



Hearing Loss

You may have hearing loss and not even be aware of it. People of all ages experience gradual hearing loss, often due to the natural aging process or long exposure to loud noise. Other causes of hearing loss include viruses or bacteria, heart conditions or stroke, head injuries, tumors, and certain medications. Treatment for hearing loss will depend on your diagnosis.

How does the hearing sense work?

Hearing is a complex and intricate process. The ear is made up of three sections: the outer ear, the middle ear, and the inner ear. These parts work together so you can hear and process sounds. The outer ear, or pinna (the part you can see), picks up sound waves and directs them into the outer ear canal.

These sound waves travel down the ear canal and hit the eardrum, which causes the eardrum to vibrate. When the eardrum vibrates, it moves three tiny bones in your middle ear. The middle ear is a small air-filled space between the eardrum and the inner ear. These bones form a chain and are called the hammer (or malleus), anvil (or incus), and stirrup (or stapes). The movement of these bones transmits and amplifies the sound waves toward the inner ear.

The third bone in the chain, the stapes, interfaces with fluid which fills the hearing portion of the inner ear – the cochlea. The cochlea is lined with cells that have thousands of tiny hairs on their surfaces. As the fluid wave travels through the cochlea, it causes the tiny hairs to move. The hairs change the mechanical wave into nerve signals. The nerve signals are then transmitted to your brain, which interprets the sound.

Test your hearing

To get an idea of how well you hear, answer the following questions and then calculate your score. To calculate your score, give yourself 3 points for every “Almost always” answer, 2 points for every “Half the time” answer, 1 point for every “Occasionally” answer, and 0 for every “Never.” Please note: If hearing loss runs in your family, add an additional 3 points to your overall score.

The American Academy of Otolaryngology—Head and Neck Surgery recommends the following:

0-5 points—Your hearing is fine. No action is required.

6-9 points—Suggest you see an ear, nose, and throat (ENT) specialist.

10+ points—Strongly recommend you see an ear, nose, and throat (ENT) specialist.

I have a problem hearing over the telephone.

- Almost always
- Half the time
- Occasionally
- Never

I have trouble following the conversation when two or more people are talking at the same time.

- Almost always
- Half the time
- Occasionally
- Never

People complain that I turn the TV volume too high.

- Almost always
- Half the time
- Occasionally
- Never

I have to strain to understand conversations.

- Almost always
- Half the time
- Occasionally
- Never

I miss hearing some common sounds like the phone or doorbell ring.

- Almost always
- Half the time
- Occasionally
- Never

I have trouble hearing conversations in a noisy background, such as at a party.

- Almost always
- Half the time



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- Occasionally
- Never

I get confused about where sounds come from.

- Almost always
- Half the time
- Occasionally
- Never

I misunderstand some words in a sentence and need to ask people to repeat themselves.

- Almost always
- Half the time
- Occasionally
- Never

I especially have trouble understanding the speech of women and children.

- Almost always
- Half the time
- Occasionally
- Never

I have worked in noisy environments (such as assembly lines, construction sites, or near jet engines).

- Almost always
- Half the time
- Occasionally
- Never

Many people I talk to seem to mumble, or don't speak clearly.

- Almost always
- Half the time
- Occasionally
- Never



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People get annoyed because I misunderstand what they say.

- Almost always
- Half the time
- Occasionally
- Never

I misunderstand what others are saying and make inappropriate responses.

- Almost always
- Half the time
- Occasionally
- Never

I avoid social activities because I cannot hear well and fear I'll make improper replies.

- Almost always
- Half the time
- Occasionally
- Never

Ask a family member or friend to answer this question: Do you think this person has a hearing loss?

- Almost always
- Half the time
- Occasionally
- Never

What can I do to improve my hearing?

- Eliminate or lower unnecessary noises around you.
- Let friends and family know about your hearing loss and ask them to speak slowly and more clearly.
- Ask people to face you when they are speaking to you, so you can watch their faces and see their expressions.
- Use sound amplifying devices on phones.
- Use personal listening systems to reduce background noise.



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Tips to maintain hearing health

- If you work in noisy places or commute to work in noisy traffic or construction, choose quiet leisure activities instead of noisy ones.
- Develop the habit of wearing earplugs when you know you will be exposed to noise for a long time.
- Earplugs can reduce the volume of sound reaching the ear to a safer level
- Try not to use several noisy machines at the same time.
- Try to keep television sets, stereos, and headsets low in volume.



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