

About Hearing Loss

Hearing loss is more common than you might think. In North America, 10% of the population, 30 million people, have some type of hearing loss. Because we communicate by speaking and listening to one another, someone whose



hearing loss is left untreated will experience problems in their day-to-day life. Many adults do not realize how much hearing they have lost. Often family members and friends see changes in their behavior. A study done in 1999 by the National Council on Aging documented the affects of untreated hearing loss. Those adults whose hearing loss went untreated reported sadness, depression, worry, anxiety. They were less active socially and felt insecure.

Adults who have treated their hearing loss report better relationships with family, better self esteem, improved mental health and greater independence and freedom.

Signs of Hearing Loss

Hearing Loss is an invisible problem. Most hearing losses occur gradually, so the signs of hearing loss are difficult to notice.

- Family complains the TV or radio is too loud
- People seem to mumble when they speak
- You can hear people speaking but can't quite understand what they are saying
- You ask people to repeat what they say
- You have a hard time understanding conversation in a group or party
- You have ringing in your ears
- It is difficult to hear on the phone

Causes of Hearing Loss

There are many different causes of hearing loss which can affect all ages. Some common causes are:

- Hereditary
- Trauma
- Ear infections of fluid in the middle ear
- Noise exposure
- Aging process
- Illness
- Ototoxic medications
- Tumors
- Earwax

Anatomy of the Ear

There are three main parts of the ear:

- The **outer ear** includes the pinna and the ear canal.
- The **middle ear** includes the eardrum and the three bones commonly called the hammer, anvil, and the stirrup suspended in an air-filled cavity.
- The **inner ear** or cochlea includes the nerve endings that allow us to hear and the organ of balance.

Types of Hearing Loss

Hearing is a complex process. As with any such process, a lot of things can go wrong. Here are the most common types of hearing loss:



- **Sensorineural loss** occurs when the nerve endings in the inner ear are not transmitting sound properly. About ninety percent of all hearing loss is sensorineural. Causes can be exposure to loud noise, trauma, the normal aging process and disease.
- **Conductive hearing loss** means sound is not traveling through the eardrum or earbones properly. Causes can be wax build up, a perforated eardrum, fluid in the middle ear or damaged bones in the middle ear.
- **Mixed hearing loss** is a combination of conductive and sensorineural hearing loss.

Hearing Tests

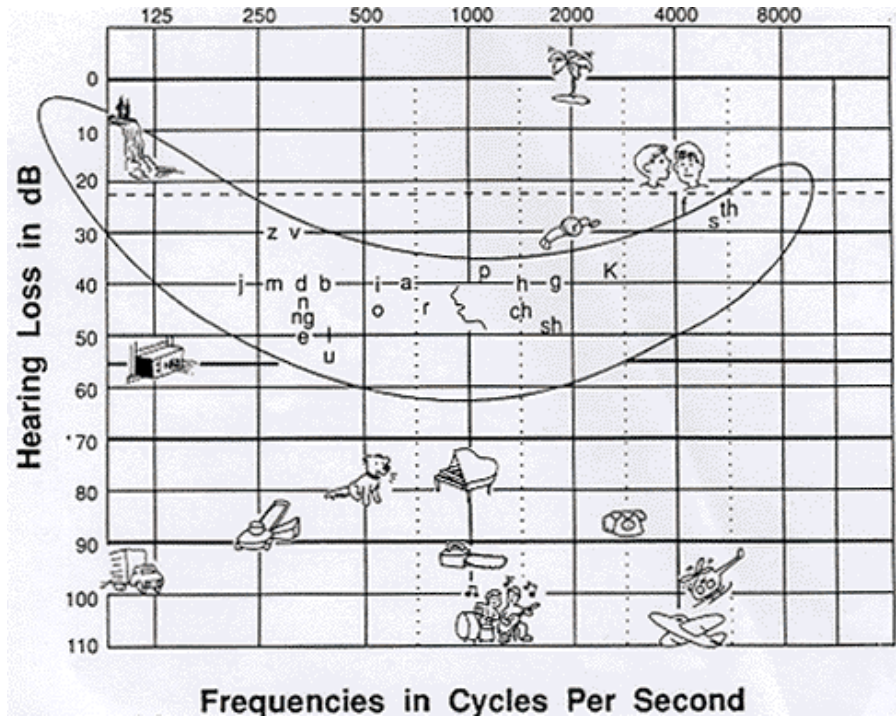
What is an Audiogram?

To understand what happens in a hearing test, you should know about pitch and loudness.

Pitch and loudness are the two basic terms we use to describe sounds. If you imagine a piano, the low-pitched sounds or bass notes, are on the left side of the keyboard. High pitched sounds, or treble notes, are on the right.

During a hearing test, you will listen to both treble and bass notes through headphones. By varying the loudness of each pitch, and recording your responses to these sounds, the audiologist can determine the softest level at which you can hear bass and treble pitches.

The results of your test are recorded on a graph called an audiogram.



The Audiologist will also test your ability to understand speech at various loudness levels. The shape of your audiogram will indicate your type of hearing loss. The audiologist is trained to recognize the specific patterns of hearing loss associated with particular medical conditions of the ear. The audiogram will also tell the audiologist what speech sounds you may be missing. This information along with a detailed discussion of your personal communication requirements will help the audiologist select the best hearing solutions for you.