CONDITION

Severe hearing loss

Severe hearing loss is a major reduction in hearing that makes speech difficult to understand without support.

WHAT IT IS
Major hearing reduction affecting speech and everyday communication

BODY SYSTEM
Ears and nervous system

MAIN SYMPTOMS
Difficult speech understanding, high volume needs, missed sounds, tinnitus

WHAT CAUSES IT
Ageing, noise, infection, injury, medicines, or inherited conditions

HOW IT IS DIAGNOSED
Formal hearing tests, including pure-tone audiometry

MAIN TREATMENT
Hearing technology, rehabilitation, and cause-specific medical or surgical care

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

IS IT AN EMERGENCY?
Sometimes - sudden hearing loss needs same-day assessment

LONG-TERM OUTLOOK
Often permanent, but communication can improve substantially

Overview

Severe hearing loss means hearing is reduced enough to make ordinary conversation difficult, even when someone speaks loudly. It may affect one ear or both ears. It can be present from birth, develop gradually, or appear suddenly.

Hearing specialists measure sound in decibels. Different health systems use slightly different ranges to define "severe." The test result is only part of the picture. Your ability to understand speech, hear in background noise, use the telephone, and notice warning sounds also matters.

Hearing loss is commonly grouped by where the problem occurs:

Some people identify as deaf or as part of the Deaf community, while others use terms such as hard of hearing. These are personal and cultural identities, not simply test results.

Severe hearing loss is often permanent, but that does not mean nothing can be done. Hearing aids, implants, communication support, rehabilitation, and treatment of an underlying cause may improve access to speech and other sounds.

- Conductive hearing loss affects the outer or middle ear, where sound is carried toward the inner ear
- Sensorineural hearing loss involves the inner ear or hearing nerve
- Mixed hearing loss combines conductive and sensorineural hearing loss

Symptoms

The main symptom is difficulty hearing sounds that other people can hear. The effect may be more noticeable in busy places, on the telephone, or when the speaker is not facing you.

You may:

Some people become less involved in conversations because keeping up takes so much effort. This can be mistaken for confusion, inattention, or memory problems.

Babies and children may not respond consistently to sounds, may have delayed speech, or may speak differently from other children their age. A child can still react to loud noises despite having substantial hearing loss. Hearing assessment should not be delayed just because some sounds appear to be heard.

Severe hearing loss can also occur with ear pressure, pain, discharge, dizziness, or balance problems. These symptoms may provide clues about the cause.

- Struggle to follow ordinary conversation
- Rely on lip movements, facial expressions, captions, or sign language
- Need television, music, or telephone volume set very high
- Miss doorbells, alarms, approaching vehicles, or someone calling your name
- Hear speech but find that words sound unclear
- Feel tired after concentrating on conversations
- Experience ringing or other sounds in the ear, called tinnitus

Causes and risk factors

Severe hearing loss has many possible causes. Sometimes more than one factor is involved,

and in some people no single cause is found.

Conductive causes include impacted earwax, persistent middle-ear fluid, a damaged eardrum, and problems with the tiny middle-ear bones. Conditions such as otosclerosis, which limits movement of one of these bones, may also interfere with sound transmission. A cholesteatoma is an abnormal collection of skin cells inside the ear that can damage nearby structures if untreated.

Sensorineural hearing loss may result from:

A growth affecting the hearing and balance nerve is an uncommon cause, particularly when hearing loss is one-sided or clearly worse in one ear.

Risk is higher with increasing age, long-term workplace or recreational noise, a family history of early hearing loss, and previous ear surgery or serious ear infections. Premature birth and certain complications around birth can increase risk in children.

Do not stop a prescribed medicine because hearing loss is listed as a possible side effect. A clinician can review the risks, alternatives, and need for hearing monitoring.

- Genetic or inherited conditions
- Differences in inner-ear development before birth
- Age-related inner-ear changes
- Repeated loud-noise exposure or a very intense sound
- Meningitis and certain other infections
- Head or ear injury
- Some medicines that can damage hearing
- Inner-ear disorders such as Ménière's disease
- Sudden sensorineural hearing loss, which often has no clear cause

Diagnosis

A full hearing assessment is usually carried out by an audiologist, a professional trained in hearing and balance testing. An ear, nose, and throat specialist may also be involved.

The assessment begins with questions about when the hearing loss started, whether it affects one or both ears, and whether there is tinnitus, dizziness, pain, discharge, noise exposure, or a family history. The ear canal and eardrum are examined for wax, infection, injury, or other visible problems.

Pure-tone audiometry measures the quietest tones you can hear at different pitches. Sounds may be delivered through headphones and through a small device placed behind the ear. Comparing these results helps show whether the hearing loss is conductive, sensorineural, or mixed.

Other tests may include:

Babies and some children can be assessed without needing to press a button or explain what they hear.

A hearing screening can identify a possible problem, but it does not provide the same detail as a diagnostic assessment. Imaging, such as an MRI or CT scan, may be recommended when hearing loss is sudden, one-sided, uneven between the ears, or linked to certain examination findings. Blood tests are used only when the history suggests a specific medical cause.

- Speech testing to measure how well words are detected or understood
- Tympanometry to check eardrum movement and middle-ear function
- Otoacoustic emission testing to assess responses from the inner ear
- Auditory brainstem response testing to measure nerve responses to sound

Treatment and management

Treatment is based on the type and cause of hearing loss, how long it has been present, and how it affects communication.

Some conductive causes can be treated. Examples include professional wax removal, treatment of middle-ear disease, or surgery to repair damaged ear structures. Improvement is not guaranteed, especially if inner-ear hearing loss is also present.

Sudden sensorineural hearing loss is treated differently from gradual hearing loss. Corticosteroid treatment may be considered after urgent assessment. It is most time-sensitive when started soon after symptoms begin, so sudden loss should not wait for a routine hearing appointment.

For permanent hearing loss, options include:

Hearing aids. These make selected sounds louder and are programmed for a person's hearing pattern. They may improve access to speech but do not restore normal hearing. Benefit can be limited when the inner ear has difficulty turning sound into clear words.

Cochlear implants. These electronic devices bypass damaged inner-ear structures and directly stimulate the hearing nerve. They may be considered for severe or profound sensorineural hearing loss when appropriately fitted hearing aids do not provide enough benefit. Assessment

includes hearing tests, medical evaluation, discussion of expectations, and rehabilitation needs.

Other implantable devices. Bone-conduction or middle-ear devices may suit certain conductive, mixed, or one-sided hearing losses.

Assistive technology. Remote microphones, captioned telephones, flashing or vibrating alarms, television listening systems, and live captions can improve communication and safety.

Hearing rehabilitation. This may include learning to use hearing technology, listening practice, speechreading, sign language, communication strategies, and support for family members.

Children need timely access to language. Support may involve spoken language, sign language, or both, based on the child's needs and the family's informed choices. Hearing devices and sign language are not mutually exclusive.

Complications

Severe hearing loss can affect communication, education, employment, relationships, and access to health information. Listening effort may cause fatigue, headaches, or difficulty concentrating.

Possible effects include:

Research has found an association between hearing loss and cognitive decline in older adults. This does not mean that hearing loss inevitably causes dementia. Social engagement, access to communication, and appropriate hearing care remain important.

Persistent ear disease can sometimes damage nearby structures. Regular follow-up is especially important when there is ongoing discharge, a cholesteatoma, an implant, or a condition known to progress.

- Social isolation, anxiety, or low mood
- Misunderstandings at home, school, or work
- Reduced awareness of alarms, traffic, and other warning sounds
- Delayed language development when hearing loss begins early in childhood
- Balance difficulties or falls when an inner-ear disorder is also present

Prevention

Not every case of severe hearing loss can be prevented. Hearing loss caused by inherited

conditions, development before birth, ageing, or an unexplained sudden inner-ear event may occur despite appropriate care.

You can reduce some avoidable risks by limiting exposure to loud sounds. Use well-fitted hearing protection around power tools, firearms, loud machinery, or amplified music. Move away from loudspeakers and take quiet breaks when possible. Ringing or muffled hearing after noise exposure suggests the sound was too loud.

Keep routine vaccinations up to date because some vaccine-preventable infections can damage hearing. Avoid putting cotton swabs or other objects into the ear canal, as they can push wax deeper or injure the eardrum.

If you take a medicine known to affect hearing, follow the monitoring plan provided by your care team. Do not change or stop treatment without medical advice.

Newborn screening, school screening, and adult hearing checks do not prevent hearing loss, but they can identify it earlier and reduce its effect on communication and development.

Living with it and what to expect

The long-term course is linked to the cause. Hearing loss from a one-time injury may remain stable, while age-related, inherited, or other inner-ear conditions may progress. Conductive hearing may improve if the underlying problem can be corrected. No test can predict every person's course with certainty.

Hearing aids usually require adjustment and follow-up. Earmould fit, sound settings, earwax, and changes in hearing can all affect performance. Cochlear implants also require repeated programming and rehabilitation. The sound from an implant is not the same as natural hearing, and results differ between people.

Practical communication changes can reduce listening effort. Ask people to face you, speak clearly without shouting, and reduce background noise. Captions, written information, text messaging, and remote microphones can help. Tell healthcare staff about your preferred communication method when arranging appointments.

Routine hearing follow-up can check for changes, maintain equipment, and review whether current support still meets your needs. Children generally need ongoing monitoring because hearing, language, education, and device needs change as they grow.

Many people with severe hearing loss study, work, drive, raise families, and take part in community life. Access needs differ. Some people mainly use hearing technology, some use sign language, and others combine several approaches.

When to get medical help

Seek same-day medical assessment if hearing drops suddenly over hours or a few days, especially in one ear. A blocked feeling does not rule out sudden sensorineural hearing loss.

Seek emergency help for hearing loss accompanied by:

Arrange an urgent appointment for severe ear pain, swelling behind the ear, persistent discharge, fever with worsening ear symptoms, or hearing loss with significant dizziness.

Arrange a routine hearing assessment if hearing has gradually declined, conversations are becoming difficult, or family members regularly notice missed sounds. Children should be assessed promptly if there are concerns about hearing, speech, language, or responses to sound.

- Facial weakness, trouble speaking, severe unsteadiness, or weakness on one side
- A major head injury
- Loss of consciousness or other signs of a neurological emergency
- Clear fluid or blood leaking from the ear after injury

Common questions

Is severe hearing loss the same as being deaf?

Not always. "Severe hearing loss" describes a measured level of hearing. "Deaf" may describe profound hearing loss, a communication preference, or a cultural identity. People choose the language that fits them.

Can severe hearing loss be cured?

Some conductive causes can improve with medical or surgical treatment. Most severe sensorineural hearing loss is permanent, but hearing aids, implants, rehabilitation, captions, and sign language can improve communication.

Will ordinary hearing aids work for severe hearing loss?

They help many people, but benefit is influenced by speech understanding as well as sound volume. If well-fitted hearing aids do not provide enough access to speech, an implant assessment may be appropriate.

How bad must hearing be for a cochlear implant?

There is no single test number that applies to everyone. Implant teams consider hearing levels, speech understanding, hearing-aid benefit, medical findings, and communication needs.

Can severe hearing loss get worse?

It can, but some hearing loss remains stable. The cause, age, noise exposure, ear disease, and certain medical conditions affect the likelihood of progression. Repeat hearing tests can detect change.

Can I drive with severe hearing loss?

Many people with severe hearing loss drive safely. Licensing rules differ by location and vehicle type. Visual awareness, properly adjusted mirrors, and suitable alerting technology can support safety.

Sources

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