

# Guide to Your Hearing Health



## Hearing loss

is the 3rd most common chronic physical condition in the U.S.



## Don't suffer in silence

we've got solutions to help  
keep you connected!

# Are you having difficulty hearing?

If so, you are not alone.

An estimated **48 million** Americans – that's **15%** of the population – experience some degree of hearing loss.

Don't worry: **there are solutions** that can help you reconnect with friends and loved ones, and improve your quality of life!



**Recognizing the symptoms of hearing loss can be difficult.** It often develops so gradually that you become used to the changes in your hearing and adapt to them.

## Learn to recognize the signs:



Asking people to *repeat* themselves



Difficulty hearing over *background noise*



The feeling that people *mumble* when they speak



Turning up the volume when watching *TV*

# Who has hearing loss in America?



**1 in 3** people  
aged **65** and over



**15%** of children  
between the ages of  
**6 and 19**



**1 in 2** people  
aged **75** and over



**1 in 6**  
Baby Boomers



**2 to 3** out of every  
**1000** newborns



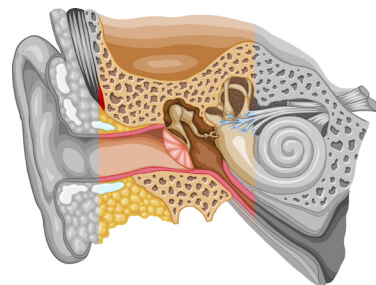
**1 in 14**  
Generation Xers



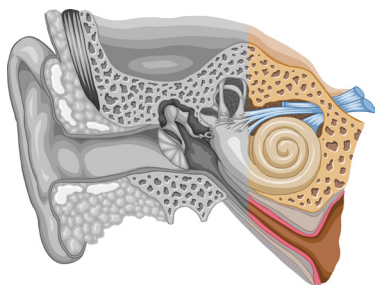
# Types of Hearing Loss

There are **three main types** of hearing loss, categorized by which part of the auditory system has been damaged.

**Conductive** hearing loss involves damage to the outer ear (ear canal, eardrum) and/or middle ear (ossicles); this prevents sound waves from being carried from the eardrum to the inner ear. This type of hearing loss can often be corrected with medication or surgery.



**Sensorineural** hearing loss, often referred to as nerve loss, occurs when there is damage to the hair cells in the cochlea of the inner ear. This type of hearing loss is almost always permanent but can usually be treated with hearing aids. Nine out of 10 patients with a hearing impairment experience sensorineural hearing loss.



**Mixed** hearing loss is a combination of both conductive and sensorineural hearing loss, and occurs when there is damage to both

the outer/middle and the inner ear. Treatment may involve a combination of medications, surgery and hearing aids.

# What Causes Hearing Loss?

Hearing loss can be caused by a variety of factors. The most common are:



## Aging

Age-related hearing loss, known as presbycusis, affects an estimated one-third of adults by the age of 65. The cumulative effects of noise exposure over a lifetime lead to a loss of hair cells in the inner ear, causing sensorineural hearing loss that interferes with high-pitched sounds in particular. Presbycusis is irreversible and ranges from mild to severe.



## Noise exposure

Noise-induced hearing loss (NIHL) is the result of damage to the hair cells of the inner ear following exposure to sounds that exceed a safe listening threshold (85 decibels). It may occur suddenly, when exposed to a particularly loud noise such as a gunshot or explosion, or gradually over an extended period of time. NIHL can be prevented through the use of hearing protection.

There are many additional causes of hearing loss. These include:

- Excess buildup of **earwax**.
- Ear infections caused by **inflammation or infection** in the outer or middle ear.
- Abnormal bone growth in the middle ear known as **otosclerosis**.
- There are more than **200 ototoxic medications**, which can cause temporary or permanent loss.
- An inner ear disorder known as **Meniere's disease**.
- A benign tumor known as an **acoustic neuroma**.
- **Trauma to the head or ears** caused by an accident or injury.



# Risks of Untreated Hearing Loss

## Increased risk

**Untreated hearing loss contributes to a number of social, psychological, mental and physical health complications.**

**Patients have an increased risk of:**

Reduced mental alertness and memory decline occur when the brain devotes energy toward processing sounds, which can lead to dementia. The more severe the hearing loss, the higher your risk; patients with mild hearing loss are twice as likely to develop dementia, while those with moderate hearing loss have three times a greater risk and those with severe hearing loss are five times more likely to develop dementia.

\*Self-Reported Hearing Loss, Hearing Aids, and Cognitive Decline in Elderly Adults: A 25-Year Study, The American Geriatrics Society, 2015

## Depression

Patients with hearing loss experience increased social withdrawal and isolation, factors that may cause depression. Thirty percent of individuals with untreated hearing loss report feeling depressed, compared with 22 percent of those who treat their impairment with hearing aids.

\*The Consequences of Untreated Hearing Loss in Older Persons, The National Council on the Aging, 1999



## Dementia



## Falls

Falls are a serious concern for the elderly, and a leading cause of injury and death in people over the age of 65. Individuals with mild hearing loss (25 decibels) are three times as likely to experience a fall; that risk increases almost one and a half times for each additional 10 decibels of hearing loss.

\*Hearing loss and falls among older adults in the United States, Archives of Internal Medicine, 2012



# A Strong Correlation

**Diabetes.** Patients with diabetes are twice as likely to suffer from hearing loss, and those with pre-diabetes have a 30 percent higher risk. Researchers theorize high glucose levels associated with diabetes can damage the blood vessels in the inner ear.

\*Diabetes and Hearing Loss, AmericanDiabetesAssociation.com, 2013

**Hypertension.** The negative effects of high blood pressure aren't limited to the cardiovascular system; patients suffering from hypertension have an increased risk of developing hearing loss and tinnitus (ringing in the ear).

\*Effects of Hypertension on Hearing, Indian Journal of Otolaryngology and Head & Neck Surgery, 2013

\*High blood pressure can lead to hearing loss, HearIt.org, 2013

**Obesity.** Obese individuals (those with a BMI of 30 or higher) are 27 percent more likely to experience hearing loss due to a reduction in blood flow to the inner ear, as well as the possibility of developing other conditions related to obesity, such as diabetes and hypertension.

\*Obesity May Be Hard on Your Hearing, WebMD.com News from HealthDay, 2013

has been found between certain health conditions and hearing loss. Hearing loss is often associated with the following:

**Cardiovascular disease.** Poor cardiovascular health damages blood vessels and leads to a reduction in blood flow to the inner ear, increasing the risk of hearing loss. Patients with a history of heart disease are 54 percent more likely to suffer from hearing loss, while those who exercise at least once a week are 32 percent less likely to suffer from hearing loss compared with sedentary individuals.

\*Does cardiovascular health mediate hearing ability? Medicine & Science in Sports & Exercise, 1994

**Sleep apnea.** Sleep apnea increases the risk of heart disease, stroke and diabetes, and leads to higher rates of hearing loss. Those who suffer from sleep apnea are 31 percent more likely to develop high frequency hearing loss and 90 percent more likely to develop low frequency hearing loss.

\*Sleep Apnea Linked to Sudden Hearing Loss, The Hearing Journal 2012

\*Sleep apnea can cause hearing loss, HearIt.org, 2015



# Improved Quality of Life

**The evidence is overwhelming:** Untreated hearing loss is associated with a variety of health complications, either directly or indirectly. On the other hand, treating your hearing loss can greatly improve your quality of life. This is the third most common physical condition in the U.S. and affects roughly 15 percent of the population.

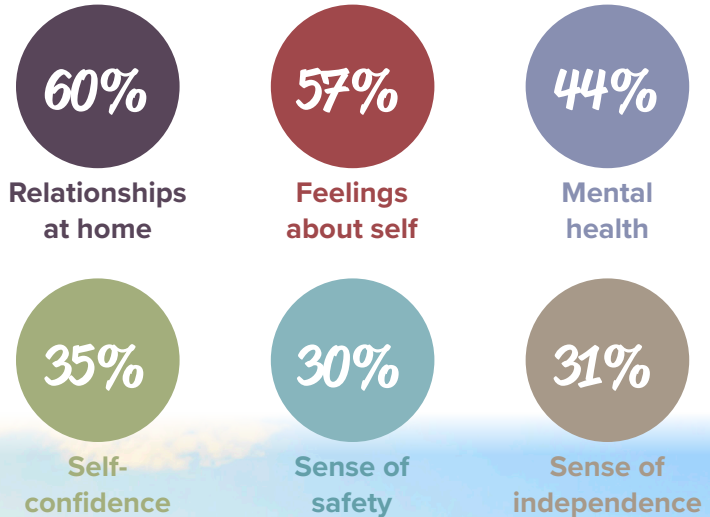


**ONLY 16 percent of physicians routinely screen for hearing loss.**

The problem? Hearing loss is an invisible condition. Many of its symptoms are attributed to confusion or personality changes. The solution? Be proactive! You already have your vision tested annually and schedule regular dental checkups. Make hearing screenings a part of your routine health care, too.

## 90 percent of individuals with hearing loss can benefit from treatment with hearing aids.

Research shows a strong correlation between hearing aid use and quality of life. Patients who treat their loss with amplification devices report significant improvements in a number of key areas, including:



Patients Report Improved Quality of Life with Hearing Aid Usage, 2011





## **PRIVATE** Lifestyle

Minimal Background Noise

- Quiet Conversation
- Doorbell
- Phone Ringing
- Alarms  
(Clock, Security, Timers, etc.)



## **QUIET** Lifestyle

Occasional Background Noise

- Home Telephone
- Driving
- Religious Services
- Adult Conversations
- Small Family Gatherings
- Quiet Restaurants



## **ACTIVE** Lifestyle

Moderate Background Noise

- Cellphones
- Shopping
- Movie Theaters
- Health Clubs
- Small Group Meetings
- Conversations with Children
- Television
- Open/Reverberant Home
- iPod®/Personal Music Players



## **DYNAMIC** Lifestyle

Frequent Background Noise

- Outdoor Activities
- Entertainment Venues  
(Casinos, Exhibit Halls, etc.)
- Busy Restaurants
- Frequent Social Gatherings
- Smartphones
- Conference Calls
- Multimedia Connectivity  
(Computer, Phone, etc.)
- Travel & Airports
- Concerts & Arts
- Group Presentations

# Everybody's hearing loss is unique

We encourage you to call your hearing health specialist to schedule a one-on-one consultation and determine the treatment plan that is best for your individual needs.



## MEDICAL-BASED HEARING CARE

Houston Hearing Center has eight locations throughout the greater Houston area. Our audiologists work in conjunction with the physicians at Houston Ear, Nose, Throat & Allergy to provide superior hearing and balance care with individualized treatment plans. This multidisciplinary approach means our patients can seamlessly receive both medical and audiological care.

**Call 281-699-5609 to schedule an appointment.**

## Hearing Center Locations

### CLEAR LAKE

11454 Space Center Blvd., Suite B  
Houston, TX 77059

### KATY

18300 Katy Fwy., Suite 605  
Houston, TX 77094

### KINGWOOD

22999 US-59, Bldg. B, Suite 400  
Kingwood, TX 77339

### MEMORIAL CITY

915 Gessner Rd., Suite 280  
Houston, TX 77024

### SOUTHEAST

11914 Astoria Blvd., Suite 360  
Houston, TX 77089

### SOUTHWEST

7789 Southwest Fwy., Suite 470  
Houston, TX 77074

### SUGAR LAND

16545 Southwest Fwy., Suite 100  
Sugar Land, TX 77479

### WILLOWBROOK

18220 Tomball Pkwy., Suite 155  
Houston, TX 77070