

THE FACTS

On Noise and Hearing



OCCUPATIONAL AND ENVIRONMENTAL SAFETY

One in 10 Americans have hearing loss that affects their ability to understand normal speech. Excessive noise exposure during work and leisure activities is the most common cause of hearing loss. The factors of hearing loss are how loud the noise is and the exposure time.

Hearing Conservation Program

The Occupational Safety and Health Administration (OSHA) requires hearing protection at 85 dB. Continuous exposure to noise above 85 dB for an 8-hour time weighted average (TWA) requires you to be placed in a Hearing Conservation Program. Employees will then receive annual audiometric testing, training, and hearing protection provided by the employer.

How Is Noise Measured?

Intensity of sound is measured in **decibels** (dB). A sound level meter is used to measure sound. A noise dosimeter is used to integrate sound levels over time. OES can measure the noise in your area.

How Can I tell if a Noise is Dangerous?

Generally, noise may cause damage to your hearing if:

- You must shout over background noise to be heard.
- The noise hurts your ears.
- The noise makes your ears ring.
- You have difficulty hearing for several hours after exposure to the noise.

It is important to know that noise levels below 85 dB may be a nuisance noise but will not affect your hearing.

How does hearing loss happen?

The human ear has three main parts: the outer, middle, and inner ear. The inner ear is where hearing loss occurs. When noise is too loud, it begins to kill the nerve endings in the inner ear. As the exposure time to loud noises increases, more and more nerve endings are destroyed. As the number of nerve endings decreases, so does your hearing. There is no way to restore life to dead nerve endings.

The chart below lists different decibel levels and an example of noises they would be comparable to.

Approximant Decibel Level	Example
0	Faintest sound that can be heard.
30	Whisper, quiet library.
60	Normal conversation.
90	Lawnmower, shop tools.
100	Chainsaw, pneumatic drill.
115	Sandblasting, loud rock concert.
140	Gun blast, jet engine.



What You Can Do

- Contact OES to measure sound levels if you think your work area is noisy.
- Hearing protection must be worn in work environments at or above 85 dB.
- Hearing protection should also be worn when operating noisy machinery or power tools.

Contact Us!

Occupational and Environmental Safety (OES)

656-0341

[Hearing Conversation Program](#)