HEARING LOSS

A partial or total inability to hear.

♀ Symptom ♀ Male & Female

About Hearing loss

Hearing impairment occurs if there is a problem in the hearing pathway (in normal hearing, sound vibrations pass from the outer ear through the middle ear to the inner ear then via auditory nerve to the brain).

There are a range of different terms used to describe hearing impairment including:

- deaf - a person is unable to understand speech even in the presence of amplification (makes the sound louder)
- hearing loss - there is diminished sensitivity to the sounds normally heard

Hearing loss may be a sudden or a progressive impairment that gradually gets worse over time. Depending on the cause, it can be mild or severe, temporary or permanent. It may be a bilateral loss occurring in both ears or unilateral.

Hearing loss may be caused by a number of factors, including: genetics, ageing, exposure to noise, some infections, birth complications, trauma to the ear, and certain medications or toxins. A common condition that results in hearing loss is chronic ear infections. Certain infections during pregnancy such as rubella may also cause problems.

There are four main types of hearing loss, conductive hearing loss, sensorineural hearing loss, central deafness and combinations of conductive and sensorineural hearing losses which is called mixed hearing loss.

1. **Conductive hearing loss (CHL)**
   CHL usually indicates external or middle ear pathologies, such as fixation of the ossicular chain, tympanic membrane perforation, and cholesteatoma (a destructive and expanding growth in the middle ear) (Pic. 1).

2. **Sensorineural hearing loss**
   Sensorineural hearing loss is largely caused by the degeneration of the cochlea, a sensory organ for hearing in inner ear. The spiral ganglion neurons (primary auditory neurons) transmit auditory stimuli from the cochlea to the central nervous system. Dysfunction of the nerve that transmits the impulses from the cochlea to the hearing centre in the brain leads to sensourethral hearing loss.

3. **Central deafness**
   Damage to the brain can lead to a central deafness. The peripheral ear and the auditory nerve may function well but the central connections are damaged by tumour, trauma or other disease and the patient is unable to hear.
4. Mixed hearing loss
   In mixed hearing loss, there is a combination of conductive and sensorineural components.

   Treatment depends on the specific cause if known as well as the extent, type and configuration of the hearing loss. Most hearing loss, that resulting from age and noise, is progressive and irreversible, and there are currently no approved or recommended treatments; management is by hearing aid. A few specific kinds of hearing loss are amenable to surgical treatment. In other cases, treatment is addressed to underlying pathologies, but any hearing loss incurred may be permanent.

Reproduction system related disorders:

- Mumps
- Turner syndrome

Mumps

Mumps or epidemic parotitis is the inflammation of parotic glands. It is caused by mumps virus. This disease has several complications, which also include deafness. Deafness caused by parotitis is unilateral and sensorineural. The reason of deafness is thought to be because of the inflammation of labyrinth and the fluid contained in the membranous labyrinth of the inner ear called endolymph. Four of five days after the onset of mumps can appear the hearing loss. It is often sudden with permanent and profound hearing impairment. Fortunately, this complication is very rare.

Turner syndrome

Besides the typical features of Turner syndrome (short stature, failure to enter puberty spontaneously and infertility due to ovarian insufficiency) ear problems are common. One of them are recurrent otitis media (inflammatory of middle ear) and progressive sensorineural hearing disorder. More than 60% of the Turner girls (60–80%) aged 4–15 years suffer from repeated attacks of acute otitis media, as compared to 5% of children (aged 0–6 years) in the normal population.

Find more about related issues

Diagnoses

- Turner syndrome
  Turner syndrome is a genetic disorder in which a female is partly or completely missing one X chromosome that results in ovarian dysgenesis.
  Learn more at: www.fertilitypedia.org/therapy/diag/turner-syndrome

- Mumps
  Mumps was a common childhood viral disease caused by the mumps virus. Mumps frequently causes orchitis and impairs male fertility.
  Learn more at: www.fertilitypedia.org/therapy/diag/mumps
Obturation of ear by cholesteatoma

Sources

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