

## Noise

Occupational hearing loss is the most common work-related injury in the United States. According to National Institute of Occupational Health (NIOSH), approximately 22 million U.S. workers exposed to hazardous noise levels at work, and an estimated \$242 million is spent annually on worker's compensation for hearing loss disability.

Exposure to high levels of noise can cause permanent hearing loss. Neither surgery nor hearing aid can help correct this type of hearing loss. Short term exposure to loud noise can also cause a temporary change in hearing or a ringing in your ears (tinnitus). These short-term problems may go away within a few minutes or hours after leaving the noisy area, but repeated exposures to loud noise can lead to permanent tinnitus and/or hearing loss.

Additionally, loud noise can create physical and psychological stress, reduce productivity, interfere with communication and concentration, and contribute to workplace accidents and injuries. Hearing loss can interfere with our ability to enjoy socializing with friends and participating in other social activities we enjoy.

In 1981, OSHA implemented new requirements to protect all workers in general industry for employers to implement a hearing Conservation Program where workers are exposed to a time weighted average noise level of 85 dBA or higher over an 8 hour work shift. Hearing Conservation Programs require employers to measure noise levels, provide free annual hearing exams and free hearing protection, and provide training.

**Noise controls** are the first line of defense against excessive noise exposure. There are several ways to control and reduce worker exposure to noise in a workplace:

1. Engineering controls (for example: modifying or replacing equipment, changes at the noise source, placing barriers between noise source and employee) .
2. Administrative controls (for example: operating noisy machines during shifts when fewer people are exposed, restricting worker presence to a suitable distance away from noise equipment)
3. Hearing Protection Devices when administrative and engineering controls are not feasible.

### Types of Hearing Protectors:

- Earmuffs: which can reduce noise by as much as 15-30 decibels. Earmuffs are often used in conjunction with ear plugs to protect the employee from extremely loud noises. This double hearing protection ( earmuffs and earplugs) required to be worn in areas > 100 dBA (example: condensate booster pumps) when in area more than 15 minutes.
- Ear plugs: Formable or foam ear plugs, if placed in the ear correctly, will expand to fill the ear canal and seal against the wall:
  - With clean hands, firmly roll entire ear plug between thumb and fingers to form a thin tight cylinder.
  - Using opposite hand, gently lift top of ear up to open ear canal.
  - With other hand, insert rounded end of ear plug. The plug, having been compressed, should be placed into the ear canal and held in place for about 10 seconds to allow for expansion of the ear plug.
  - With forefinger, hold ear plug in place until it expands to form a comfortable, snug fit. Ear plugs must be inserted properly for optimum performance.
- Canal Caps: generally provide less protection than ear muffs or plug.

**Hearing Loss: Myths & Facts - Safety Training Video -...**



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