# Noise – Hearing Conservation Program Fact Sheets

**IS A HEARING CONSERVATION PROGRAM REQUIRED IN ALL JURISDICTIONS IN CANADA?**

Eight jurisdictions specifically require a hearing conservation program when:

- Noise exceeds the jurisdiction's occupational exposure limit (four jurisdictions: Federal, British Columbia, Newfoundland and Labrador, and Prince Edward Island).
- Noise exceeds 85 dBA (three jurisdictions: Northwest Territories, Nunavut, and Saskatchewan).
- There is excess noise (one jurisdiction: Alberta).

Six jurisdictions do not have a specific requirement for a hearing conservation program (Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, and Yukon).

However, as per Occupational Health and Safety legislation across Canada, employers have a duty to provide a safe work environment and take all reasonable precautions to protect the health and safety of employees and others in the workplace. This duty is known as due diligence. To exercise due diligence, an employer should work with the health and safety committee (or representative) to create and implement hearing conservation program when needed. Check with your jurisdiction for more guidance.

**When is a hearing conservation program recommended?**

The employer should conduct a noise assessment at the workplace, according to the CSA Standard Z107.56 Measurement of Noise Exposure, if:

- a worker is or is likely to be exposed to noise in excess of 80 dBA
- there is
    - an alteration, renovation or repair of the workplace
    - new equipment introduced in the workplace, or
    - a modification done to a work process, that may result in a significant change in a worker's exposure to noise.

Note the requirement when to conduct a noise assessment (e.g., dBA level) may vary from jurisdiction. Conducting an assessment at an action level of 80 dBA provides more protection.

**What are the elements of a hearing conservation program?**

If noise monitoring confirms that workers are exposed to noise levels at or above 85 dBA, a hearing conservation program should be developed and implemented. The program includes a policy and procedure. The CSA Standard Z1007 Hearing Loss Prevention Program Management recommends that a hearing conservation program include the following elements:

- Hazard identification and exposure monitoring
- Control methods (using the hierarchy of controls)
- Hearing protection devices (selection, use, and maintenance)
- Audiometric testing
- Hazard communication, education, and training
- Recordkeeping, and
- Continuous monitoring and improvement (program review).

**How should noise exposure be controlled?**

The employer should make sure that, if reasonably possible, measures are taken to reduce noise levels using the hierarchy of controls in the following order before providing hearing protection devices:

- Eliminate the hazard
- Engineering control
- Substitution of equipment, and
- Administrative controls.

**When are hearing protection devices needed?**

The majority of the jurisdictions require that employers provide hearing protection devices when noise levels are at or above 85 dBA. The value of 85 dBA is also based on good practice guidelines set out by organizations such as the Centers for Disease Control. CSA Standards Z94.2 Hearing Protection Devices – Performance, selection, care, and use and Z1007 Hearing Loss Prevention Program Management also recommend that hearing protection devices be used when engineering controls or administrative controls are not practicable or do not reduce noise exposure to acceptable levels (i.e., below 85 dBA).

**What should be done when hearing protection is needed?**

The employer should make sure that the selection, care, and use of hearing protection devices meet the specifications outlined in the CSA Standard Z94.2.

The employer should make sure that a worker using the hearing protection device is adequately trained and instructed by a competent person in selection, fit, use, care, maintenance, and inspection.

The choice of hearing protectors is a personal one, and depends on a number of factors, including but not limited to acoustics, comfort, and the suitability of the hearing protector for both the worker and the environment. Where protectors must be used, provide a choice of different types when possible. Having choice encourages use, and protection can only be effective if it is properly and consistently used. Anatomy of the ear and ear canal can vary significantly making comfort and individual preferences important.

**When is audiometric testing needed?**

Audiometry is an important part of the hearing conservation program. It is the only

way to determine if a hearing loss is occurring or being prevented. Although existing hearing loss cannot be cured, the data can be used to:

- Identify persons for follow-up and counselling
- Determine trends
- Make decisions on control measures
- Motivate employees to use protective equipment
- Create education opportunities
- Trigger changes in the program

Ten jurisdictions require audiometric tests when a worker's noise exposure is greater than:

- the jurisdictional occupational exposure limit (five jurisdictions: Alberta, British Columbia, Newfoundland and Labrador, Prince Edward Island, and Quebec)
- 85 dBA (four jurisdictions: Manitoba, Northwest Territories, Nunavut, and Saskatchewan)
- 80 dBA (one jurisdiction: Yukon)

One jurisdiction requires annual audiometric testing for those working in an underground mine or when Commission has reason to believe that a worker is or may be affected with an occupational disease (New Brunswick). There is no specific audiometric testing requirement in three jurisdictions (Federal, Nova Scotia, and Ontario).

Generally speaking, audiometric testing is recommended when a worker is exposed to noise levels greater than 85 dBA. Audiometric testing should be conducted according to CSA Standard Z107.6 Audiometric Testing for Use in Hearing Loss Prevention Programs, which outlines specifications for the testing facility, the equipment used, and those in charge of conducting audiometric tests.

The CSA Standard Z1007 Hearing Loss Prevention Program Management recommends that audiometric testing involves:

- an initial hearing test, and
- a hearing test at least once every 12 months after the initial test, or
- a hearing test more frequently should the noise level exceed 105 dBA.

**What is recommended for hazard communication?**

If it is not practicable to reduce noise levels to or below the noise exposure limits, the employer should post clearly visible warning signs at every approach to an area in the workplace in which the sound level:

Exceeds 80 dBA – clearly marked with a sign that states "Warning" and identifies the range of noise levels

Exceeds 85 dBA – clearly marked with a sign that states "Warning" and specifies that workers are required to wear single hearing protection device

Exceeds 105 dBA – clearly marked with a sign that states "Warning" and specifies that workers are required to wear double hearing protection devices

**What should be included in worker education and training?**

Education and training should be provided to workers who are required to wear hearing protection devices. The education and training should cover all elements listed in CSA Z94.2 (i.e., selection, fit, use, care, maintenance, and inspection). The

education and training should be repeated, as recommended in the Standards, at regular intervals and at least once every two years.

Education and training may include information about:

- Why use hearing protection
- When should protective equipment be worn, in what work areas, during what work activities
- How should hearing protectors be selected and worn
- Who is responsible for taking care of the protective equipment
- How to take care of the protective equipment (storage, cleaning, etc)
- Company policy requirements for noise control and hearing conservation
- Legislative requirements

**What type of records and documents should be kept?**

Keeping records of your assessment and any control measures implemented is very important. You may be required to store the records and documents for a specific number of years. Check for local requirements in your jurisdiction.

The level of documentation or record keeping will depend on:

- Level of risk involved.
- Legislated requirements.
- Requirements of any management systems that may be in place.

Your records should show that you:

- Conducted a good hazard review.
- Determined the risks of those hazards.
- Implemented control measures suitable for the risk.
- Reviewed and monitored all hazards in the workplace.

The results of the audiometric test itself may be considered a medical record, and as such, can only be released with the worker’s written consent. The audiometric technician or organization may need to keep the results of the hearing test for a period of time as specified in by the jurisdiction.

**What should be included in a program review or evaluation?**

A program review or evaluation is done by auditing each of the program’s steps and seeing how well they are being executed. For example, ask the following questions:

- Are all elements or steps in place?
- Is it necessary to re-test or monitor the noise exposures?
- Are there periodic education and training sessions?
- What are the results from the audiometric tests?
- Have changes in processes or equipment resulted in reduced hearing losses?
- Do existing noise controls appear to be in good working condition and being used?
- Have any modifications been made to controls, possibly reducing their effectiveness?
- Is hearing protection available? Is it stored and maintained properly?
- Are workers wearing their protection? Have they noted any issues?
- Are warning signs posted where they are necessary?
- When new machinery or equipment is being purchased, is “buying quiet” considered in the decision process?
- Are further changes necessary to protect workers?