Can You Answer Questions About Noise?

Q: During his/her work shift, an employee is exposed for seven hours at 85 dB, with a one-hour lunch and breaks in a quiet environment. Does this employee need to be in a hearing conservation program?

A: No

Q: Is an STS of 10 dB recordable on the OSHA 300 log?

A: No, unless the threshold of hearing is 25 dB or greater above audiometric 0 as a result of the STS

Q: Must employees wear hearing protection when exposed to noise levels above 85 dB?

A: No, unless exposed above 90 dB, or they have shown a Standard Threshold Shift

Q: How often do employees exposed to noise levels above 85 dB have to be trained?

A: Annually
Tennessee OSHA has instituted a Special Emphasis Program for occupational noise exposure and hearing conservation. During all health and safety inspections the TOSHA compliance officer or consultant will make the employer aware of the Special Emphasis Program on noise and measure the noise levels in the workplace. Interventions will be made where there are noise levels above 85 decibels (dB). TOSHA laws for occupational noise exposure require a Hearing Conservation Program when noise exposures exceed 85 dB averaged over eight hours.

**Reasons People Lose Their Hearing**

People think noise is no threat to them because noise is not like an air contaminant that they can smell or see.

The initial injury to their hearing is not evident and may be hard to detect.

Noise-induced hearing loss is cumulative, and serious damage may take 10-20 years to become evident.

Employees who are exposed to high levels of noise feel no pain associated with the noise in the 85-100 dB range.

**What Can Noise Do To You?**

Excessive noise can destroy the ability to hear and may also put stress on other parts of the body, including the heart. Workers exposed to noise sometimes complain of nervousness, sleeplessness, and fatigue. When the ability to hear is affected, there is no cure. The damage done by noise depends mainly on how loud it is and on the length of exposure. The frequency or pitch can also have some effect, since high-pitched sounds are more damaging than low-pitched sounds. Noise may tire out the inner ear, causing temporary hearing loss. After a period of time away from noise, hearing may be restored. With continued noise exposure, the ear will lose its ability to recover from temporary hearing loss, and the damage will be permanent. Permanent hearing loss results from the destruction of hair cells in the inner ear — cells that can never be replaced or repaired. Normally, workplace noise first affects the ability to hear high-frequency (high-pitched) sounds. This means that even though a person can still hear some sounds, speech or other sounds may be unclear or distorted. Distortion occurs especially when there are background noises or many people talking. A hearing aid can make speech louder, but not make it clearer.

**Suggestions For Employers**

- Monitor noise exposures to determine who is exposed above an eight-hour time-weighted average of 85 dB. You can buy or rent a sound level meter or arrange for a consultant from your workers’ compensation carrier or other consultant to conduct the survey.
- Develop, implement, and maintain (at no cost to employees) a hearing conservation program. For an acceptable program you must do the following:
  - Conduct mandatory annual hearing tests
  - Make hearing protectors available
  - Make hearing protectors mandatory above 90 dB
  - Conduct annual training on the effects of noise
  - Keep accurate records of audiograms and review them to ensure that your program is effective

- Often employees feel hearing protection is too much trouble, and when audiograms are reviewed by employers, appropriate action is not always taken.
- The importance of using hearing protection is not always explained to employees.
- Workers often believe hearing loss is normal, and there is a false belief that medical science can correct noise-induced hearing loss.

- Employees who are exposed to high levels of noise feel no pain associated with the noise in the 85-100 dB range.