

## SAFETY MEETING TOPIC: Hearing Protection

OSHA Standard: 1910.95 Hearing Protection

Noise is unwanted sound that can effect job performance, safety, and your health. Psychological effects of noise include annoyance and disruption of concentration. Physical effects include loss of hearing, pain, nausea, and interference with communications when the exposure is severe.

Noise levels are measured in decibels (dBA). Normal conversation ranges between 60-65 dBAs. Decibels are measured on a scale like the one for earthquakes. So as the decibels increase only slightly, the noise increases dramatically. Seventy-three decibels is twice as loud as seventy. OSHA has standards that say how long you can be exposed to a particular noise level, before hearing protection is required.

Allowed to be unprotected	At this noise level
Up to 8 hours	90 dBA
Up to 4 hours	95 dBA
Up to 1 hour	105 dBA

Hearing protection is essential when noise exposures can't be controlled at their source or sufficient distance cannot be achieved between you and the source. Both earplugs and earmuffs provide a physical barrier that reduces inner ear noise levels inner ear and prevent hearing loss from occurring. However, people often resist wearing these or use them incorrectly.

Employees resist wearing hearing protection more than any other type of personal protective equipment. One reason is, they don't think they really need it. But hearing loss occurs so gradually (even in intense exposures) that by the time you notice it, irreversible damage has already occurred. Another reason for not wearing hearing protection is that it can feel uncomfortable. Sometimes workers "spring" the muffs so they don't seal properly against the head, or snip off the inner portion of ear plugs leaving only the outer end to fool their supervisor. If you feel the need to do this, see your supervisor about obtaining a different type or style that fits you correctly and comfortably.

Slight initial discomfort may be expected when a good seal between the surface of the skin and the surface of the ear protector is made. The amount of protection you obtain depends on obtaining a good seal and even a small leak can substantially reduce the effectiveness of the protector. Remember to check the seal several times each day. Protectors - especially ear plugs - have a tendency to work loose as a result of talking or chewing, and must be resealed occasionally.

Properly designed, fitted, and clean ear protectors will cause no more discomfort to most workers than wearing a pair of safety glasses. Earplugs are made of soft material such a neoprene to prevent injury to the ear canal. Skin irritations, injured eardrums, or other adverse reactions from using ear plugs are very rare if they are kept reasonably clean.

Some signs that you should be wearing hearing protection include:

1. If you have to raise your voice for someone 3 feet away to hear you, the site is too noisy and you need hearing protection. You need hearing protection also if you're operating on or near noisy equipment.
2. If you have roaring or ringing noises in your ears at the end of the workday, you are probably being exposed to too much noise.
3. If speech or music sounds muffled to you after you leave work, but it sounds fairly clear in the morning when you return to work, you are being exposed to noise levels that are causing a temporary hearing loss. In time, this can become permanent if you do not take care.

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