



# SAFE WORK

**S** SPOT THE HAZARD  
**A** ASSESS THE RISK  
**F** FIND A SAFER WAY  
**E** EVERYDAY

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## Musculoskeletal Injury Risk Identification and Assessment

The Manitoba Workplace Safety and Health Act, W210, and Part 8 of Manitoba Workplace Safety and Health Regulation, M.R. 217/2006, require specific actions to prevent musculoskeletal injuries (MSI) at the workplace.

This document will help employers and workers understand jobs/tasks that may present a risk of MSI, and guide workplace parties in performing MSI risk identifications and assessments.

### **MSI Risk Identification:**

“**musculoskeletal injury**” means an injury or disorder of the muscles, tendons, ligaments, joints, nerves, blood vessels or related soft tissue, including a sprain, strain or inflammation that may occur to a worker in a workplace and that is caused or aggravated by any of the following:

- (a) a repetitive motion;
- (b) a forceful exertion;
- © vibration;
- (d) mechanical compression;
- (e) a sustained or awkward posture;
- (f) a limitation on motion or action;
- (g) any other factor that creates a risk of musculoskeletal injury.

*When a risk for MSI has been identified at the workplace, the employer must ensure an assessment is performed. This assessment may be performed by competent workplace parties or outside experts.*

A job is identified as containing risks for MSI when:

- 1) A MSI is reported to the Workers Compensation Board;
  - 2) A job/task has a history of causing MSIs (sprain/strain/overexertion/repetitive motion);
  - 3) A worker reports signs or symptoms of a MSI;
  - 4) Safety and health committee identifies a risk of MSI; and
  - 5) A Safety and Health Officer identifies a risk of MSI
- In workplaces of 20 or more workers, MSI risks must be included in the content of the Workplace Safety and Health program as outlined in the Workplace Safety and Health Act W210 sec. 7.4(5)
  - The process to identify and assess MSI risks is simplified and consistent when using a standardized internal procedure/form.
  - Communicating known MSI risks to workers, encouraging workers to report risks and make recommendations for control measures will assist a workplace in preventing and reducing MSIs.
  - Refer to Safe work Bulletin # 247 Recognizing MSI risks for a sample MSI risk identification form.

**MSI Risk Assessment:**

The assessment determines:

- What area/part of the workers body is at risk of MSI;
- The MSI hazards, if any, within a job/task;
- The direct (root) cause of these hazards (e.g. worker interaction with equipment, processes, other human factors, materials, or environment); and
- If these risks are considered hazardous. If so the employer is required to implement control measures (Manitoba Regulation 217/2006 Part 8.1(1)(b)).

A simple MSI risk assessment may involve recording the answers to the following questions. (Ask workers and supervisors who are performing, or have experience performing the job/task):

- 1) "Where in your body are you sore/tired at the end of a hard day?"
- 2) "What part(s) of the job/task causes you to feel sore/tired?"
- 3) "What do you think can be changed about the job/task to reduce this soreness/fatigue?"
- 4) "How long has this soreness/fatigue been going on, and has it gotten worse, better, or remained constant?"

There may be jobs/tasks where the employer and experienced workers are unable to identify, or agree upon, all of the MSI risks or their direct (root) causes. In these cases, a more formal assessment may be required. A formal assessment will make use of scientifically-validated MSI risk assessment tools, and require a higher level of

*In all instances of MSI assessment, the findings must be reviewed with appropriate workers and workplace parties, to ensure accuracy, and completeness.*

experience and expertise than simple risk assessments.

**List of simple MSI risk assessment resources** (See links below)

- 1) Ergonomic Analysis Worksheet – Appendix B - Ergonomics program guideline
- 2) Ergonomic Risk Factor Checklist – Appendix D - Ergonomics program guideline
- 3) MSD Hazard Identification Tool – Musculoskeletal Disorder Prevention tool box - Occupational Safety and Health Council of Ontario

A completed MSI risk assessment must be:

- 1) Summarized in a report including the following:
  - a. Past history of MSI for the job/task;
  - b. The findings of the MSI assessment in *plain language*;
  - c. Area(s) of the worker's body at risk of MSI; and
  - d. The direct (root) cause(s) of the hazards.
- 2) Reviewed by the employer, supervisor, and worker(s) to determine if there is agreement on the direct (root) causes of the MSI risk(s). If no agreement is reached on the direct (root) causes, a formal MSI risk assessment may be needed to determine the employer's requirement to implement control measures.
- 3) Communicated with the safety and health committee.
- 4) Integrated into the job hazard analysis and used to update the corresponding safe work procedure.
- 5) Used when determining control measures for jobs/tasks in cases where the assessment has identified MSI hazards.
- 6) Used during the development of worker and supervisor training.

**Additional Resources**

Manitoba Ergonomics program guideline – Simple assessment tools

- <http://www.gov.mb.ca/labour/safety/guidelines.html>

Manitoba Workplace Safety and Health Division – General Information

- <http://www.gov.mb.ca/labour/safety>

Ontario Musculoskeletal Disorder Prevention tool box – Simple assessment tool

- [http://www.iapa.on.ca/documents/MSD\\_2006%20Prevention\\_Toolbox.pdf](http://www.iapa.on.ca/documents/MSD_2006%20Prevention_Toolbox.pdf)

Ontario musculoskeletal disorder prevention guideline and resource manual – General info

- [http://www.iwh.on.ca/products/msd\\_guideline.php](http://www.iwh.on.ca/products/msd_guideline.php)