

Hearing impairment in older people

Loss of hearing tends to gradually increase with advancing age. Every year after the age of 50 we lose some of our hearing ability. As many as 25% of people aged 60 to 70 report hearing impairment. The decline varies from person to person and, like greying of hair, occurs at different rates.

What are the symptoms?

The symptoms vary so that some barely notice a problem while others are severely disabled.

Common symptoms include:

- inability to hear speech and other sounds loudly enough
- inability to hear speech and music clearly, even when it is loud enough
- inability to understand speech, even when it is loud enough (a problem of language reception).

People with mild hearing loss notice only subtle differences and may have trouble hearing certain high frequency sounds such as *s*, *f* or *th*. They may also have trouble hearing in certain situations, such as at a party or in a crowd where there is a lot of background noise. Those with moderate hearing loss have trouble hearing in many situations.

In very old people, deafness can lead to unexpected behavioural problems such as confusion, agitation, anxiety, depression and paranoid delusions.

What are the causes?

Hearing loss takes two forms: *conduction loss*, where the sound waves are blocked in their passage to the inner ear, and *neurosensory loss*, where the inner ear cannot pick up the sound waves properly and thus transmit them to the brain.

Causes of conductive deafness (usually reversible)

- Too much wax in the ears
- Other debris in the ear canal (e.g. cotton bud tip)
- Ear infection
- Faulty vibrating bones (*otosclerosis*)

Causes of neurosensory deafness (usually not reversible)

- Nerve damage
- Exposure to loud noise, including sudden explosions
- Certain drugs
- Brain tumours
- Presbycusis

What is presbycusis?

Presbycusis (pronounced 'prez-bee-ku-siss') is also known as 'old age' deafness and is the most common type of hearing impairment in older people. It is caused by wear and tear in the very delicate workings of the inner ear. It does not cause total deafness but difficulties in understanding speech, especially with background noise.

What are some features of presbycusis?

- Inability to hear high-frequency sounds
- Usually an association with tinnitus (ringing in ears)
- A genetic tendency to the problem
- Intolerance of very loud sounds
- Difficulty picking up high-frequency consonants (e.g. *f*, *s*), which are often distorted or unheard

People with presbycusis frequently confuse words such as *fit* and *sit*, *math* and *mass*, *fun* and *sun*. They often say 'Don't shout—I'm not deaf'.

What signs indicate that hearing should be tested?

- Speaking too loudly
 - Difficulty understanding speech
 - Social withdrawal
 - Lack of interest in attending parties and other functions
 - Complaints about people mumbling
 - Requests to have speech repeated
 - Complaints of tinnitus
 - Setting television and radio on high volume
- Patients are usually referred to an audiologist after a medical check.

What can be done?

If medical problems such as fluid or wax in the ear are not present and 'old age' deafness is proved on testing, a hearing aid is usually fitted. There is no cure for the problem and hearing aids are not the perfect answer. However, modern hearing aids can be tailor-made for the individual person and are usually quite effective.