

Hearing Conservation*



“Noise” is unwanted sound. The psychological effects of noise is that it can startle you, annoy you, and disrupt your concentration. Physiological effects include loss of hearing. Severe exposure to noise can cause pain and even nausea. Noise can also affect communications which interferes with both job performance and your safety.

Hearing loss isn't easy to notice but with time, overexposure to loud noises decreases our ability to hear. When you're exposed to excessive noise, damage occurs to tiny sensory cells (microscopic hair cells) deep inside your ear, so there's no way to see the damage, and there is no pain.

In industries with hazardous noise, its essential for you to take an annual hearing test. This test helps determine if your hearing is being damaged and what can be done to prevent further damage.

Damage Adds Up Over Time

The consequences of failing to protect your hearing may take years to show up. Prolonged exposure to noise exceeding 85 decibels (dB), about the same loudness as a vacuum cleaner, can cause permanent hearing loss.

Often, the first sign is that you won't be able to hear high-pitched sounds as well as you did before.

Key Characteristics of Hearing Loss

Signs and symptoms of hearing loss may include:

- Muffling of speech and other sounds.
- Trouble hearing consonants.

- Frequently asking others to speak more slowly, clearly and loudly.
- Needing to turn up the volume of the television or radio.
- Difficulty using the phone
- Loss of directionality of sound
- Difficulty understanding speech, especially of children and women whose voices are of a higher frequency.

Associated Risk

Exposure to some of the following examples can affect your hearing:

- Percussion tools—chisels, puches, meat pounders
- Pneumatic tools—air powered tools
- Hammering
- Acoustic Trauma—injury to the inner ear that occurs after exposure to a single, very loud noise or from exposure to noises at significant decibels over a longer period of time.
- Ototoxicants—drugs that affect hearing (such as solvents, heavy metals, and asphyxiates)

Preventative Next Steps

You should wear hearing protection if you're exposed to noise levels:

- More than 85 dBA for 8 hours
 - More than 88 dBA for 4 hours
 - More than 91 dBA for 2 hours
- Try to eliminate the exposure to the loud noise. If this cannot not be done follow the hierarchy of control.
 - Use PPE such as, Ear Plugs, Ear Muffs, Canal Caps or a combination of each depending on the level of the noise.
 - Ensure that noise hazard areas are identified and have signage.
 - Make hearing protection available for workers when entering noise hazard areas.
 - Conduct annual audiometric testing for staff.

Remember that noise is noise. Prolonged exposure to sound levels exceeding 85 dB can cause permanent damage. Your ears don't care whether the noise is being generated by a chainsaw or a chamber orchestra. Without hearing protection, your quality of life can suffer terribly over time.



For additional resources visit:

*Worksafe BC, Hearing Loss Prevention
CCOHS, Hearing protectors*

