



Toolbox Safety Talk Hearing Conservation

Employees who are exposed to hazardous levels of noise in the workplace are at risk for developing noise-induced hearing loss. Noise-induced hearing loss is 100 percent preventable but once acquired, hearing loss is irreversible. Fortunately, the incidence of noise-induced hearing loss can be reduced or eliminated through the successful application of workplace controls and hearing conservation programs, as described in the University's written [Hearing Conservation Program](#).

Hazardous Noise

- Permanent hearing loss (nerve damage) can occur when the ear is exposed to 85 decibels (dB) or higher averaged over an 8 hour work day.
- If workers standing only a few feet apart have to shout or raise their voices to be heard, it is an indication that noise levels are above 85 dB.
- Symptoms of noise induced hearing loss can include ringing in the ears (tinnitus) and difficulty understanding conversation (sound distortion).
- Hearing loss is usually painless and the symptoms can be hard to identify and may go unnoticed.
- Noise that causes pain in the ear is an indication that the noise level is too high.
- Any exposure to the ear at 140dB or higher can cause immediate and permanent hearing loss.

Sound Levels

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|-----------------------|--------|
| • Normal conversation | 60 dB |
| • Vacuum Cleaner | 85 dB |
| • Push Lawnmower | 95 dB |
| • Tablesaw | 100 dB |
| • Chainsaw | 105 dB |
| • Wood Chipper | 110 dB |

Noise Controls

- Engineering Controls - can include equipment substitution or use of sound absorption/insulation materials
- Administrative Controls - rotating employees to reduce the time each person is exposed to the noise
- PPE - earplugs, earmuffs, and canal caps

Hearing Protective Devices

- Noise Reduction Rating (NRR) – the decibel reduction a wearer can expect from a properly fitted hearing protective device.
- Earplugs - have the highest NRR (up to 33 dB) and are inexpensive. Plugs must be inserted properly!
- Earmuffs – form air-tight seal over the ear, NRR up to 30 dB, less effective when using eyewear.
- Canal Caps – lower NRR, use pressure from a headband to hold the earplugs in place.

Hearing Conservation Program

Per OSHA regulation 1910.95, employers must administer a hearing conservation program whenever employee noise exposures equal or exceed the Action Level of 85 decibels 8-hour time-weighted average. This program must include noise monitoring, annual employee training, implementation of noise controls, and annual audiometric testing. Contact EH&S if you have questions or concerns about noise levels in your workspace.

Additional Information can be found on the [EH&S web page](#), as well as the [OSHA web page](#).