CONDITION

Hearing loss

Hearing loss is a reduced ability to hear sounds in one or both ears.

WHAT IT IS
Reduced hearing in one or both ears

BODY SYSTEM
Ears and nervous system

MAIN SYMPTOMS
Muffled sounds, missed speech, tinnitus, higher volume needs

WHAT CAUSES IT
Aging, noise, blockage, infection, genes, or injury

HOW IT IS DIAGNOSED
Ear examination and hearing tests

MAIN TREATMENT
Cause-specific care, hearing devices, communication support

CAN IT BE CURED?
Sometimes - reversible causes can be treated

IS IT AN EMERGENCY?
Sometimes - sudden loss needs urgent assessment

LONG-TERM OUTLOOK
Often manageable with treatment, devices, and communication support

Overview

Hearing loss means that you cannot hear some or all sounds as clearly as expected. It may affect one ear or both. It can be mild, moderate, severe, or profound, and it may develop suddenly or gradually.

Some people use the word deafness for severe or profound hearing loss. Others identify as Deaf, with a capital "D," meaning they are part of a community with its own language and culture. People may have different preferences about these terms.

Hearing relies on several connected structures. Sound travels through the outer and middle ear to the cochlea, a fluid-filled organ in the inner ear. The cochlea changes sound into nerve signals, which travel to the brain.

Hearing loss is often described by where the problem occurs:

Some causes are temporary and treatable. Damage to inner-ear sensory cells or the hearing nerve is usually permanent, but hearing devices and communication support can make a substantial difference.

- Conductive hearing loss affects sound passing through the outer or middle ear. Earwax, fluid, infection, or damage to the eardrum can cause it.
- Sensorineural hearing loss involves the cochlea or hearing nerve. Aging, loud noise, some infections, inherited conditions, and certain medicines can cause it.
- Mixed hearing loss includes both conductive and sensorineural changes.

Symptoms

Hearing loss does not always feel like sounds becoming quieter. Speech may seem unclear, especially when several people are talking or there is background noise.

You may notice:

Hearing loss in one ear can make it particularly difficult to locate sounds or understand speech in noisy places.

Children may not react to sounds, may speak later than expected, or may have unclear speech. A child may appear inattentive when they have not heard an instruction. School difficulties can also be a sign, although these symptoms have many possible causes.

Sudden hearing loss may feel like a blocked ear and can be mistaken for wax or congestion. It may be accompanied by tinnitus, dizziness, or a popping sensation. A sudden unexplained change needs urgent assessment.

- difficulty following conversations or hearing on the phone
- people seeming to mumble
- trouble hearing high-pitched sounds, such as some alarms or birds
- needing the television, radio, or headphones louder
- frequently asking people to repeat themselves
- relying more on lip movements or facial expressions
- difficulty telling where a sound is coming from
- ringing, buzzing, or other sounds without an outside source, called tinnitus

Causes and risk factors

Earwax blocking the ear canal is a common cause of reduced hearing. Objects in the ear, swelling of the ear canal, and a perforated eardrum can also stop sound from passing normally.

Middle-ear infections and fluid behind the eardrum may cause temporary conductive hearing loss. Fluid is especially common in children. Structural problems affecting the eardrum or the tiny middle-ear bones can cause longer-lasting loss.

Inner-ear sensory cells can be damaged by aging or repeated exposure to loud sound. A single extremely loud event, such as an explosion, may also cause immediate damage.

Other possible causes include:

Examples of medicines that may affect hearing include certain cancer treatments, some powerful antibiotics like amoxicillin or doxycycline , and high doses of particular medicines. The risk is not the same for every medicine or every person. Do not stop prescribed treatment without medical advice.

The chance of hearing loss increases with age and with greater lifetime exposure to loud noise. Smoking, some cardiovascular conditions, and diabetes are also associated with a higher risk.

- inherited differences affecting the ear or hearing nerve
- infections during pregnancy, infancy, or later life
- head or ear injuries
- disorders affecting the inner ear
- benign growths involving the hearing nerve
- autoimmune conditions
- medicines that can damage hearing, known as ototoxic medicines

Diagnosis

A healthcare professional will ask when the change began, whether one or both ears are affected, and whether you have tinnitus, pain, discharge, dizziness, noise exposure, or a family history of hearing loss. They may also review your medicines.

An examination with a lighted instrument called an otoscope can find wax, inflammation, fluid, eardrum damage, or an object in the ear.

Formal hearing tests are usually carried out by an audiologist, a professional trained in hearing assessment. Tests may include:

Babies can have tests that measure inner-ear or brain responses without needing them to answer.

Blood tests or imaging, such as an MRI or CT scan, are not needed for everyone. They may be recommended for sudden loss, major differences between the ears, neurological symptoms, injury, or a suspected structural problem.

- Pure-tone audiometry , which finds the quietest sounds you can hear at different pitches
- Speech testing , which checks how clearly you hear and understand words
- Tympanometry , which measures how the eardrum and middle ear respond to changes in air pressure
- Bone-conduction testing , which helps show whether hearing loss comes from the outer or middle ear, or the inner ear

Treatment and management

Treatment is based on the cause, severity, and effect on daily life.

Blocked earwax can be softened or removed safely. Do not place cotton swabs or other objects into the ear canal, as this can push wax deeper or injure the ear.

Some infections need monitoring, symptom relief, or treatment directed at the infection. Persistent middle-ear fluid or damage to the eardrum and middle-ear bones may sometimes be treated with a procedure or surgery.

Sudden sensorineural hearing loss is commonly assessed for prompt treatment with corticosteroids like prednisone or hydrocortisone , which reduce inflammation. Treatment is not suitable for everyone and is most time-sensitive when started soon after the loss begins.

Hearing aids make selected sounds louder and clearer. They do not restore normal hearing, and the brain may need time to adjust. Different styles and settings suit different patterns of hearing loss.

Other forms of support include:

Bone-conduction devices send sound through the skull to the inner ear and may help with certain conductive or one-sided losses. Cochlear implants send electrical signals to the hearing nerve and may be considered for severe or profound sensorineural hearing loss when hearing aids provide limited benefit. Assessment and rehabilitation are required.

Regular hearing-device checks can improve comfort, sound quality, and benefit. Earwax, changes in hearing, and poor fit can all affect performance.

- assistive listening devices for phones, televisions, classrooms, or meetings
- alerting devices that use flashing lights or vibration
- captions, speech-to-text tools, or text-based communication
- communication training, lip-reading, or sign language
- counselling or peer support

Complications

Untreated hearing loss can make conversation tiring and may lead to misunderstandings. Some people withdraw from social activities because following speech takes more effort. This can contribute to loneliness, low mood, or anxiety.

Children may have difficulty developing speech and language or taking part in lessons if hearing needs are not identified and supported early.

Hearing loss is associated with falls and cognitive decline in older adults, although this does not mean it directly causes these problems in every person. Reduced awareness of alarms, traffic, or approaching people can also affect safety.

Tinnitus and balance symptoms may occur alongside hearing loss. Persistent ear infections or certain structural problems can occasionally damage nearby ear structures if they are not managed.

Prevention

Not all hearing loss can be prevented. Inherited hearing loss, many age-related changes, and some sudden inner-ear losses may occur despite appropriate care.

You can reduce avoidable noise damage by lowering the volume, moving away from loud sound, and taking quiet breaks. Use properly fitted hearing protection around power tools, machinery, firearms, concerts, or other loud environments. Protection should reduce harmful sound without creating other safety risks.

Keep music and personal audio at a comfortable level. If sound leaves your ears ringing or muffled afterward, it was likely too loud.

Avoid placing cotton swabs, ear candles, or other objects into the ear canal. These can push wax inward, cause burns, or damage the eardrum.

Vaccination and appropriate treatment of infections can prevent some infection-related

hearing loss. If a medicine may affect hearing, the prescribing team may arrange monitoring when appropriate. Never change or stop an important medicine on your own.

Living with it and what to expect

The course of hearing loss depends on its cause. Hearing may return after wax removal, recovery from an infection, or treatment of a middle-ear problem. Inner-ear hearing loss is more often permanent.

Age-related and noise-related hearing loss may progress over years. Other forms remain stable. Sudden or fluctuating changes need reassessment rather than being assumed to be part of an existing condition.

Hearing aids and implants usually require adjustment, practice, and follow-up. They can improve access to sound but may not remove all difficulty, particularly in noisy settings. Clear communication strategies remain useful.

It may help to tell people how they can communicate with you. Ask them to face you, reduce background noise, speak clearly without shouting, and avoid covering their mouth. Captions and written summaries can help with appointments, education, and work.

Most people with hearing loss continue to work, study, maintain relationships, and take part in activities. Workplace or school adjustments may include better seating, remote microphones, captions, quieter meeting spaces, or visual alerts.

Ongoing hearing checks may be recommended if your hearing is changing, you use hearing devices, or you are exposed to noise or medicines that could affect hearing.

When to get medical help

Seek urgent same-day medical assessment if hearing drops suddenly in one or both ears, especially if the change developed over hours or within a few days. Do not assume that a suddenly blocked feeling is wax.

Get emergency help if hearing loss follows a serious head injury or occurs with signs of a stroke, such as facial weakness, arm weakness, severe loss of balance, confusion, or difficulty speaking.

Prompt medical advice is also important for hearing loss with severe ear pain, bloody or pus-like discharge, fever with significant illness, a foreign object in the ear, or new weakness or numbness.

Arrange a routine appointment if hearing has gradually worsened, tinnitus is persistent, one ear hears noticeably less than the other, or hearing difficulty is affecting conversations, work, school, or safety. Children with possible hearing, speech, or language difficulties should be assessed without unnecessary delay.

Common questions

Can hearing loss be reversed?

Sometimes. Hearing may improve when the cause is wax, infection, middle-ear fluid, or another treatable blockage. Inner-ear or hearing-nerve damage is usually permanent, but hearing aids, implants, and communication support can improve daily hearing.

How do I know if I need a hearing test?

Consider a test if you often miss speech, increase the volume, struggle in background noise, or notice a difference between your ears. A hearing test can identify changes that may not be obvious in quiet settings.

Does tinnitus mean I am losing my hearing?

Not always. Tinnitus often occurs with hearing loss, but it can also happen when a standard hearing test is normal. New one-sided tinnitus, pulsing tinnitus, or tinnitus with sudden hearing loss should be assessed.

Will a hearing aid make my hearing normal again?

No. A hearing aid can make important sounds more accessible, but it does not repair inner-ear damage. Careful fitting, realistic expectations, and regular use usually help people gain more benefit.

Can earwax cause permanent hearing loss?

Wax usually causes temporary hearing loss that improves after safe removal. Trying to remove it with objects can injure the ear. Persistent hearing difficulty after wax removal needs further assessment.

Is hearing loss a normal part of aging?

Hearing changes become more common with age, but they should not simply be ignored. Assessment can identify treatable causes and provide support that may improve communication, independence, and safety.

Sources

- National Institute on Deafness and Other Communication Disorders: Hearing Loss and Older Adults
- National Institute on Deafness and Other Communication Disorders: Sudden Sensorineural Hearing Loss
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- Chandrasekhar SS, Tsai Do BS, Schwartz SR, et al. Clinical Practice Guideline: Sudden Hearing Loss (Update). Otolaryngology-Head and Neck Surgery. 2019;161(1_suppl):S1-S45
- World Health Organization: Deafness and Hearing Loss