

DESCRIPTIONS OF HEARING LOSS

As your child participates in hearing testing, you will hear hearing loss described in different ways.

This section explains all about hearing loss.

TYPE OF HEARING LOSS

How Do We Hear?

The Ear is made up of three parts:

Outer Ear

The outer ear is made up of three parts; the part we see on the sides of our heads (pinna), the ear canal (external auditory canal), and the eardrum (tympanic membrane). Sound travels through the ear canal and makes the eardrum move.

Middle Ear

The middle ear is made up of the eardrum and three small bones (ossicles). When the eardrum moves, the three middle ear bones vibrate. This vibration creates movement of fluid in the inner ear.

Inner Ear

The inner ear is made up of the snail shaped organ for hearing (cochlea), and the hearing (Auditory) nerve that go to the brain. The movement of fluid causes the inner ear to send nerve signals to the brain. Once the brain receives the message, it identifies that message as sound.

Diagram of the ear

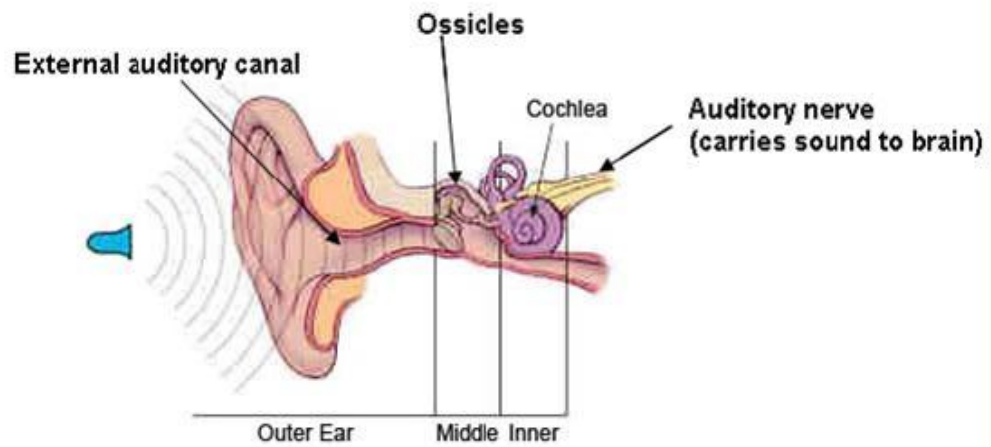


Diagram courtesy of www.babyhearing.org

What are the Different Types of Hearing Loss?

Conductive Hearing Loss

This type of hearing loss is caused by a problem in the outer or middle ear. This means that sound is having difficulty traveling to the inner ear. Children with conductive hearing loss usually cannot hear faint sounds.

Some causes of conductive hearing loss are fluid in the middle ear, wax in the ear canal or a hole in the eardrum. Most types of conductive hearing loss can be treated with medicine or surgery.

Sensorineural Hearing Loss

This type of hearing loss is caused by a problem in the inner ear. Children with sensorineural hearing loss may have difficulty hearing and understanding speech. Sensorineural hearing loss in young children can occur with certain infections before birth, from a lack of oxygen during birth or from genetic syndromes (see risk factors and genetic syndromes below for more information).

[Sensorineural hearing loss in young children can occur with certain infections before birth, from a lack of oxygen during birth, or from certain genetic syndromes \(for a list of genetic conditions associated with hearing loss, please click here.\)](#)

Sensorineural hearing loss usually cannot be cured with medicine or surgery. While this type of hearing loss is permanent, most children will benefit from hearing aids and other hearing assistive technologies, along with speech, language and hearing therapies.

Mixed Hearing Loss

This type of hearing loss occurs when the child has both conductive and sensorineural hearing loss. For example a child with sensorineural hearing loss can also have middle ear problems (such as fluid in the middle ear).

Auditory Neuropathy Spectrum Disorder (ANSD)

Hearing loss that occurs when sound enters the ear normally, but because of damage to the inner ear or the hearing nerve, sound isn't organized in a way that the brain can understand. People with auditory neuropathy spectrum disorder may have normal hearing or hearing loss, and usually have trouble understanding speech.

Degree of Hearing Loss

The degree of hearing loss refers to how much hearing loss is present. There are six categories used to describe the degree of hearing loss. The numbers listed below represent the lowest intensity (or softest) sounds a person can hear.

Normal Hearing for a child (0 – 15 decibels, or dB)

Slight hearing loss (16 – 25 dB)

A child with slight hearing loss may have trouble hearing faint (quiet) or distant speech. Children with slight hearing loss may benefit from hearing aids or other hearing assistive technologies, such as an FM system.

Mild hearing loss (26 – 40 dB)

For children with mild hearing loss, understanding speech can be difficult. They can usually hear well if they are listening to a single person speak in a quiet situation. However, they have more trouble hearing faint or distant speaking.

Children with mild hearing loss usually can benefit from hearing aids and other hearing assistive technologies, such as an FM system.

Moderate hearing loss (41-55 dB)

Listening is a strain for children with moderate hearing loss. While they can understand what a person says if the person is close, it can be difficult for them to hear someone else in a noisy environment. Children with moderate hearing loss may miss 50 – 75% of speech in a conversation, and often need to have part of the conversation repeated.

Children with moderate hearing loss usually can benefit from hearing aids and other hearing assistive technologies.

Moderately- severe hearing loss (56 – 70 dB)

Children with moderately-severe hearing loss can miss up to 100% of speech in a conversation, and need for a conversation to be very loud.

Again, children with moderately- severe hearing loss usually can benefit from hearing aids and other hearing assistive technologies.

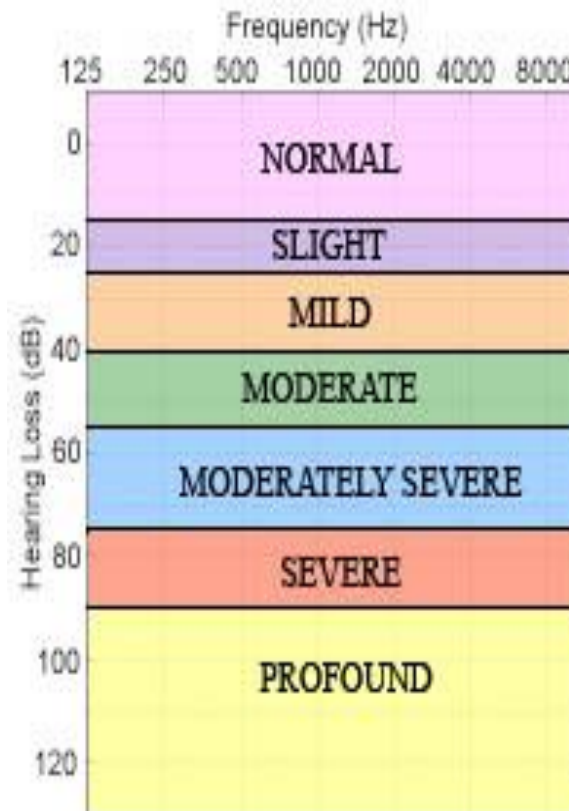
Severe hearing loss (71 – 90 dB)

A Child with severe hearing loss may hear a person speaking one foot away from his/her ear if the person speaks in a loud voice. They may be able to identify noises in their environment (such as traffic outside), but often appear to be ignoring conversation from the people around them.

Profound hearing loss (over 90 dB)

Children with profound hearing loss will not hear any speech. They may detect very loud sounds, and are usually aware of vibrations (movements) around them. People with this degree of hearing loss may rely on vision (sight), rather than hearing, as their main way of communicating with other people.

People with severe and profound hearing loss may benefit from technologies that amplify sound (make sounds louder), but may benefit more from a cochlear implant, or may use signing as a mode of communication.



(source: **AUDGENDB**,2011)

Laterality

This describes whether the hearing loss is unilateral (hearing loss in one ear only) or bilateral (hearing loss in both ears).

Symmetry

Children with symmetrical hearing loss have the same degree and configuration of hearing loss in both ears. Children with asymmetrical hearing loss have a different degree and/or configuration of hearing loss in each ear.

Progressive or Sudden hearing loss

Progressive hearing loss is hearing loss that becomes worse over time. Sudden hearing loss is hearing loss that occurs quickly (within less than 90 days, or 3 months) and requires immediate medical attention to identify its cause and treatment.

Fluctuating or Stable hearing loss

Fluctuating hearing loss is hearing loss that changes, sometimes getting better and sometimes getting worse. This type of hearing loss is usually associated with conductive hearing loss (caused by an ear infection, for example), but may be present in other conditions. Stable hearing loss is hearing loss that does not change over time.

Syndromic or Nonsyndromic Hearing Loss

Children may have syndromic hearing loss (hearing loss associated with other symptoms or features of a condition) or nonsyndromic hearing loss (usually caused by a change within one of the genes related to hearing).

