

Type, Degree, and Configuration of Hearing Loss

When describing hearing loss, we generally look at three aspects: type of hearing loss, degree of hearing loss, and configuration of hearing loss.

TYPES OF HEARING LOSS

There are three basic types of hearing loss: conductive, sensorineural, and mixed.

- O Conductive hearing loss occurs when sound is not sent easily through the outer ear canal to the eardrum and the tiny bones (ossicles) of the middle ear. Conductive hearing loss makes sounds softer and less easy to hear. This type of hearing loss can often be corrected medically or surgically. Some possible causes of conductive hearing loss are:
- Fluid in the middle ear from colds or allergies
- Ear infection (otitis media)
- Poor eustachian tube function
- Hole in the eardrum
- Too much earwax (cerumen)
- Swimmer's ear (external otitis)
- Foreign body in the ear canal
- Malformation of the outer ear, ear canal, or middle ear
- O **Sensorineural hearing loss** (SNHL) happens when there is damage to the inner ear (cochlea) or to the nerve pathways from the inner ear to the brain. Most of the time, SNHL cannot be medically or surgically corrected. This is the most common type of permanent hearing loss.

SNHL reduces the ability to hear faint sounds. Even when speech is loud enough to hear, it may still be unclear or sound muffled.

Some possible causes of SNHL are:

- Drugs that are toxic to hearing
- Hearing loss that runs in the family (genetic or hereditary)
- Aging

- Head trauma
- Malformation of the inner ear
- Exposure to loud noise
- O **Mixed hearing loss** occurs when a conductive hearing loss happens in combination with an SNHL. In other words, there may be damage in the outer or middle ear and in the inner ear (cochlea) or auditory nerve.

DEGREE OF HEARING LOSS

Degree of hearing loss refers to the severity of the loss. The table below shows one of the more commonly used classification systems. The numbers are representative of the patient's hearing loss range in decibels (dB HL).

Degree of hearing loss	Hearing loss range (dB HL)
Normal	-10 to 15
Slight	16 to 25
Mild	26 to 40
Moderate	41 to 55
Moderately severe	56 to 70
Severe	71 to 90
Profound	91+

Source: Clark, J. G. (1981). Uses and abuses of hearing loss classification. *Asha*, 23, 493–500.

CONFIGURATION OF HEARING LOSS

The configuration, or shape, of the hearing loss refers to the degree and pattern of hearing loss across frequencies (tones) as illustrated in a graph called an audiogram. For example, a hearing loss that only affects the high tones would be described as a high-frequency loss. Its configuration would show good hearing in the low tones and poor hearing in the high tones.

On the other hand, if only the low frequencies were affected, the configuration would show poorer hearing for low tones and better hearing for high tones. Some hearing loss configurations are flat, indicating the same amount of hearing loss for low and high tones.

Other descriptors associated with hearing loss are:

• Bilateral versus unilateral. Bilateral hearing loss means hearing loss in both ears. Unilateral hearing loss (UHL) means that hearing is normal in one ear but there is hearing loss in the other ear. The hearing loss can range from mild to very severe. UHL can occur in both adults and children.

Approximately 1 out of every 10,000 children is born with UHL, and nearly 3% of school-age children have UHL. Children with UHL are at higher risk for having academic, speech-language, and social-emotional difficulties than their normal hearing peers. This may be because UHL is often not identified, and the children do not receive intervention.

Below are some possible causes of UHL:

- Hearing loss that runs in the family (genetic or hereditary)
- o An outer, middle, or inner ear abnormality
- o Syndromes such as Down and Usher syndrome

- o Illnesses or infections such as CMV, Rubella
- Head injury
- Exposure to loud noise
- o Traumatic brain injury (TBI)
- Symmetrical versus asymmetrical. Symmetrical means the degree and configuration of hearing loss are the same in each ear. Asymmetrical means the degree and configuration are different in each ear.
- Progressive versus sudden hearing loss. Progressive means that hearing loss becomes worse over time.
 Sudden means that the loss happens quickly. Such a hearing loss requires immediate medical attention to determine its cause and treatment.
- Fluctuating versus stable hearing loss. Fluctuating means hearing loss that changes over time—sometimes getting better, sometimes getting worse. Stable hearing loss does not change over time and remains the same.

NOTES:			

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