

Noise

Most of us enjoy the sounds of laughter, listening to our favorite music, listening to a ball game, or simply enjoying the conversation with others. While many of us enjoy these sounds we may be gradually losing our ability to hear them. So let's review how our hearing may be lost.

Noise is basically a pressure wave moving through the air. When the pressure wave enters our ear canal it pushes up against the ear drum causing the ear drum to move. This movement is transferred into our inner ear where there are hair-like nerve endings suspended in a liquid. The ear drum movement causes the liquid in our inner ear to move which then causes the hair-like nerve endings to move. Our brains interpret the movement of the hair-like nerve endings as sound.

If you are exposed to loud noises the hair-like nerve endings in your inner ear may lay down causing a temporary hearing loss. You may have experienced this if you were in your car listening to loud music. After going to the store and getting back in your car you notice that the radio was turned way up and you instinctively turn it back down. What happened was that the hair-like nerve endings relaxed and stood back up when you went into the quiet environment of the store. However, if you were repeatedly exposed to loud noise, some of these hair-like nerve endings may not stand back up or may even break off causing permanent hearing loss. Once these hair-like nerve endings are damaged or gone, they do not grow back and our hearing is lost forever.

Most of us have experienced some form of hearing loss as we get older and if you work in a loud environment, listen to loud music, or go hunting with a gun, the potential for hearing loss increases. However, if you wear hearing protection when you are around these loud noise levels you may conserve your hearing and you may not lose it. OSHA has established a level of 85 dBA (decibels) for an 8 hour workday as the threshold where hearing protection must be offered. Hearing protection is mandatory at 90 dBA for eight hours. Many of us work around noise levels that exceed these levels. How can you tell if you are exposed to noise over 85 dBA? Well as a general rule, if you are standing at arm's length from someone and you must raise your voice to communicate with them, you are probably in an environment that is over 85 dBA. As a general comparison, here are a few estimated noise levels based on the type of device being operated:

- Lawn Mower – 90 dBA
- Hand Drill – 98 dBA
- Chainsaw – 110 dBA
- Shotgun – 165 dBA

If you do work in a loud environment, wear hearing protection and consider that how you wear the hearing protection will affect the amount of noise you are exposed too. If you wear ear plugs, make sure they are inserted into the ear canal so they are more effective in blocking the noise. If you wear ear muffs, try to reduce the amount of obstructions that prevents a good seal around the ear. Long hair and glasses may affect the seal and allow noise to enter the ear canal. If the noise levels are every loud, consider doubling up the hearing protection and wear ear plugs and ear muffs.

Keep in mind that the term OSHA uses when trying to protect workers hearing is "hearing conservation". They are trying to conserve whatever hearing you have left because once it is gone, it is gone forever.

Attendees:

_____	_____	_____
_____	_____	_____
_____	_____	_____

Location:

Supervisor:

Date:

_____	_____	_____
-------	-------	-------

This safety tip was brought to you by, . . .