

INTRODUCTION

Section 4.47 of the Ergonomics (MSI) Requirements requires the employer to identify factors in the workplace that may expose workers to a risk of musculoskeletal injury (MSI). This document can assist in identifying factors that pose a risk of MSI. If a risk is identified, a moderate or high risk of MSI exists and requires assessment and control. For a complete guide, refer to the WorkSafeBC's publications *Preventing Musculoskeletal Injury (MSI): A guide for employers and joint committees* and *Understanding the Risks of Musculoskeletal Injury (MSI): An educational guide for workers on sprains, strains, and other MSIs*.

Instructions

1. **Document** the job title or task, date and name of persons completing the worksheet.
2. **Observe** a representative sample of workers performing regular work activities.
3. **Read** the minimum criteria listed under each risk factor.
 - Duration (e.g., 2 hours total per day) refers to the total time per day the worker is exposed to the risk factors, not the duration of the work activity that includes the risk factor. However, when duration is associated with repetition (using the same motion every few seconds), it refers to the total duration of that task over the course of the day.
 - If exposure to a risk factor (e.g., 2 hours total per day) is continuous, the risk to workers will be significantly greater than intermittent exposure distributed over a shift.
4. **Check** the assessment box for that risk factor if any criteria listed are present.
5. **Write** notes for any identified risk factor to clarify the task or duty where it occurs.
 - Risk factors marked in the box pose at least moderate risk to workers and require further assessment and control.
6. **Go to** *Worksheet B - MSI Risk Factor Assessment* if any risk factors are identified. Fill out the Risk Factors Summary Table to summarize the risk factors identified on Worksheet A.

Note: Worksheets A and B do not address all MSI risk factors; however, these risks must still be assessed if present in the workplace. For example:

- **Contact stress** that includes kneeling and tools digging into the skin is addressed in *MSI Prevention Guidance Sheet: Local Contact Stresses*
- The force required to **push, pull, and carry** loads is addressed in *MSI Prevention Guidance Sheet: Pushing/Pulling Carrying* and WorkSafeBC's on-line *Push/Pull/Carry Calculator*
- **Cold temperature** is addressed in *MSI Prevention Guidance Sheet: Cold Temperature*

WORKSHEET A

MSI RISK FACTOR IDENTIFICATION

Job Title or Task: _____ Date: _____

Completed By: _____

Notes:

Employer Representative

Worker Representative

CONTACT STRESS

If any of the following criteria are present, mark the assessment box → Perform Contact Stress Assessment

Description	Notes
Worker uses one of the following as a hammer more than 10 times per hour and for more than 2 hours total per day <ul style="list-style-type: none"> • Hand (heel/base of palm), or • Knee 	

REPETITION



If any of the following criteria are present, mark the assessment box → Perform Repetition Assessment

Description	Notes
<ul style="list-style-type: none"> • Worker repeats the same motion with the neck, shoulders, elbows, wrists, or hands every few seconds with little or no variation for more than 2 hours total per day (excluding typing) 	
<ul style="list-style-type: none"> • Worker performs intensive typing more than 4 hours total per day 	

GRIP FORCE

If any of the following criteria are present, mark the assessment box →

Perform Grip Force Assessment

Description	Notes
<p>PINCH GRIP</p> <ul style="list-style-type: none"> Pinch gripping unsupported objects weighing 1 kg (2 lb.) or more per hand for more than 2 hours total per day <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Pinch gripping with a force of 2 kg (4 lb.) or more per hand for more than 2 hours total per day <div style="text-align: right;">  <p>Pinch Grip</p> </div>	
<p>POWER GRIP</p> <ul style="list-style-type: none"> Power gripping unsupported objects weighing 5 kg (10 lb.) or more per hand for more than 2 hours total per day <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Power gripping with a force of 5 kg (10 lb.) or more for more than 2 hours total per day <div style="text-align: right;">  <p>Power Grip</p> </div>	

Note: A pinch grip occurs when the force application is primarily between the fingers and thumb.
A power grip occurs when the force is primarily between the fingers and the palm.

LIFT/LOWER FORCE

If any of the following criteria are present, mark the assessment box →












Perform Lift/Lower Assessment

Description	Notes
<ul style="list-style-type: none"> Lifting objects weighing more than 34 kg (75 lb.) once per day 	
<ul style="list-style-type: none"> Lifting objects weighing more than 25 kg (55 lb.) more than 10 times per day 	
<ul style="list-style-type: none"> Lifting objects weighing more than 5 kg (10 lb.) if done more than twice per minute, more than 2 hours total per day 	
<ul style="list-style-type: none"> Lifting objects weighing more than 11 kg (25 lb.) more than 25 times per day and <ul style="list-style-type: none"> - Above the shoulders, or - Below the knees, or - At arms length from the body 	

AWKWARD POSTURE

If any of the following criteria are present, mark the assessment box →

Perform Posture Assessment

Description	Notes
<p>NECK</p> <ul style="list-style-type: none"> Working with the neck bent more than 30° in any direction for more than 2 hours total per day <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <input type="checkbox"/> Side </div> <div style="text-align: center;">  <input type="checkbox"/> Backward </div> <div style="text-align: center;">  <input type="checkbox"/> Forward </div> </div>	
<p>SHOULDER</p> <ul style="list-style-type: none"> Working with the hand(s) above the head more than 2 hours total per day Working with the elbow(s) above the shoulder more than 2 hours total per day <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <input type="checkbox"/> Above head </div> <div style="text-align: center;">  <input type="checkbox"/> Above shoulder </div> </div>	
<p>BACK</p> <ul style="list-style-type: none"> Working with the back bent more than 30° in any direction for more than 2 hours total per day <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <input type="checkbox"/> Forward </div> <div style="text-align: center;">  <input type="checkbox"/> Side </div> <div style="text-align: center;">  <input type="checkbox"/> Backward </div> <div style="text-align: center;">  <input type="checkbox"/> Twist </div> </div>	
<p>KNEES</p> <ul style="list-style-type: none"> Worker squats/ kneels more than 2 hours total per day <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <input type="checkbox"/> Squatting </div> <div style="text-align: center;">  <input type="checkbox"/> Kneeling </div> </div>	

VIBRATION

If any of the following criteria are present, mark the assessment box →

Perform Vibration Assessment

Description	Notes
<ul style="list-style-type: none"> Use high vibration tools (impact wrenches, chain saws, jack hammers, riveting hammers) for more than 30 minutes total per day 	
<ul style="list-style-type: none"> Use moderate vibration hand tools (grinders, sanders, jig saws) for more than 2 hours total per day 	