



HOW LOUD IS TOO LOUD

Toolbox Talk Lesson Plan

Most of us take our sense of hearing for granted. We assume that *we* hear what everyone *else* hears. Loss of hearing may not be realized until a friend or spouse complains that we do not ever *listen* to them. This is because hearing loss is usually gradual. Normally, it doesn't hurt, so we don't know it is happening. Loss of hearing doesn't affect our everyday routine like losing our eyesight. In fact, it is sometimes it can be a blessing to tune out daily clatter and noise.

Yet our ability to hear *when we want or need to* is precious and must be protected. Employers may reduce the amount of noise in the workplace by enclosing or muffling loud machinery, or rotating out of a particularly noisy task. But they usually can't eliminate it entirely. When you are required to work in an area with high noise levels, for any length of time, it is advisable to wear hearing protection. While some people consider wearing hearing protection a nuisance, the bigger nuisance is not being able to enjoy all there is to hear in your life. Take responsibility for protecting your hearing.

Do not forget that noise exposure off the job can also damage your hearing. In addition to being gradual, hearing loss is also cumulative. The louder and longer your exposure, whether at work, at home, or during recreation, the more likely your hearing will be damaged. The critical sound level when hearing protection should be worn is 85 *decibels* (dBA), averaged over an 8-hour time period. OSHA refers to this as **the Action Level**. The following examples will give you a sense of "how loud is too loud":

Decibels	Comparison / Perception
20	a faint whisper
30-40	quiet pleasant sounds, a bird chirping
40-50	quiet to normal office sounds
50-60	normal conversation
70-90	heavy machinery, electric motors, garbage disposal, city traffic
100-120	jack hammer, power saw, motorcycle, lawn mower, rock music
140+	nearby jet engine, gun shot (this level causes pain)

Many types of disposable or reusable plugs are available and most will reduce noise by about 20-30 decibels. The **Noise Reduction Rating** (NRR) is usually marked on the package. However, since the NRR is established in a laboratory with perfectly fitted earplugs, experts recommend subtracting 7 decibels from the listed NRR to get an **Effective NRR**. Effective NRR for ear muffs are usually closer to the listed NRR. Select a hearing protective device that provides a high enough Effective NRR to reduce the noise to less than 90 dBA, OSHA's **Permitted Exposure Limit (PEL)** for noise.

Some hearing loss is a normal part of aging (**Otosclerosis**). But it is never too early to protect your hearing. Warn all workers of the dangers of high noise. Of course they may not want to listen to you, but if they suffer permanent hearing loss, they may not be able to listen to you.

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