

## **Prevention and treatment of ear diseases**

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**Abstract.** Among the organs of our body, in addition to the general function of hearing, the ear is an important organ that controls and maintains the body's sense of balance. In this article, we provide information about the origin of ear diseases, methods of prevention and treatment of diseases.

**Key words.** Ear, otorhinolaryngology, cochlear, sound, otitis, otolithiasis, tinnitus, Ménière's disease, sensorineural, nerve, signal, vertigo.

The urgency of the problem. Today, ear diseases are among the leading diseases among the population. Prevention and treatment of ear diseases, eliminating the causes of the disease remain relevant today.

Purpose of research. The purpose of our research is to study measures to prevent and treat ear diseases that occur among the population.

Test methods and materials. Ears are mainly divided into outer ear, middle ear and inner ear. The outer ear collects sound through the auricle and transmits it to the eardrum, and has a cleaning function and role in distinguishing the location of sound. The middle ear is the internal cavity of the eardrum, consisting of the tympanic membrane, tympanum, ossicles, middle ear muscles and ear canal, and is filled with air. The inner ear is located between the middle ear and the auditory nerve and converts mechanical responses from the middle ear into electrical signals to transmit sound to the auditory nerve and brain. There are various diseases that can occur in the ears. Ménière's disease is not simply explained as an "earache" but can cause pain due to inflammation of the ear, as well as auditory symptoms such as hearing loss, otolithiasis, and tinnitus. The most common ear disease is otitis media. Otitis media is an inflammatory disease that occurs in the middle ear cavity inside the eardrum. In children, it is often manifested in the form of otitis with effusion, in which inflammation is formed inside the eardrum. Otitis media in children often occurs after an upper respiratory tract infection, such as a cold. Washing your hands thoroughly to avoid getting an upper respiratory tract infection can help prevent hearing loss in children due to otitis media. In adults, it manifests as perforation or inflammation of the tympanic membrane,

hearing loss, and cholesteatomatous otitis media. In severe cases, surgical treatment may be required due to hearing loss. Early diagnosis and treatment are important.

Tinnitus is also common. Tinnitus is a subjective symptom of hearing in the ear or head, regardless of external auditory stimulation, and is recognized as one of the important symptoms of ear diseases. Nervous tinnitus, with "buzzing" and "shhh" sounds. Tinnitus through the muscles is expressed by "chirping" and "pattering" sounds. Tinnitus, "squealing" and "squealing" sounds in the veins. Shows various signs of breathing or speaking. , including open eustoma symptoms. Tests on auditory nerve function, ear structure, and surrounding blood vessels are needed to confirm the cause. The increase in patients with hearing loss and tinnitus is due to the increase in the use of hearing aids. With hearing loss, your ears don't hear sounds properly and they sound muffled, making it difficult to understand speech. Depending on the causes, it is divided into "conductive hearing loss", in which there are problems in the way sound is transmitted, and the function of the nerve that receives sound deteriorates, "sensorineural hearing loss". Conductive hearing loss is caused by chronic otitis media, otitis media with effusion, which is common in children, disruption of the ossicular chain responsible for sound transmission in the middle ear, traumatic perforation of the tympanic membrane, and external caused by an overabundance of auditory pathways. Sensorineural hearing loss is a combination of sensorineural hearing loss and neurogenic hearing loss. Sensation refers to the cochlea. When sound comes in the form of vibrations, the cochlear converts it into an electrical signal and transmits it to the auditory nerve. Aging is the main reason why the cochlear cannot produce electrical signals. As we age, the hearing cells in the cochlea are damaged by the aging process, so no matter how much sound is transmitted, electrical signals are not generated in the cochlea. Sensorineural hearing loss can also occur in inflammatory disorders such as meningitis, noise-induced hearing loss, ototoxic drugs, Meniere's disease, sudden hearing loss, and metabolic abnormalities such as hypothyroidism. Over the past four years, the number of patients visiting hospitals due to hearing loss has increased by about 42 percent, from about 290,000 in 2015 to about 420,000 in 2019. In particular, 80,000 or 19.7% of young patients are 30 years old or younger. In addition, the age at which hearing loss is first detected is gradually decreasing. Otolithiasis has been highlighted as the biggest cause of ear-related diseases, accounting for more than 70% of dizziness, which has been increasing in recent times. It is a disease in which the otoliths, which maintain a sense of balance in the vestibular organ inside the ear, have problems moving out of place due to physical symptoms or external shocks. When the position of the head changes, there is a strong feeling that the environment is spinning, and in most cases the patient complains of vomiting along with dizziness. Diagnosis is made through evoked nystagmus tests and vestibular function tests that examine the balance function of the ear. Otolith fragments that are leaking in the lymphatic fluid can be treated with otolith reduction surgery to return them to their original state. Another disease that causes vertigo similar to otolithiasis is Meniere's disease, in which paroxysmal vertigo and auditory symptoms such as hearing loss or tinnitus occur simultaneously.

There are different ways to treat ear diseases. You should receive appropriate treatment for the cause, which has been clearly diagnosed by a specialist. In most cases, symptoms can be improved with treatment, but depending on the degree of hearing loss, hearing may need to be restored through the use of assistive devices such as hearing aids or cochlear implant surgery. Noise-induced hearing damage is difficult to recover from once damaged, and is proportional to the intensity of the noise and the time of exposure to the noise, so you should avoid frequent use of headphones or exposure to loud sounds for a long time. The World Health Organization

recommends keeping the volume around 85 dB and not exceeding a maximum of 110 dB when using headphones or earphones.

Conclusion. In conclusion, many people carelessly ignore the health of the ears, but the ears play an important role as a communication channel that connects itself with society. If there is a problem with the hearing function, communication through conversation becomes difficult. This difficulty causes us to live disconnected from society. If you suspect ear diseases, the best way is to go to your family doctor or see a specialist. Do not neglect your health.

#### References:

1. “General surgery” O.O.Oripov, SH.N.Karimov Tashkent-2008
2. “Surgery” Pryakhin Viktor Fedorovich 2012
3. Xusanova Dilnoza Abduxamid qizi. (2023). Cochlear Implant. American Journal of Pediatric Medicine and Health Sciences (2993-2149), 1(8), 309–310. Retrieved from <https://grnjournal.us/index.php/AJPMHS/article/view/1088>
4. [https://uz.wikipedia.org/wiki/Quloq\\_kasalliklari](https://uz.wikipedia.org/wiki/Quloq_kasalliklari)
5. <https://iloencyclopaedia.org/uz/part-i-47946/sensory-systems>
6. <https://mymedic.uz/kasalliklar/lor/quloq-kasalliklari/>