



Bakersfield Composite Squadron #121

60-Second Safety Advisor #37

Turn Down That Music

The ear has three areas: the outer (visible part of the ear), middle, and inner ear. A thin membrane, called the eardrum divides the middle and outer ear. When we hear, sound vibrations, or sound waves, funnel through the outer ear and down the ear canal, where the sounds hit the eardrum, and cause the eardrum to vibrate. Tiny hairs in the cochlea transform the sound vibrations into nerve impulses. The impulses are transmitted to the brain through the auditory nerve. Excessive exposure to loud noise can damage the tiny hairs in the cochlea and can cause permanent damage and hearing loss. This condition is known as noise-induced hearing loss.

The high frequencies are lost first, so you may have difficulty hearing high-pitched voices. Loss of high-frequency hearing makes many words sound alike, especially those containing the high-frequency sounds S or soft C, F, SH, CH or H. Words like “hill,” “fill” and “sill” may sound exactly the same.

Researchers have found the most common causes of permanent hearing loss to be loud music, loud noises in jobs, and gunfire. A ‘guinea pig’ showed hearing impairment in his right ear after listening to high-intensity rock music for 88 hours over a two month span. The left ear, protected by a plug during most of the music, demonstrated no cytological changes. The damage to the right ear was permanent. So, again, prevention is the key!

