

WORKSHEET “A”

MSI RISK FACTOR IDENTIFICATION

INTRODUCTION

Section 4.47 of the Ergonomics (MSI) Requirements requires an 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 WCB documents “*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 person(s) completing the worksheet.
2. **Observe** a representative sample of workers performing regular work activities.
3. **Read** the minimum criteria listed under each risk factor.
 - If the magnitude is significantly greater than criteria referenced (e.g. pinch grips objects significantly greater than 1 kg), the duration component must be reduced.
 - Duration (for example, 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) or frequency (for example, more than once per minute), it refers to duration per day of the repetitious task.
 - If exposure to 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 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 - Risk Factor Assessment” if any risk factors are identified. Fill out the “Risk Factors Summary – Moderate Risk” to summarize the risk factors identified on Worksheet A.

Note: Some aspects of contact stress (e.g. hand tools digging into skin) and force (e.g. pushing/pulling/carrying loads) are not included. Also, some risk factors (e.g. cold temperature, characteristics of objects handled) are not addressed. Persons using these worksheets need to address them separately and minimize the risk to workers.

WORKSHEET "A"

MSI RISK FACTOR IDENTIFICATION

Job Title or Task: _____

Date (mm/dd/yr): _____

Completed By: _____

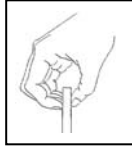
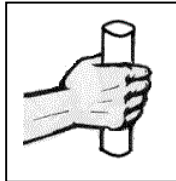
Notes:

Employer Representative

Worker Representative










CONTACT STRESS	IF ANY OF THE FOLLOWING CRITERIA ARE PRESENT, MARK THE ASSESSMENT BOX	<input style="width: 40px; height: 20px; border: 1px solid black;" type="checkbox"/> PERFORM CONTACT STRESS ASSESSMENT
1	<ul style="list-style-type: none"> Worker uses the 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 <p>(An extremely severe contact stress usually results in a traumatic injury such as bruising and therefore is not considered an MSI risk factor.)</p>	<p>Notes</p>

REPETITION	IF ANY OF THE FOLLOWING CRITERIA ARE PRESENT, MARK THE ASSESSMENT BOX	<input style="width: 40px; height: 20px; border: 1px solid black;" type="checkbox"/> PERFORM REPETITION ASSESSMENT
1	<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 keying activities) 	<p>Notes</p>
2	<ul style="list-style-type: none"> Worker performs intensive keying more than 4 hours total per day 	

FORCE		For the purposes of MSI risk identification, force can be classified as grip force, or lift/lower force	
GRIP FORCE	IF ANY OF THE FOLLOWING CRITERIA ARE PRESENT, MARK THE ASSESSMENT BOX	<input type="checkbox"/>	PERFORM GRIP FORCE ASSESSMENT
Pinch Grip**	<ul style="list-style-type: none"> Pinch gripping an unsupported object(s) <u>weighing 1 kg (2 lbs.)</u> 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 <u>with a force of 2 kg (4 lbs.)</u> or more per hand for more than 2 hours total per day 		Notes
	Pinch Grip 		
Power Grip**	<ul style="list-style-type: none"> Power gripping an unsupported object(s) <u>weighing 5 kg (10 lbs.)</u> 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 <u>with a force of 5 kg (10 lbs.)</u> or more for more than 2 hours total per day 		
	Power Grip 		

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	<input type="checkbox"/>	PERFORM LIFT/LOWER ASSESSMENT
1	<ul style="list-style-type: none"> Lifting objects <u>weighing more than 75 lbs.</u> once per day 		Notes
2	<ul style="list-style-type: none"> Lifting objects <u>weighing more than 25 kg (55 lbs.)</u> more than 10 times per day. 		
3	<ul style="list-style-type: none"> Lifting objects <u>weighing > 5 kg (10 lbs.)</u> if done more than twice per minute, more than 2 hours total per day 		
4	<ul style="list-style-type: none"> Lifting objects <u>weighing more than 11 kg (25 lbs.)</u> 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 → <input type="checkbox"/>	PERFORM POSTURE ASSESSMENT
<p>Neck</p>	<p>Worker performs <u>any</u> minimum joint deviations:</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;">  Side </div> <div style="text-align: center;">  Backward </div> <div style="text-align: center;">  Forward </div> </div> <p>(circle the appropriate movements)</p>	<p>Notes</p>
<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 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;">  Forward </div> <div style="text-align: center;">  Side </div> <div style="text-align: center;">  Backward </div> <div style="text-align: center;">  Twisted </div> </div> <p>(circle the appropriate movements)</p>	
<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;">  </div> <div style="text-align: center;">  </div> </div> <p>(circle the appropriate movements)</p>	

VIBRATION	IF ANY OF THE FOLLOWING CRITERIA ARE PRESENT, MARK THE ASSESSMENT BOX → <input type="checkbox"/>	PERFORM VIBRATION ASSESSMENT
<p>1</p>	<ul style="list-style-type: none"> Use high vibration tools (impact wrenches, carpet strippers, chain saws, jack hammers, scalers, riveting hammers) for more than 30 minutes total per day 	<p>Notes</p>
<p>2</p>	<ul style="list-style-type: none"> Use moderate vibration hand tools (grinders, sanders, jig saws) that typically have moderate vibration levels more than 2 hours total per day 	