EMPLOYER'S GUIDE

Meeting your Legislative Requirements for MSI Prevention

This guide will provide information on the minimum legislative requirements that every workplace must incorporate into their safety management systems based on Sections 50-56 of the Newfoundland and Labrador Occupational Health and Safety Regulations.

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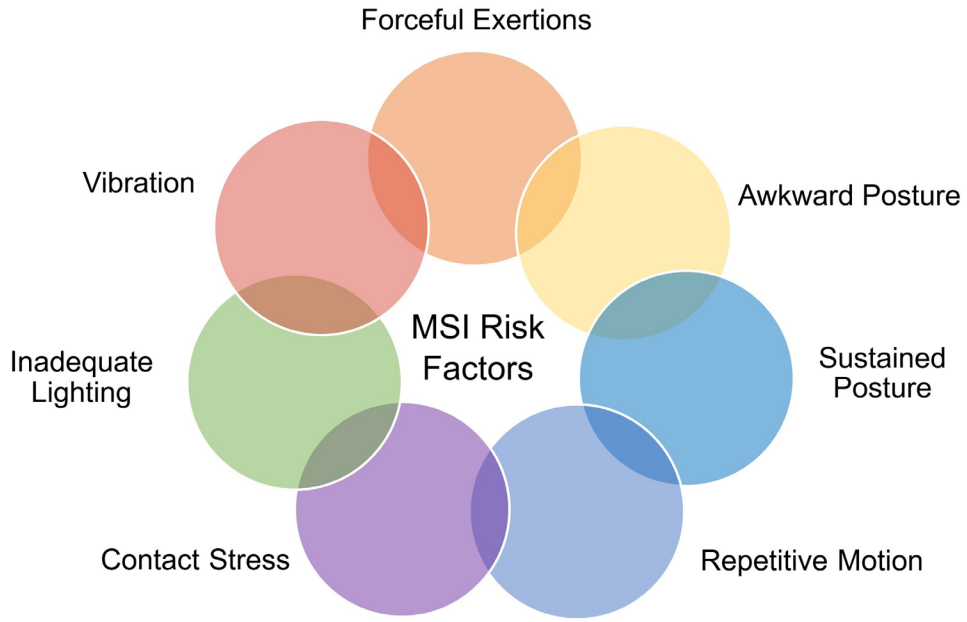
Musculoskeletal Injury Prevention

A musculoskeletal injury (MSI) is a painful disorder of the muscles, tendons, ligaments, nerves, spinal discs, or related soft tissues. MSIs include repetitive strain and overexertion injuries like sprains, strains, and inflammation that may be caused or aggravated by work.

Despite being almost entirely preventable, MSIs occur in every industry and account for the majority of lost-time claims and costs in workplaces every year.

Employers are responsible for recognizing factors in the workplace that may expose workers to a risk of MSI, and priority should be given to jobs that have caused MSI in the past and that are high risk.



Generally, there will be more than one risk factor in a given work activity. This may be due to the nature of the activity but may also be related to the personal characteristics of different workers; for example, their height.

Employers are to evaluate the risk to workers presented by the identified factors. The objectives are to determine the extent of impact of the factors on the potential for MSI, and the relative risk to workers or groups of workers. Achieving these objectives will assist with establishing priorities for controlling the risks.

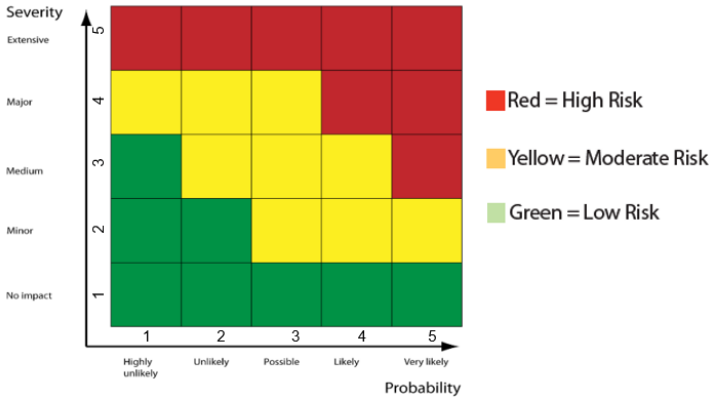
Musculoskeletal Injury Prevention (cont.)

The two most important factors in assessing the degree of risk are:

- Severity of the potential MSI
- Probability of an MSI occurring as a result of that hazard

Both the severity and the probability of the hazard are ranked independently on a numerical scale. Then they are multiplied to determine risk.

Risk evaluation should be completed by people who have a good understanding of the work process and the methods for performing risk evaluations, as well as the applications and limitations of the methods being used. Workers and the OHS Committee, WHS Representative or WHS Designate must be consulted during risk evaluation.

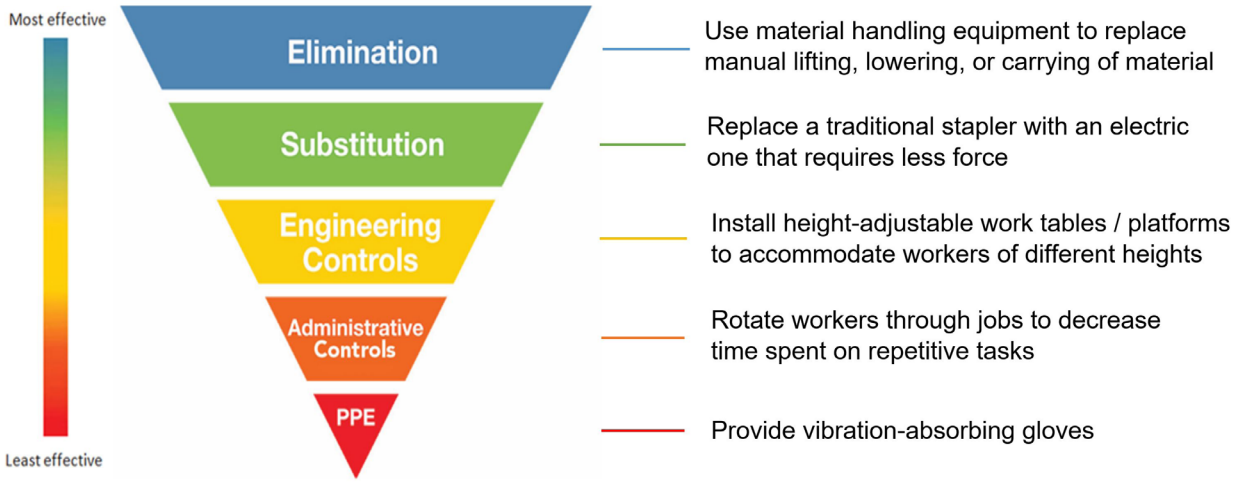


For More Information:

- Section 50, NL OHS Regulations
- MSI Safety Talk Toolkit
- OHS Explanation Guide (Revised), Digital Government and Service NL

Risk Control

Where MSI risk factors have been identified and evaluated, employers are required to eliminate, or where elimination is not practicable, minimize the risk of MSI to workers. This is to be accomplished by implementing control measures, which may include one or more of the following:



The goal is to achieve the highest level of worker protection available; therefore, the most effective control measure is to eliminate the hazard. Physically removing a hazardous task, tool, process, body position or machine is the best way to protect workers.

Personal protective equipment (PPE) is used along with engineering and administrative controls and should never replace them. PPE includes articles that can be worn or attached to a worker and place a barrier between the worker and the hazard.

Without delay, interim control measures are to be implemented when the introduction of permanent control measures are delayed. "Delayed" in this context means delaying the introduction of permanent control measures for reasons related to practicability; for example, the cost, or time required to develop control measures, may require that they be phased in over a period of time.

"Interim control measures" must be applied to minimize risk while more effective or long-term solutions are being developed. Employers are not authorized to delay the introduction of practicable control measures for other reasons.

Care should be taken to ensure that the reduction of the risk of MSI from one factor does not increase the risk from another.

Risk Control (cont.)

As a general rule, risk factors for most commonly performed tasks must be considered first. The primary risk factors to consider normally include awkward and sustained postures, the force required, and repetition.

Effective controls for MSI hazards are not always elaborate or expensive. Often a simple change in a work process, workstation, or tool is effective; for example, raising a worker's computer monitor onto a stack of books to minimize awkward neck posture.

For More Information:

- Section 51, NL OHS Regulations
- OHS Explanation Guide (Revised), Digital Government and Service NL

Education and Training

Workers who are, or may be, exposed to a risk of MSI are to be educated about the risks related to their work. They must be able to recognize the MSI risk factors they may be exposed to for a work activity they perform, as well as **the early signs and symptoms** of MSI and the **potential health effects** of the risk factors. Because all work has a physical component, risk factors are likely to be identified in the majority of jobs (e.g., from lifting a box to sitting behind a desk).

Early signs and symptoms of MSI include, but are not limited to:

- Pain or discomfort
- Reduced range of motion at a joint
- Swelling, redness
- Tingling, numbness
- Weakness when trying to perform a natural action like grasping

Potential health effects may include any number of musculoskeletal injuries or disorders. Examples include carpal tunnel syndrome, tendonitis, trigger finger, sprains, strains, bursitis, spinal disc disorders and tension neck syndrome.

Workers must be **trained in the use of specific control measures**, including, where applicable, work procedures, mechanical aids and personal protective equipment. In this case, "trained" refers to the provision of practical information so that the affected workers understand why a control measure is in place and can effectively apply the control measures in their work.

Education and Training (cont.)

Workers should be able to demonstrate an understanding of the education and training. It may be useful to ask workers about the risk factors present in their job and if there are specific procedures or equipment they use to reduce the risk. Sample questions for the worker could include:

- What are some early signs and symptoms of MSI, and what could happen if they are ignored?
- Who should you report any signs and symptoms of MSI to?
- What are the risks of MSI in your job?
- What can be done to reduce the risk of MSI in your job?

Training is most effective when it is practical, specific and hands-on.

For More Information:

- Section 52, NL OHS Regulations
- OHS Explanation Guide (Revised), Digital Government and Service NL

Consultation

Employers are required to consult with workers and the OHS Committee, WHS Representative or WHS Designate regarding the proper use of ergonomics for the prevention of MSI. Consultation should take place both **before and after** a modification or control measure is implemented and should also be documented. This provides for more effective monitoring of control effectiveness.

During a risk assessment process, employers must consult with **workers** who have signs and symptoms of MSI, as well as a representative sample of the workers performing the work that is being assessed. A "representative sample" means, in addition to workers with signs or symptoms, a cross-section of workers, having regard to differences in age, shift schedule, gender, size (e.g., height, weight), and work location (climatic conditions can vary considerably, and clothing or icy surfaces may result in different levels of risk for similar tasks). The sample size will depend on how many applicable differences there are in the group.

Sometimes worker participation is the missing link in an organization's attempt to prevent MSI. Workers have first-hand knowledge of their tasks and how the design of their workstation, tools, equipment, etc., influences how they do their job. They know when they are in pain and discomfort and usually have a good understanding of the causes. Workers also have very good practical ideas for making their work safer and more comfortable.

The **OHS Committee, WHS Representative or WHS Designate** should be consulted when regularly reviewing the MSI prevention process. They support and help the employer implement the MSI Prevention process and collaborate with all levels of the organization.

A workplace where MSI prevention is at the forefront is a workplace where everyone knows and understands their own and others' roles and responsibilities. When everyone is involved in the process for developing and linking roles and responsibilities for MSI prevention, the likelihood of compliance is increased.

For More Information:

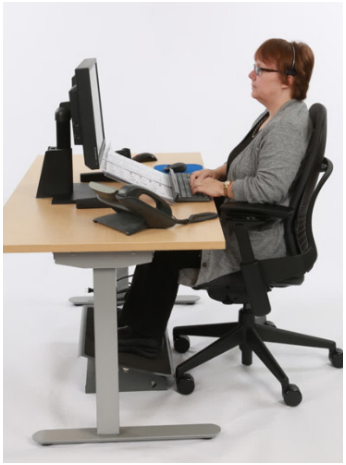
- Section 54, NL OHS Regulations
- OHS Explanation Guide (Revised), Digital Government and Service NL

Seating and Standing Work

Continuous standing or sitting while working is a common cause of discomfort and fatigue. Frequent changes in body position, a well-designed workstation, taking microbreaks and scheduled breaks, and stretching all help to avoid MSI.

Employers are to provide workers the opportunity to sit without detriment to their work and provide and maintain suitable seating to enable them to take advantage of that opportunity.

In some occupations, there is less opportunity for changing postures due to the nature of the work. For example, long-haul truck drivers have few tasks to alternate between and the work requires them to sit and drive for several hours a day. Where a substantial proportion of work is done while seated, an employer must provide and maintain seating that is suitably designed, constructed, dimensioned and supported for the worker to do the work. A footrest may be provided to comfortably support the feet.



For workers who are required to stand for long periods in the course of their work, the employer or contractor must provide an antifatigue mat, footrest or other suitable devices to provide relief. Standing is a natural human posture and by itself poses no particular health hazard. However, working in a standing position on a regular basis can cause sore feet, swelling of the legs, varicose veins, general muscular fatigue, low back pain, stiffness in the neck and shoulders, and other health problems. These are common complaints among salespeople, machine operators, assembly-line workers and others whose jobs require prolonged standing.

As humans, we are designed to **MOVE** and work best when active. It is not the sitting or standing alone that will cause harm; it is the amount of time spent doing it without suitable equipment, proper breaks and movement.

For More Information:

- Section 55, NL OHS Regulations

Lifting and Handling

Lifting and handling loads, also known as manual materials handling, can be physically demanding work. Lifting and handling involve the activities of lifting, pushing, pulling, carrying, handling or transporting loads. By reducing the amount and type of manual handling that a worker must do, fewer injuries such as sprains, strains, and back injuries may be experienced by workers. Further benefits are increased efficiency, productivity and reduced product loss through damage.

Suitable equipment should be provided for workers to use when handling heavy or awkward loads such as equipment, goods, supplies, persons and animals. In many cases, the equipment will cost little; in others, a meaningful investment may be necessary.

In some situations, it may not be reasonably practical for the employer to provide equipment. In such a case, employers have two options:

- Adapt loads to make it easier for workers to lift, lower, push, pull, carry, handle or transport without injury (e.g., reduce load weight, reduce size of packaging); or
- Minimize the amount of manual handling that is required (e.g., rotate workers, reorganize the work method to eliminate repeated handling).

In most cases, loads should be pushed rather than pulled. The body has greater push forces as workers can lean their body weight into the load. When workers use pull forces such as pulling a load with an arm stretched behind the body, it places the shoulder and back in an awkward posture and uses greater pull forces to move the load. This increases the likelihood of shoulder and arm injury.

When workers need to manually handle loads, they need to assess the most efficient way to do the task. The basic principles must be followed in lifting, lowering and moving loads: contract the core muscles that surround the trunk to improve spine stability, keep the natural curve in the spine and lower back, bend at the hips, avoid twisting, and keep the load as close to the belly button and body as possible.

For More Information:

- Section 56, NL OHS Regulations
- OHS Explanation Guide (Revised), Digital Government and Service NL