# Hearing Conservation Quiz


**QUESTION**

How do employers improve the success of hearing loss prevention initiatives and efforts with their employees’

**ANSWER**

Employers must strengthen and fortify worker training programs by addressing not only the **knowledge** of the people involved but also their **attitudes and behaviors.**

- **Knowledge:** Understanding how noise can be harmful and how hearing protection and noise controls can reduce risks.
- **Attitudes:** The belief that hearing is valuable and the personal desire, to protect it.
- **Behaviors:** Learning how to protect yourself in noise and consistently practicing those skills.

**WHY IS IT RIGHT**

**NOISE ‘ OCCUPATIONAL HEALTH**

Noise, or unwanted sound, is one of the most pervasive occupational health problems. It is a by-product of many industrial processes. Sound consists of pressure changes in a medium (usually air), caused by vibration or turbulence. These pressure changes produce waves emanating away from the turbulent or vibrating source. Exposure to high levels of noise causes hearing loss and may cause other harmful health effects as well. The extent of damage depends primarily on the

intensity of the noise and the duration of the exposure.

## TEMPORARY/PERMANENT HEARING LOSS

Noise-induced hearing loss can be temporary or permanent. Temporary hearing loss results from short- term exposures to noise, with normal hearing returning after period of rest. Generally, prolonged exposure to high noise levels over a period of time gradually causes permanent damage.

## NOISE ‘ SERIOUS AND PREVENTABLE WORKPLACE HAZARD

The vehicle to combat this hazard is through the implementation of an effective **Comprehensive Hearing Conservation Program**

There are seven key features to this program

- Noise measurement;
- education and training;
- engineered noise control;
- hearing protection devices;
- the posting of signs warning of noise hazards and the need for hearing PPE;
- annual hearing tests;
- an annual program review.

## WHY IS EVERYTHING ELSE WRONG

## TRAIN / MOTIVATE EMPLOYEES TO PROTECT HEARING

Without the **‘buy-in’** of employees there is not much of a chance to have an effective occupational Hearing Conservation Program (HCP)

Even a well-designed HCP can fall short of the goal of preventing Noise-Induced Hearing Loss (NIHL) if the employees don’t know how excessive noise exposure can harm them or haven’t learned the behaviors that are necessary to reduce their risk. Employers may be able to improve the success of

their hearing loss prevention efforts by strengthening worker training programs to address not only the KNOWLEDGE of the people involved but also their ATTITUDES and BEHAVIORS.

- **KNOWLEDGE:** Understanding how noise can be harmful and how hearing protection and noise controls can reduce the risks
- **ATTITUDES:** The belief that hearing is valuable and the personal desire to protect it
- **BEHAVIORS:** Learning how to protect yourself in noise and consistently practicing those skills

## Active Learning

One of the keys to successful training is to incorporate **active learning**. People learn and retain more information when they are actively involved in the learning process. The good news is that employee training programs don’t have to be expensive or time consuming. Whether you develop and conduct training yourself or hire an expert to do it for you, many of the tools and methods are available and ready to use or customize to your workforce. With some creativity and effort to make the materials engaging and relevant to the work being done at your facility you can boost the effectiveness of your training program.

## The Training Guidelines

- Employers must train employees exposed to TWAs of 85 dB and above at least annually in the effects of noise;
- the purpose, advantages, and disadvantages of various types of hearing protectors;
- the selection, fit, and care of protectors;
- the purpose and procedures of audiometric testing.

## THE FINALE / CORE OF AN EFFECTIVE HEARING CONSERVATION PROGRAM

- Identify and assess areas and activities where employees may be exposed to:

- high noise levels that may exceed 85 decibels (dBA) averaged over an eight-hour period,
- extreme noise levels of 115 dBA at any time (greater than one second)
- extreme impact noise levels of 140 dBC (less than one second)
- Reduce or control noise using engineering and administrative controls, where feasible.
- Post signs at noisy areas and require hearing protectors.
- Identify employees who need hearing protection.
- Provide hearing protectors to employees and train them in their use.
- Provide baseline and annual audiometric hearing exams to employees.

## RESPONSIBILITIES OF MANAGERS, SUPERVISORS AND INVESTIGATORS

- Identify areas of excessive noise and affected employees.
- Coordinate sound level surveys and personnel monitoring for noise exposure, conducted by EH&S, to provide a quantitative assessment of noise hazards in your workplace.
- If employees are exposed to noise above 90 dBA averaged over the work shift, implement engineering or administrative controls.
- Ensure individuals exposed to noise levels at or above 85 dBA averaged over an 8-hour work shift are enrolled in the Hearing Loss Prevention Program, receive training and medical surveillance.
- Ensure employees are provided with baseline and annual audiometric exams at the UW Speech and Hearing Clinic, or equivalent, through EH&S.
- Ensure staff has taken the Hearing Conservation training.
- Provide at least two types of hearing protectors to

employees if controls cannot be implemented, and for all employees exposed to noise levels at or over 85 dBA averaged over an 8-hour work shift, greater than 115 dBA any time and 140 dBC impact noise any time.

- Ensure hearing protectors are worn properly.
- Post caution signs where noise may exceed 85 dBA averaged over an 8-hour work shift.
- Post danger signs where noise may exceed 115 dBA, even intermittently.
- Ensure that reports of high noise are investigated.
- Maintain records as required.

## RESPONSIBILITIES OF EMPLOYEES

- Report elevated noise levels, noisy equipment and hearing protector problems to supervisor.
- Take training on Hearing Conservation.
- Choose the most comfortable, effective hearing protection devices that fit well. Remember that the BEST protector is one you'll wear. Earplugs are available in different sizes and shapes to fit different ear canals; earmuffs are easy to put on and take off for short-term loud noise exposure. A combination of earmuffs and earplugs may be needed.
- Wear hearing protectors in posted noise areas.
- Keep hearing protectors clean and replace when necessary.
- Take baseline and annual audiogram tests.