

# VICTORIA UNIVERSITY HEALTH AND SAFETY PROCEDURE

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**Review/Revise Date:**

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## ERGONOMIC/MSD PREVENTION PROGRAM

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### PURPOSE

The purpose of this procedure is to the prevention of musculoskeletal disorders (MSDs) through the creation of awareness of musculoskeletal disorders (MSDs) and the hazards associated with them, assessment of MSD risks in the workplace and implementing appropriate controls to reduce the risk of MSDs in the workplace.

### SCOPE

This procedure applies to all faculty and staff of Victoria University.

### DEFINITIONS

Ergonomics- the science of matching the job to the worker and the product to the user.

Musculoskeletal Disorders (or MSD) is an injury to the musculoskeletal system, which is made up of muscles, tendons, nerves, joints, spinal discs and other tissues. Many body areas can be affected. The most commonly affected is the low back, shoulders, neck, elbow, hands and wrists. MSDs have also been referred to as repetitive strain injury (RSI), repetitive motion injuries, cumulative trauma disorder (CTD), occupational cervicobrachial disorders, overuse syndrome, regional musculoskeletal disorders, musculoskeletal injury (MSI), soft tissue disorders, sprains and strains.

### ROLES AND RESPONSIBILITIES

#### **Employers shall:**

- Have legal responsibilities for health and safety and must “take every precaution reasonable” to protect workers.
- Integrate ergonomics into the health and safety program.
- Make MSD hazard recognition training available to all workers.
- Ensure supervisors know how to recognize MSD hazards and know what to do if a worker reports a concern.
- Conduct ergonomic assessments.
- Implement appropriate controls to reduce MSDs in the workplace.

- Annually evaluate and update this program.
- Communicate evaluation results and acknowledge successes as required by this program.

**Supervisors shall:**

- Have legal responsibilities for health and safety and must “take every precaution reasonable” to protect workers.
- Ensure workers are aware of MSD hazards in their job and MSD warning signs.
- Ensure workers use equipment and protective devices properly.
- Encourage workers to report signs and symptoms of MSD early.
- Respond promptly to worker reports of MSD signs and symptoms.
- Include MSD hazard recognition as part of regular inspections.
- Provide training for workers on general MSD awareness.
- Participate in all stages of identifying, recognizing, and controlling MSD hazards within their department.
- Maintain records pertaining to training, communication, hazard identification, hazard analysis, and accident/incident investigation.

**Workers shall:**

- Attend training sessions to ensure they have been trained to do their job safely and know the hazards/factors that could cause MSDs.
- Report any signs and/or symptoms of MSDs to their supervisor (e.g. discomfort, numbness, tingling and/or pain).
- Report any unsafe acts, hazards, equipment problems, or any other unsafe tasks immediately to their supervisor.
- Cooperate with accident/incident investigations and with MSD hazard identification and assessment activities.
- Correctly use equipment provided by the employer and use appropriate body mechanics as per MSD prevention training provided (e.g. lift properly)
- Go to supervisor with questions, concerns, or requests for additional ergonomics/MSD hazard related training.
- Offer suggestions to improve working conditions to supervisor.

**Joint Health & Safety Committee**

- Get training on recognizing, assessing, and controlling MSD hazards.
- Actively look for MSD hazards during activities such as workplace inspections and accident/incident investigations.
- Participate in an annual review of this program.

<b>PROCEDURES</b>
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**General**

- New equipment and/or tools will have ergonomic design principles considered prior to purchase or modification by the Department Managers.

**MSD Hazard Recognition**

- MSD Hazards will be identified using the following process:
  - Recognize jobs with **existing** MSD issues by:

- Reviewing accident/incident investigation reports.
- Reviewing discomfort surveys/reports of concerns.
- Hazard assessments
- Recognize jobs with **potential** MSD issues by:
  - Understanding the MSD hazards; posture, force, repetition, as well as other contributing factors.
  - Using the MSD Hazard Identification tool (Form 2) – completed by Supervisor.
  - Observations during workplace inspections.
  - Talking to workers.

### **Reporting Discomfort/Pain/Injury**

- All workers will report to their supervisor if they are experiencing pain or discomfort while performing their duties or have sought medical aid or lost time due to an MSD (see [Office Ergonomics Guideline](#)).
- The supervisor is required to complete an investigation as per the 'Accident Incident Reporting Response and Investigation Procedure' and complete an Accident/Incident and Critical Injury Form.

### **Equipment and Process MSD Hazard Assessment (non-office)**

- MSD hazards will be identified through a general hazard assessment which may identify when a further MSD assessment is required to be conducted by a third-party ergonomist.
- If there is a concern about an MSD, the supervisor will use the MSD Hazard Identification Tool (Form 2) identify any MSD risks factors that may be present.
- The people/person completing the MSD screening assessment will recruit at least one worker from the job/task being assessed to assist and provide additional information for the assessment.
- The MSD Hazard Identification Tool (form 2) will include observing the task, jobs or process to identify MSD risks including:
  - Awkward postures
  - Force (lifting, impact, etc.)
  - Repetition
- The MSD Hazard Identification assessment will include reviewing any:
  - Reports about worker concerns, pains and discomfort.
  - Information related to MSD claims for the job/task.
  - Information and concerns related to absenteeism and productivity.
- The people/person completing the MSD screening assessment will determine:
  - If an MSD hazard exists.
  - The type of MSD hazard(s) existing within the task.
  - The root cause of the hazard (the team should consider the following contributing factors: people, equipment, materials, environment, and process) – Accident/Incident Report form.
  - Controls to be taken to correct the MSD hazard (if applicable)
  - If further assistance is needed a certified Ergonomist will be contacted.

### **MSD Hazard Control**

- The results of the assessment may indicate that additional MSD controls are necessary:

- Recommendations regarding MSD hazard controls will be developed by the Supervisor (Contact a third-party Ergonomist if necessary).
- The people/team developing the controls will:
  - Ensure involvement of appropriate workers.
  - Reviews identified hazards and discuss priority hazards.
  - Brainstorm control options/ideas – Developing Solutions Worksheet (Form 3)
  - Review/investigate control options/ideas.
  - Select preferred control options.
- Recommendations regarding MSD hazard controls will be made as per the following priorities:
  - Engineering changes, where feasible, will be the preferred method of control.
  - If engineering controls are not feasible, administrative controls, work practices or personal protective equipment may be used.
  - Temporary control measures may be used, until more permanent controls can be implemented.

### **Office MSD Hazard Assessment**

- The goal of office ergonomics is to design the office workstation so that it fits the employee, allowing for a comfortable working environment. An ergonomically correct office workstation will reduce the risk of fatigue, discomfort and MSDs.
- Office workers should complete the University’s office ergonomics training course upon hire to learn about hazards of office ergonomics, risk factors and MSDs.
- Workers should conduct a workstation self-assessment using the tools or resources below to ensure proper set up to reduce the risk of developing an MSD.
  - [Office Workstation Checklist \(wsps.ca\)](http://wsps.ca)
- Workers shall report any ergonomic or safety hazard that arises from the workstation self-assessment to their supervisor or manager for resolution.
- If the worker continues to experience pain or discomfort or needs a further office ergonomic assessment completed by a third-party ergonomist they should follow the HR Ergonomic Guideline.

### **COMMUNICATION**

This procedure will be communicated to all employees of Victoria University upon hiring and orientation.

### **TRAINING**

Records of training will be maintained through Dayforce.  
The need for re-training will be reviewed and communicated on an annual basis.

### **RELATED PROCEDURES**

- Hazard Reporting
- Injury Reporting
- Accident/Investigation




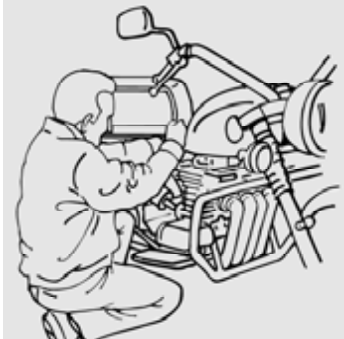
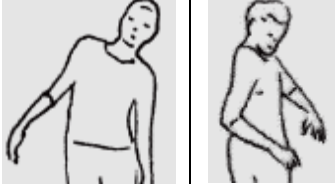


- Form 2 – MSD Hazard Identification Tool
- Form 3 – Developing Solutions Worksheet






<b>REFERENCE MATERIALS</b>
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- Occupational Health & Safety Act
- Industrial Regulation 851

<b>Approved Signature:</b>	<b>Date:</b>
<b>Distribution to:</b> All Managers and JHSC Members	<b>Document to be posted:</b> NO

**MSD HAZARD IDENTIFICATION FORM – FORM 2**

<b>Job Screened:</b>			
Movements or postures that are a regular and foreseeable part of the job, occurring more than one day per week, and more frequently than one week per year.		If done in this job <input checked="" type="checkbox"/> The box	Number of workers performing this job?
<b>Awkward Postures</b>			<b>Comments/Observations</b>
	1. Working with the hand(s) above the head, or the elbow(s) above the shoulders for more than 2 hours total per day.	<input type="checkbox"/>	
	2. Working with the neck rotated more than 45 degrees in either direction for more than 2 hours total per day.	<input type="checkbox"/>	
	3. Working with forward head/neck bent more than 20 degrees for more than 2 hours total per day.	<input type="checkbox"/>	
	4. Squatting more than 2 hours total per day.	<input type="checkbox"/>	
	5. Working while sitting or standing with the back bent forward, sideways, or twisted more than 30 degrees for more than 2 hours total per day.	<input type="checkbox"/>	
	6. Working while sitting or standing with the back bent more than 20 degrees, and with no support for the back, for more than 2 hours total per day.	<input type="checkbox"/>	
	7. Kneeling more than 2 hours total per day.	<input type="checkbox"/>	

High Hand Force		Comments/Observations
	8. Pinching an unsupported object(s) weighing 2 or more pounds per hand, or pinching with a force of 4 or more pounds per hand, more than 2 hours total per day (comparable to pinching half a ream of paper).	<input type="checkbox"/>
	9. Gripping an unsupported object(s) weighing 10 or more pounds per hand, or gripping with a force of 10 or more pounds per hand, more than 2 hours total per day (comparable to clamping light duty automotive jumper cables onto a battery).	<input type="checkbox"/>
Highly Repetitive Motion		Comments/Observations
	10. Repeating the same motion with the neck, shoulders, elbows, wrists, or hands (excluding keying activities) with little to no variation every few seconds, more than 2 hours total per day.	<input type="checkbox"/>
	11. Performing intensive keying more than 4 hours total per day.	<input type="checkbox"/>
Repeated Impact		Comments/Observations
	12. Using the hand (heel/base) of palm or knee as a hammer more than 10 times per hour, more than 2 hours total per day.	<input type="checkbox"/>
Heavy, Frequent or Awkward Lifting (A sample scale can be used to determine the weight of materials).		Comments/Observations

	<p>13. Lifting objects weighing more than 75 pounds once per day or more than 55 pounds more than 10 times per day.</p>	<input type="checkbox"/>	
	<p>14. Lifting objects weighing more than 10 pounds if done more than twice per minute, more than 2 hours total per day.</p>	<input type="checkbox"/>	
	<p>15. Lifting objects weighing more than 25 pounds above the shoulders, below the knees or at arm's length more than 25 times per day.</p>	<input type="checkbox"/>	
<p><b>Moderate to High Hand-Arm Vibration (Closely estimate or obtain the vibration value of the tool in use).</b></p>			<p><b>Comments/Observations</b></p>
	<p>16. Using impact wrenches, carpet strippers, chain saws, percussive tools (jack hammers, scalers, riveting or chipping hammers) or other tools that typically have high vibration levels, more than 30 minutes total per day.</p>	<input type="checkbox"/>	
	<p>17. Using grinders, sanders, jigsaws or other hand tools that typically have moderate vibration levels more than 2 hours total per day.</p>	<input type="checkbox"/>	





### DEVELOPING SOLUTIONS WORKSHEET – FORM 3

Name: \_\_\_\_\_ Date: \_\_\_\_\_

This worksheet is designed to be used to determine control options and ideas. The worksheet encourages workplaces to consider potential MSD controls from all aspects of the job: work processes, equipment, materials, environment, and human elements. All the individuals involved in the MSD prevention program, and especially the workers, should take part in identifying controls that they think will help solve the problem.

<p>1. <b>Process</b></p> <ul style="list-style-type: none"><li>1.1. Self-paced jobs, cycle time allows for micro-breaks.</li><li>1.2. Job enlargement and/or job rotation.</li><li>1.3. Improved work/material flow.</li><li>1.4. Improve communication between workers performing job.</li><li>1.5. Improve communication between workers on adjacent jobs.</li><li>1.6. Improve communication between workers and production, quality, planning, engineering, etc. department.</li><li>1.7. Timely response to reports of defects, equipment breakdown, product/tool/equipment damage.</li></ul> <p>2. <b>Equipment</b></p> <ul style="list-style-type: none"><li>2.1. Mechanize a process.</li><li>2.2. Provide mechanical lifts, hoists, conveyors, motorized carts.</li><li>2.3. Improve workstation design/layout.</li><li>2.4. Workstation adjustability (sit/stand, height adjustable).</li><li>2.5. Preventive maintenance.</li><li>2.6. Pre-shift checklists/inspections.</li><li>2.7. Move control, displays, tools for easier use, visibility access.</li><li>2.8. Provide space for workers to move, allow unconstrained postures.</li><li>2.9. Provide material handling equipment for moving materials.</li></ul>	<p>3. <b>Materials</b></p> <ul style="list-style-type: none"><li>3.1. Organize stock on shelves taking weight into consideration.</li><li>3.2. Reduce use of sub-standard/poor quality materials.</li><li>3.3. Purchase materials in bulk containers.</li><li>3.4. Redesign packaging to include handles.</li><li>3.5. Store materials in areas that are easy to access.</li></ul> <p>4. <b>Environment</b></p> <ul style="list-style-type: none"><li>4.1. Organize workstation to enhance interactions.</li><li>4.2. Redesign workstation layout to provide space for movement and required tasks.</li><li>4.3. Improve housekeeping.</li><li>4.4. Comfortable working temperature.</li><li>4.5. Provide anti-fatigue matting.</li></ul> <p>5. <b>Human</b></p> <ul style="list-style-type: none"><li>5.1. Training:<ul style="list-style-type: none"><li>5.1.1. Signs and symptoms of MSDs.</li><li>5.1.2. MSD hazard awareness.</li><li>5.1.3. How to report MSDs/MSD hazards.</li><li>5.1.4. Work techniques and processes.</li></ul></li><li>5.2. Team-based solutions/participatory problem solving.</li><li>5.3. Reinforce need for use of equipment/controls that help reduce MSD risk.</li><li>5.4. Support for early reporting of concerns.</li><li>5.5. Personal protective equipment (in-soles, knee pads, anti-vibration gloves).</li><li>5.6. Production pressures and demands.</li></ul>
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