

HEARING PROTECTION FACTS

Noise in the workplace

How to protect worker's health

Did you know?

Noise in the workplace is a potential hazard in many different occupations including for example construction, fish harvesting, manufacturing and forestry. Noise can be controlled in various ways to protect the health of workers; finding the best way for the individual work site is important.

Every year in this province workers are diagnosed with noise induced hearing loss that may have developed gradually over time, the result of loud impact or impulsive noise.

What is a hearing conservation program?

A hearing conservation program is a written document that aims to protect workers from the negative health effects of noise exposure.

Noise exposure quick facts

What are the health effects associated with noise exposure?

- The main health effect of exposure to noise is loss of hearing. This is irreversible and will continue to worsen if the worker remains exposed.
- Non-auditory effects may include potential effects on the cardiovascular system.
- The social and emotional implications are numerous. With hearing loss there

are restrictions in social activities, increased frustration because of the hearing difficulties and potential increased risk of accidents in the workplace if the worker is unable to hear the warning devices or alarms.

- Noise may negatively affect pregnant workers, increasing stress on the mother and baby and potentially impair the unborn baby's hearing.

Is noise a potential hazard at my workplace?

It is the employer's responsibility to recognize noise as a potential health hazard and determine which workers may be over-exposed. The Occupational Health and Safety Regulations specify the requirements for the permissible level for noise. In accordance with Section 68, the daily average exposure for an eight-hour work shift, 40-hour work week must not exceed 85 decibels (dB). If the work shift is longer than eight hours, the exposure limit must be adequately adjusted. No exposure above 140dB is permitted. Therefore, in order to determine if noise is a potential issue in the workplace, a noise assessment must be conducted. This can either be conducted in-house if there are trained personnel on site, or through the use of a private consultant.

As a general guideline, if you are not able to speak to another person an arm length away (approximately three metres) without raising your voice, noise may be an issue.

For more information on the development and implementation of this and other programs, contact Prevention Services at: **709.778.1552** or toll free **1.800.563.9000**

WorkplaceNL

Health | Safety | Compensation

HEARING PROTECTION FACTS

Noise in the workplace

How to protect worker's health continued

How is noise measured in the workplace?

Noise measurements may be taken in two ways: instantaneous or spot measurements that will map out the areas where noise may be a concern; and full-shift noise dosimetry that will measure a worker's personal noise exposure during the entire shift. The noise measurements taken should be representative of the worker's exposure. For example, if there is a day and night shift where different equipment is used it may be necessary to conduct sampling on both shifts. The noise survey should also represent a typical day at the work site. This will ensure that judgements and decisions made consider a worker's risk of developing noise induced diseases and ensure the appropriate controls are implemented.

If noise exceeds permissible levels, employers must develop a hearing conservation program which contains the following as a minimum requirement:

- a noise survey of the workplace
- controls including elimination, substitution, engineering and administrative controls and personal protective equipment (PPE)
- selection, use, care and maintenance of PPE
- education and training for workers overexposed to noise
- annual hearing testing for overexposed workers
- program evaluation conducted on a regular basis

How can noise be controlled in the workplace?

The first step to control noise must be to attempt to reduce the noise levels below the acceptable limits – to eliminate the noise exposure. When this is not possible other ways must be considered such as but not limited to:

- Engineering controls – isolate the noise (eg. build an enclosure around noise generating equipment), use sound barriers, use damping techniques, install materials to absorb the noise, insulate rooms, purchase tools and machinery that generate lower noise levels, operate equipment at a lower speed, balance rotating parts, etc.
- Administrative controls – adjust worker schedules, limit the time spent in the noise
- PPE – only to be used as a last resort after other controls have been considered. If PPE is used, signage must be posted stating a noise hazard exists and the PPE required

Do workers have to receive education and training regarding noise?

All workers who are over-exposed to noise must receive education and training to ensure they are aware of the program, the health hazards related to noise, the noise levels in the workplace and the controls that are implemented. If PPE is used, workers must receive education and training on the selection, fitting, use, care and maintenance of the hearing protection. Such education and training is normally conducted at the same time as the annual hearing testing. It is also important that the OHS committee/WH&S representative/ WH&S designate participate in this training.

Do workers have to undergo hearing testing?

All workers who are overexposed to noise must have their hearing tested on an annual basis or as recommended by an audiologist or occupational physician. A hearing test must be completed within three months of employment in a job where a worker is exposed to noise above the permissible levels.

Since workers may change jobs, it is beneficial for workers to keep a record of their noise exposure. When leaving a job, a worker may request a record of noise exposure during their time of employment.

Selected Workplace Noises Measured in Decibels

