



## Causes of Hearing Loss

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### Is Osteoporosis Related to Hearing Loss?

Everyone knows that osteoporosis is when the bones become fragile making them susceptible to fractures. Did you know that osteoporosis can also be one of the causes of hearing loss?

#### Hearing Loss and Osteoporosis

There are bones that form the eardrum; they support the thin membrane of the eardrum. When sound enters the ear canal, it strikes the eardrum to emit sound waves to your inner ear.

Damage to any of these middle ear bones results in what is called 'conductive hearing loss.' If this happens, the sound is not being transferred to the inner ear, where the hearing nerve is located. Interestingly enough, osteoporosis can affect these bones. Damage to one or all of the 3 middle ear bones will result in a conductive hearing loss. The bones of the middle ear can deteriorate leading to this hearing impairment.

#### What Can Be Done?

So, if you have osteoporosis and you have noticed some changes in your hearing, it is likely osteoporosis is the culprit. You may be able to have something done medically, but oftentimes, it may not be curable. The following are things you may consider for helping your hearing:

##### **Do nothing**

This may be a surprising option, but sometimes it may not be a problem. A formal hearing test should be done once a year to rule out tumors, Meniere's, or other ear diseases.

##### **Hearing aids**

Hearing aids are the best option that is proven to help the hearing-impaired and are less risky than ear surgery. There are some hearing aids known as bone-implanted hearing aids (BAHA) that can be very convenient for the wearer. You can also opt for the removable ones. They are much more fashionable nowadays, where the wearer can choose from a variety of colors that look good on him/her.

##### **Fluoride**

Taking sodium fluoride as a means of treatment for osteoporosis of the ear bones (otosclerosis) is one that hasn't been proven or disproven as there are many conflicting studies. Fluoride is used for teeth to speed up the hardening of bone. The concept would be the same for otosclerosis. As a dietary supplement, fluoride had been found to be effective in a study at Northwestern University. Other studies have supported the notion of fluoride to treat otosclerosis. It is something to look into for yourself and use reputable sources to support your decision on

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using fluoride. It is possible to ingest too much, so heed the instructions when using it as a dietary supplement.

### **Stapes surgery**

In 1957, a doctor of the name of Shea invented the stapedectomy. It produced excellent results in hearing for many patients. The procedure was only good for conductive hearing loss, however. Anyone with the sensory component of hearing loss cannot have the surgery as it does not address the problem they have.

Many people with hearing issues may elect to try hearing aids out if their hearing is worsening. You have to do what you believe is best for you. If you try fluoride, have a health professional advise you along the way.