

Types of Hearing Loss



Some types of conductive hearing loss can be medically treated.

Problems in the outer ear and ear canal can prevent sound from travelling normally to the inner ear. This is **conductive hearing loss**.

There are many causes of conductive hearing loss. The outer ear may form in an atypical way at birth, closing off the ear to hearing, or the ear canal may be blocked by earwax.

Middle ear infections can also cause conductive hearing loss. The space behind the eardrum (the middle ear) is normally air-filled but sometimes with ear infections, fluid can collect there. This build-up of fluid prevents the eardrum from vibrating normally. A conductive hearing loss can also be caused by a hole in the eardrum.

Another cause of conductive hearing loss includes damage to the three tiny bones inside the middle ear.



Eardrum movement can be tested or measured by sending a puff of air into the ear canal to vibrate the eardrum (tympanometry). Having a conductive hearing loss is like wearing earplugs: you won't hear soft sounds. Some types of conductive hearing loss can be medically corrected.

Most types of sensorineural hearing loss are permanent and cannot be corrected by surgery or medication.

In the inner ear, missing or deformed hair cells prevent sound from being sent normally to the brain. A **sensorineural hearing loss** happens when there are problems with the hair cells.

The auditory or hearing nerve starts in the cochlea and travels to the auditory centres of the brain. All of the tiny electrical pulses sent by the cochlea must be processed and interpreted by the brain. Sometimes nerve pathways in the

auditory nerve get damaged. If the pulses are not passed efficiently from one part of the brain to another, sound processing can seem unclear, muffled or distorted. This is also described as a sensorineural hearing loss. Auditory Brainstem Response testing (ABR) looks for brain waves that indicate that sound of a certain pitch and loudness is being received by the brain.

Permanent hearing loss is usually referred to as sensorineural because it is hard to establish exactly how the cochlea and the brain are contributing to the hearing problem, especially in a young child. Sensorineural hearing loss may cause reduced tolerance to loud sounds and may make it difficult to understand words even when they are loud enough. Most types of sensorineural hearing loss are permanent and cannot be corrected by surgery or medication.

A **mixed hearing loss** is a combination of conductive and sensorineural loss. In this type of loss, sound is not being transmitted normally from the outer or middle ear to the inner ear, and there are problems with the inner ear and/or neural parts of the auditory system as well. For example, someone with a permanent sensorineural hearing loss with a middle ear infection may have additional hearing loss (called “conductive overlay”). After the ear infection clears, and the conductive overlay disappears, the person would be said to have only a sensorineural hearing loss.

Adapted from:

[-Parents' Guide: A Guide for Parents of Children with Hearing Loss, Oticon Paediatrics](#)

[-Things You Need to Know About Your Child's Hearing, Oticon Paediatrics](#)

[-Educators' Resource Guide, Manitoba Education, 2009](#)

Other Ways to Describe Hearing Loss

There are many different ways to talk about the different types of hearing loss. We can describe hearing loss by categorizing it - that is, to organize the

information into categories. Each category is described in more detail below this list.



- One way is based on whether or not a baby is born with hearing loss. If the baby is born with hearing loss it is called **congenital**. If the hearing loss occurs after the baby is born it is called **acquired**.

The term congenital hearing loss means that the hearing loss is present at birth.

- Another way depends on whether or not the hearing loss gets worse over time. Hearing loss that gets worse over time is called **progressive**. Hearing loss that does not change is called **non-progressive**.

Fluctuating hearing loss changes over time, sometimes getting better, sometimes getting worse.

Sudden hearing loss is hearing loss that happens very quickly. Such a hearing loss requires immediate medical attention to determine its cause and treatment.

- A third way depends on whether or not other symptoms are present; that is, is it **syndromic** (other symptoms are present) or **non-syndromic** (other symptoms are not present).
- A fourth way depends on whether or not hearing loss runs in the family. If it does, it is called **familial**; if it does not it is **sporadic**.
- A fifth way is based on where in the ear the hearing loss occurs. If the loss occurs in the outer or middle ear it is **conductive**. If it occurs in the inner ear it is **sensorineural**. If the loss occurs in both areas, it is **mixed**.
- A sixth way depends on whether the hearing loss appeared before or after the child developed language. If hearing loss occurs before language development it is called **prelingual**. If the loss occurs after it is **postlingual**.