo? Motion Sickness?

Many people believe that loss of balance and unsteadiness are a natural result of aging. In fact, fear of falling is the number one health concern of individuals in their later years. The fear appears justified as National Institute of Health statistics indicate that balance-related falls account for half of the accidental deaths in the population over 65. In addition, nearly 300,000 hip fractures and \$3 billion dollars in medical expenses result from balance-related falls every year.

The natural aging process may affect any one or all of the senses, as well as the central nervous system's ability to interpret and react quickly to them. It is very common to hear from someone who has fallen that they saw the curb or step, but just were not able to react fast enough or to keep their balance.

With proper diagnosis and therapeutic exercises, called Balance Retraining, many older adults are able to return to a more active lifestyle.

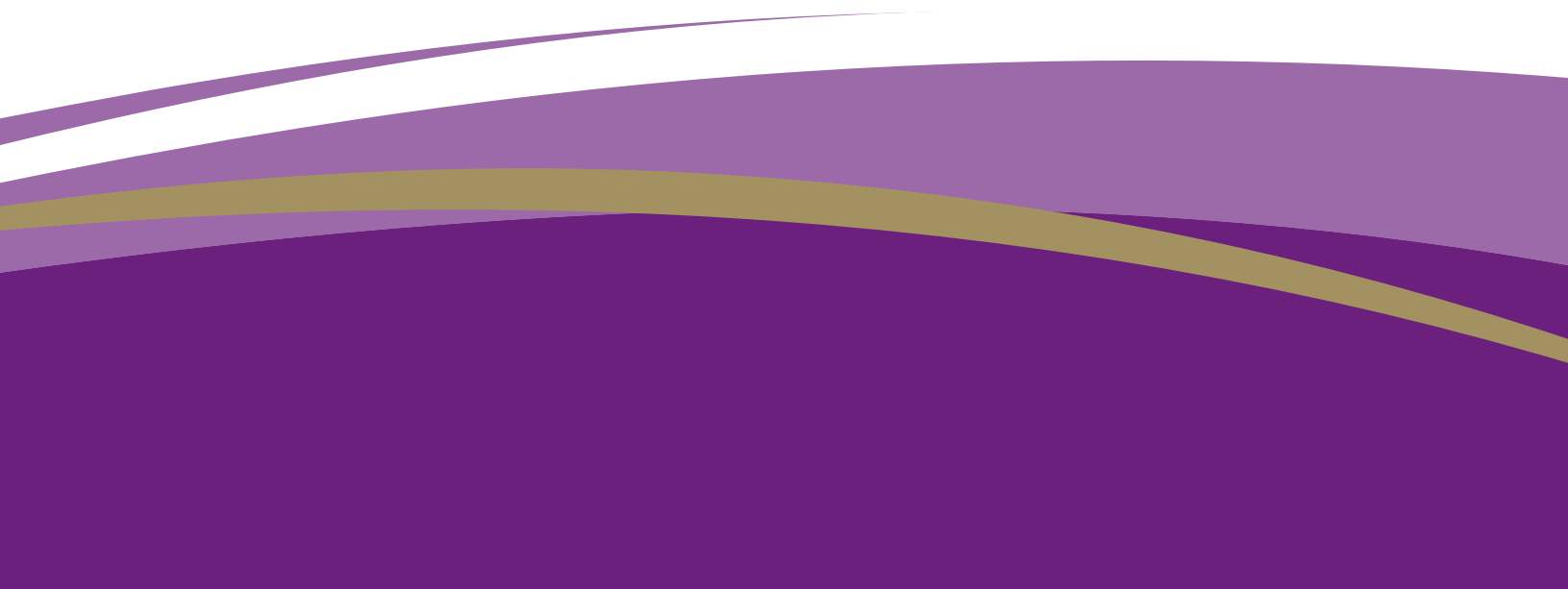
## American Institute of Balance® Patient Self Quiz

90 million Americans will experience dizziness or balance problems sometime in their lives. Listed below are common complaints or problems reported by patients.

### Have you ever felt...

- |     |                              |                             |   |
|-----|------------------------------|-----------------------------|---|
| 1.  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | A feeling of motion, spinning, or falling when moving your head quickly, or changing your position, e.g. getting in and out of bed? |
| 2.  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Uncomfortable trying to get around in the dark?   |
| 3.  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Walking down grocery store aisles or through the mall is upsetting?   |
| 4.  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Your feet just won't go where you want them to?   |
| 5.  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | A sense of unsteadiness? A feeling you are not surefooted?  |
| 6.  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | A fear of falling or stumbling?   |
| 7.  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Looking at moving objects such as escalators or looking out the side window of a car makes you queasy?                              |
| 8.  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Difficulty keeping your balance as you walk on different surfaces, e.g. tile to carpet?   |
| 9.  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | A feeling like you are drifting or being pulled to one side when walking?   |
| 10. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | No one really understands how frustrating all this is?  |

If you answered "yes" to one or more of these questions a vestibular and equilibrium evaluation by our AudigyCertified professionals should be scheduled. We have proven systems for properly evaluating and diagnosing balance conditions and ensuring the highest level of patient satisfaction possible.





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EXTRAORDINARY TECHNOLOGY ▪ EXCEPTIONAL VALUE