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Hearing Conservation for Managers



Hearing Conservation for Managers

Course description

The National Institute for Occupational Health and Safety reports that nearly 22 million Americans are exposed to potentially damaging workplace noise every year. As an employer, you must meet the standards outlined by the Federal Occupational Health and Safety Administration (OSHA) for hearing conservation. In this course, we'll discuss the responsibilities of you and your company when it comes to protecting your employees from hearing loss. We'll go over the human ear, how it works, and how hearing loss happens. We'll also talk about what is required of you under OSHA's hearing conservation program including measuring noise levels, training, and recordkeeping.

Biology

- The human ear has three parts:
 1. The outer ear
 2. The middle ear
 3. The inner ear
- Sound waves are collected by your outer ear and transmitted down the ear canal to your ear drum.
- The eardrum vibrates which moves three tiny bones in your middle ear.
- This continued vibration moves into the cochlea, a spiral- shaped tube full of fluid in your inner ear.
- Tiny hair cells pass signals via thousands of nerve endings to your brain.

Hearing loss

- High levels of noise can hurt your ears.
- Noise can:
 - Rupture your eardrum
 - Damage the three bones in the middle ear
 - Impair the tiny hair cells that relay information to auditory nerves
- Most of the time, hearing loss cannot be repaired or restored.

Employer requirements

- Hearing damage can occur at 85 decibels or higher.
- If employees are exposed to an eight hour, time weighted average (TWA) of 85 decibels, you're required to monitor and share the results of your program with employees.

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Employer requirements (cont.)

- The monitoring must include all typical noises such as:
 - Continuous sounds
 - Intermittent sounds
 - Impulsive sounds

Measuring noise

- Most workplaces use either a sound level meter or a dosimeter to measure noise.
- A sound level meter will measure the intensity of a sound at a particular time.
 - Depending upon the workplace, you might be required to move the sound level meter to get a more accurate sample.
 - If you're unsure, check with the manufacturer or your OSHA representative.
- A dosimeter uses a mic that's either attached to a worker's clothing or positioned in a work area to take sound level measurements over a given amount of time.
 - It calculates an average of the noise exposure.
- The employer is responsible for ensuring that the equipment is properly calibrated and functional.
- Checking the equipment should be included in your biannual maintenance workflow.

Hearing conservation program

- If your workplace is over the 85 decibel threshold, you must start a hearing conservation program.
- It's your responsibility to read the entire OSHA hearing conservation standard to make sure you're compliant.
- Check and understand any state or local laws that may be applicable to your workplace.

Audiometric testing

- Employers should provide routine audiometric testing for their employees.
- It's required for all employees within six months of the first time an employee is exposed at or above the eight-hour TWA of 85 decibels.
- Getting this baseline allows you to monitor any hearing decline.
- Audiometric testing must be overseen by a licensed or certified audiologist, otolaryngologist, or other physician, but an audiometric specialist can do the actual testing.

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Audiometric testing (cont.)

- After the initial baseline is taken, you must provide an audiogram each year to check for hearing deterioration.
- Hearing professionals will look for a Standard Threshold Shift (STS) of 10 decibels or more.
- You must share hearing test results with your employees.
- Recommend visiting a physician if there's a STS.

Hearing protection

- OSHA requires employers to provide hearing protection to all employees exposed to eight-hour TWA noise levels of 85 decibels or more.
- OSHA allows employers to select hearing protection based on:
 - Noise reduction rating requirements
 - Individual budget
- You must give your staff the choice of earplug and muff-style hearing protection devices.
- You must train your staff on how to safely use the protectors.
- You must make using equipment mandatory.

Engineering controls

- Engaging engineering controls is another way to protect your team.
- These include:
 - Barriers or blocking devices
 - Maximizing distance between employees and sound sources
 - Rotating in different high noise areas

Training and recordkeeping

- Regarding training, you're required to:
 - Train employees regarding the proper use of hearing protection
 - Inform your team about the damaging effects of high decibel noise
 - Provide details of audiometric testing
- Regarding recordkeeping, you're required to:
 - Document the results of the noise monitoring
 - This record must be kept for at least two years
 - Store the results of audiometric testing, including:
 - The details of the test location
 - Name of who conducted the test
 - The equipment used

Application Questions

1

List the various noise levels in your workplace.

2

Are there areas of the Hearing Conservation Program where your company needs to improve? What part of the program do you follow well?