

## Presbycusis (age related hearing loss)

### What is presbycusis?

Presbycusis is the loss of hearing that gradually occurs in most individuals as they grow older. Hearing loss is a common disorder associated with aging. About 55% of adults between the ages of 65 and 75 years have a hearing loss. The loss associated with presbycusis is usually greater in the higher frequencies.

There are many causes of presbycusis. Most commonly it arises from changes in the inner ear of a person as he or she ages, but presbycusis can also result from changes along the nerve pathways leading to the brain. Presbycusis most often occurs in both ears, affecting them equally. The process of loss is gradual, people who have presbycusis may not realize that their hearing is diminishing.

### What are the symptoms of presbycusis?

With presbycusis, sounds often seem less clear and lower in volume. This contributes to difficulty hearing and understanding speech. Individuals with presbycusis may experience several of the following:-

- The speech of others seems mumbled or slurred.
- High-pitched sounds such as "s" and "th" are difficult to hear and tell apart.
- Conversations are difficult to understand, especially when there is background noise.
- A man's voice is easier to hear than the higher pitches of a woman's voice.
- Certain sounds seem annoying or overly loud.
- Tinnitus (a ringing, roaring, or hissing sound in one or both ears) may also occur.

### What are the causes of presbycusis?

Sensorineural hearing loss is caused by disorders of the inner ear or auditory nerve. Presbycusis is usually a sensorineural hearing disorder. It is most commonly caused by gradual changes in the inner ear. The cumulative effects of repeated exposure to daily traffic sounds or construction work, noisy offices, equipment that produces noise, and loud music can cause sensorineural hearing loss. Sensorineural hearing loss is most often due to a loss of hair cells (sensory receptors in the inner ear). This can occur as a result of hereditary factors as well as aging, various health conditions, and side effects of some medicines (aspirin and certain antibiotics).

### What can be done?

The strategies to help people with presbycusis are primarily hearing aids. Assistive listening devices can provide further improvement in hearing ability in certain situations. One example of such a device is the built-in telephone amplifier. Training in lip reading (using visual cues to determine what is being spoken) can help those with presbycusis to understand better what is being said in conversations or presentations.