

HEARING PROTECTION FACTS

Hearing Protection

What are you hearing?

Personal Protective Equipment (PPE) Information Series

Did you know?

Workplace noise is one of the most common occupational health hazards in Newfoundland and Labrador. The main health effect of overexposure to loud noise is permanent noise induced hearing loss which will continue to worsen if the worker remains exposed. Non-auditory health effects include potential stress on the cardiovascular system including high blood pressure. Noise can also pose communication problems at the workplace and may be an indirect safety hazard if workers are not able to hear warning alarms. If noise is a potential issue in the workplace, a noise assessment must be conducted and steps taken to control the exposure. The first steps must include: attempting to eliminate the noise, implementing engineering controls, administrative controls and finally the use of Personal Protection Equipment (PPE) – in this case hearing protection.

Quick facts

Noise Measurement – Decibels (dB)

- Noise is measured in units called decibels (dB).
- The higher the decibel, the louder the noise.
- The best hearing protection devices are ones worn correctly and consistently.
- Workers who have hearing loss and wear hearing aids still require proper PPE to protect against further damage. Turning off hearing aids is not appropriate.
- Workers overexposed to noise must get their hearing tested yearly.

Legislative Requirements for Hearing Protection

- In accordance with legislative requirements, during an eight-hour work day, 40-hour work week, the average daily exposure to noise must not exceed 85dB.
- If the shift is greater than eight hours, this daily limit must be appropriately adjusted.
- No exposure above 140 dB is permitted.
- For more information consult Sections 68, 71 and 72 of the Occupational Health and Safety Regulations.

Role of PPE – Hearing Protection

When noise cannot be reduced below the acceptable levels, appropriate hearing protection must be worn!

Education and Training

Workers must receive education and training on the fit, use, care and maintenance of a protective hearing device. Such education and training is normally completed at the time of a workers' annual hearing testing.



November 2014

For more information on Hearing Protection in the workplace contact WorkplaceNL Prevention Services at: **709.778.1552** or toll free **1.800.563.9000**

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What are you hearing? continued

Types of PPE - Hearing Protectors

When worn correctly, hearing protectors reduce noise exposure levels and risk of hearing loss. Appropriate and effective hearing protection must be worn at all times in noisy workplaces. There are many different types of hearing protective devices, each with pros and cons. Always select appropriate equipment and use it consistently.

Types of hearing protection include:



- Ear plugs – can be pre-moulded (preformed) or mouldable (foam ear plugs) or custom moulded. They are sold as disposable or reusable plugs which make them convenient. They are also compact and useful in situations where other PPE such as glasses and respirators are being worn.



- Semi-insert ear plugs (Canal caps) - worn under the chin which makes them useful if workers are in and out of noisy situations throughout the shift. They are easy to insert and remove.



- Ear muffs – highly visible, quickly retrievable, and useful if a worker's hands are dirty or they are wearing gloves.

Selection of Hearing Protection

Choosing the correct hearing protection depends on many factors, one of which includes determining an appropriate device that will help reduce the noise levels reaching the ear. A device should not block out too much sound, otherwise a worker may feel isolated by the silence. In order to select the correct PPE, determine the noise level in the workplace. For guidance, refer to CSA Z94.2-02 "Hearing Protection Devices – Performances, Selection, Care and Use". In general, many occupations exposed to noise have daily average exposures less than 95dB. This would require a Class B/Grade 1/2 device; greater than 105dB, will likely require the use of dual hearing protection.

Important factors when selecting effective hearing protectors

- the daily noise exposure of the worker
- who will be wearing the equipment and any physical constraints of the worker
- compatibility with other PPE that must be worn
- workplace conditions such as temperature and humidity
- comfort level and individual preferences
- ease of use and handling
- communication needs of the worker
- cause pain to the wearer, it will create a feeling of slight pressure and there should be resistance when it is pulled on.
- Compressible (foam) earplugs come in different shapes and sizes to fit different ear canals. Find one that provides a good fit.
- Earmuffs must provide a good fit over the outer ear and must be cleaned on a regular basis.
- Earmuffs should be stored by hanging the headband on a hook.
- When earmuffs are kept attached to a hard hat, they should be stored so that the cuffs are not pressing on the hat. This can compress the cuffs and reduce their effectiveness.
- Hearing protection must be inspected on a regular basis and if damaged, it must be replaced immediately.

Use, care and maintenance of hearing protection

- For an earplug to be inserted correctly it must completely block the ear canal. While this does not