Common Middle Ear Problems

Middle ear problems may be caused by something that occurs at birth or right after birth (congenital). This may be an inherited condition. Or it may be due to medicines or a viral infection, such as hepatitis, HIV, syphilis, or cytomegalovirus. Over time, certain growths or bone diseases can also harm the middle ear. Left untreated, middle ear problems often lead to lifelong (permanent) hearing loss.

The ear has 3 main parts: the outer ear, middle ear, and inner ear. The middle ear is made up of:

- The eardrum (tympanic membrane)
- An air-filled space with bones (ossicles) that link the eardrum to the inner ear

There are 3 types of hearing loss:

- **Conductive hearing loss.** This is caused by anything that limits sound from the inner ear
- **Sensorineural hearing loss.** This is caused by the inner ear (cochlea) or the auditory nerve.
- **Mixed hearing loss.** This is a combination of conductive and sensorineural hearing loss.



Symptoms

- Hearing loss in 1 or both ears
- Fluid, often smelly, draining from the ear
- Mild pain or a feeling of pressure in the ear
- Ringing in the ear (tinnitus)
- A feeling of blockage in the ear.

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• Loss of sense of balance, dizziness, or a spinning sensation (vertigo)

Types of hearing loss

Conductive hearing loss

Sound waves may be disrupted before they get to the inner ear. This could be due to problems in either the outer or the middle ear. If this happens, you may have conductive hearing loss. Loud sounds may be muffled. And it can be hard to hear soft sounds.

Causes can include:

- Fluid in the middle ear
- Ear infection (otitis media)
- Infection in the external ear canal (swimmer's ear or external otitis)
- Earwax in the ear canal
- Noncancer (benign) tumors blocking the outer or middle ear
- A hole in your eardrum (perforated eardrum)
- Something stuck in the outer ear
- Structural problems in the outer or middle ear

This type of hearing loss can often be treated with medicine or surgery.

Sensorineural hearing loss

This is the most common type of lifelong hearing loss. It occurs after damage to the inner ear. It can also occur when there are problems with the auditory nerves that travel from the inner ear to the brain. You may find it hard to hear soft sounds. Louder sounds may not be clear. Or they may be muffled.

Causes can include:

- Illnesses
- Certain medicines that damage the ear, such as certain antibiotics, water pills, and chemotherapy drugs.
- Age-related hearing loss (presbycusis)
- Family history of hearing loss
- Head injury
- Loud noise exposure near the ear, such as an explosion or gunshot.
- Structural problems in the inner ear cochlear components caused by trauma or congenital conditions.

In some cases, it may be hard to know the cause of sensorineural hearing loss. Some metabolic disorders, such as diabetes, have been linked to it. If your hearing loss is

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unexplained, you may need tests to help find the cause. These can include:

- Blood sugar level tests
- Complete blood count
- Thyroid function tests
- Syphilis blood tests
- An MRI scan to see the internal ear canal
- Genetic tests for inherited causes of hearing loss
- Other blood tests to check for autoimmune disease

In most cases, sensorineural hearing loss can't be fixed with medicine or surgery. Hearing aids may be needed.

Mixed hearing loss

This type occurs when a conductive hearing loss happens at the same time as a sensorineural hearing loss. It is a problem in your outer or middle ear as well as in your inner ear. You may not hear correctly in either one or both ears.

Treatment for mixed hearing loss may be a combination of medicine or surgery, as well as hearing aids.

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