



GOALS

This safety session teaches employees to:

- Identify hazards of excessive noise in the workplace.
- Understand measures required to prevent harmful noise exposure.

Applicable Regulations: 29 CFR 1910.95, Occupational noise exposure



1. What are the hazards of excessive noise?

- Long-term exposure to high levels of noise can cause permanent hearing loss.
 - Neither surgery nor a hearing aid can help correct this type of hearing loss.
- Short-term exposure to loud noise can also cause a temporary change in hearing—ears may feel stuffed up, or you might experience ringing in the ears (tinnitus).
- Loud noise can also create physical and psychological stress, reduce productivity, interfere with communication and concentration, and contribute to workplace accidents and injuries by making it difficult to hear warning signals.
- Noise-induced hearing loss limits your ability to hear high-frequency sounds and understand speech and seriously impairs your ability to communicate.

2. How do you know if you are exposed to excessive noise?

- The Occupational Safety and Health Administration (OSHA) sets legal limits on workplace noise exposure on a time-weighted average over an 8-hour day.
 - The permissible exposure limit for noise is 90 decibels (dB) averaged over an 8-hour day.
- The National Institute for Occupational Safety and Health (NIOSH), however, recommends that exposures to noise should actually be controlled below 85 dB to minimize the risk of occupational hearing loss.
- Generally speaking, noise may be a problem in your workplace if:
 - You hear ringing or humming in your ears when you leave work.
 - You have to shout to be heard by a coworker an arm's length away.
 - You experience temporary hearing loss when leaving work.

3. What can be done to protect against excessive noise?

- Three methods of protecting workers from excessive noise are (1) engineering controls, (2) administrative controls, and (3) personal protective equipment (PPE).
- Engineering controls may include:
 - Using low-noise tools and machinery or modifying equipment to reduce noise emissions;
 - Maintaining and lubricating machinery and equipment;
 - Placing a barrier between the noise source and employee (sound walls or curtains; or
 - Enclosing or isolating the noise source.



- Administrative controls may include:
 - Limiting the amount of time a worker spends in a high-noise environment;
 - Providing quiet areas where workers can gain relief from hazardous noise sources; *or*
 - Keeping workers far enough away from noisy equipment to minimize exposure.
- PPE may include earmuffs, earplugs, or a combination of the two in very noisy areas.
 - Always wear required hearing protection in noisy work areas.
 - Note that cotton balls or earbud headphones will not protect your hearing.

4. What is the purpose of a hearing conservation program?

- Employers are required to have a hearing conservation program if workplace noise levels are 85 dB or higher based on a time-weighted average over an 8-hour day.
- Key elements of a hearing conservation program include:
 - Workplace noise sampling as well as personal noise monitoring;
 - Alerting workers at risk from hazardous levels of noise exposure;
 - Providing hearing tests for workers exposed to excessive noise;
 - Implementing follow-up procedures for workers who show a loss of hearing;
 - Selecting and requiring the use of effective hearing protection; *and*
 - Training and information that ensures you are aware of the hazards of excessive noise and how to protect yourself from harmful exposure.

5. What is your risk of experiencing hearing damage due to excessive noise?

- Although thousands of workers annually suffer preventable hearing loss due to high noise levels, you can work safely without risk if you take proper precautions to protect your hearing.
- Have your hearing tested regularly.
- Report any hearing problems to your supervisor, and have your hearing tested.
- Wear hearing protection at home when performing noisy tasks such as using power tools.



DISCUSSION POINTS:

Identify areas in your facility where hearing protection is required and discuss other methods used to reduce noise to safe levels, such as engineering and administrative controls.



CONCLUSION:

- Once you suffer hearing loss, you can't get it back.
- Exposure to high levels of noise can cause permanent hearing loss. Make sure you always take necessary precautions on the job and at home to protect your hearing.



TEST YOUR KNOWLEDGE:

Have your employees take the Working Safely in Excessive Noise quiz. By testing their knowledge, you can judge their ability to work safely in noisy areas to protect their hearing and whether they need to review this important topic again soon.



WORKING SAFELY IN EXCESSIVE NOISE QUIZ

- Hearing loss due to workplace noise exposure is always only temporary.**
 - True
 - False
- Exposure to loud noise can:**
 - Be stressful
 - Interfere with communication
 - Both a and b
- High noise levels could increase your chance of having an accident on the job.**
 - True
 - False
- Personal protective equipment (PPE) is not effective in preventing hearing loss if you are exposed to excessive noise every workday.**
 - True
 - False
- Since the Occupational Safety and Health Administration (OSHA) has not set a permissible noise exposure limit, it is up to you to decide whether to wear hearing protection on the job.**
 - True
 - False
- You can tell noise is a problem in your workplace if:**
 - You hear ringing or humming in your ears when you leave work.
 - You have to shout to be heard by a coworker an arm's length away.
 - Both a and b.
- Engineering and administrative controls are used to protect you against excessive noise exposure along with:**
 - PPE
 - Earbud headphones
 - Both a and b
- OSHA requires employers to have a hearing conservation program if workplace noise levels rise above 80 decibels (dB).**
 - True
 - False
- A hearing conservation program must include workplace noise sampling.**
 - True
 - False
- What should you do if you experience hearing problems at work?**
 - Wait a few weeks to see if they go away.
 - Tell your supervisor.
 - Get a hearing aid.

When you have completed this quiz, turn it in to your supervisor.

Name: _____ **Date:** _____



ANSWERS TO WORKING SAFELY IN EXCESSIVE NOISE QUIZ

1. b. False. Long-term exposure to high levels of noise can cause permanent hearing loss. Neither surgery nor a hearing aid can help correct this type of hearing loss.
2. c. Both of these are effects of excessive noise exposure.
3. a. True. You might be unable to hear safety instructions or hazards warnings.
4. b. False. The right kind of PPE is very effective in preventing hearing loss. Always wear required hearing protection. Be sure to use appropriate hearing protection at home, too, when performing noisy tasks like working with power tools.
5. b. False. OSHA has set a permissible noise exposure limit of 90 dB based on a time-weighted average over an 8-hour day. However, the National Institute for Occupational Safety and Health (NIOSH) recommends that you actually begin wearing hearing protection at the lower noise level of 85 dB.
6. c. Both of these are indications of a noise problem. So is experiencing temporary hearing loss when you leave work.
7. a. The three methods of protecting against excessive noise hazards in the workplace are (1) engineering controls, (2) administrative controls, and (3) PPE. An earbud will not protect your hearing and should never be used in place of assigned PPE, such as earmuffs or earplugs.
8. b. False. OSHA requires employers to have a hearing conservation program if workplace noise levels rise above 90 dB.
9. a. True. It also includes such other requirements as training for employees at risk, hearing testing, and selecting appropriate PPE for employees.
10. b. Tell your supervisor immediately about any hearing problems at work, and have your hearing tested.