

Musculoskeletal Injury (MSI) Prevention Program

Introduction

The implementation of the Occupational Health and Safety Regulation has given new responsibilities to all employers in British Columbia. One of the new provisions introduced by the Regulation is that of the Ergonomics Musculoskeletal Injury (MSI) requirements, Section 4.46 – 4.53.

The regulation prescribes specific high risk work activities which the University has to give due consideration to when undertaking risk assessments of the workplace and work activities. These requirements are designed to eliminate as far as is practicable, the development of MSIs in the workforce. Overall responsibility for the implementation of these provisions rests with administrative heads of unit as per UBC safety policy #7. Information, instruction, training and on-going support will be provided to these departments until knowledge and levels of experience are brought up to a satisfactory level (i.e., moving from an expert driven to a culture driven process).

Ergonomic injuries account for more than half of all injuries arising from the work activities at UBC. The implementation program will provide a framework for management/unions and safety committees to address the ergonomic risks within their areas of responsibility and to take appropriate action to reduce those risks when identified.

The following document gives an outline of the University's strategy of not only achieving statutory compliance but working towards best practices in the reduction of MSIs.

How UBC’s Ergonomics Program Meets WCB Regulations:

WCB Ergonomic Regulation	UBC Ergonomics Program
<p>4.46 Definition Musculoskeletal injury or MSI means an injury or disorder of the muscles, tendons, ligaments, joints, nerves, blood vessels or related soft tissue including a sprain, strain and inflammation, that may be caused or aggravated by work.</p>	<p>It is important that first aid attendants are trained in the signs and symptoms of MSIs and that detailed description of the injury are included in the injury stats to ensure accurate statistics regarding MSIs.</p>
<p>4.47 Risk Identification The employer must identify factors in the workplace that may expose workers to a risk of musculoskeletal injury (MSI).</p>	<p>This regulation places a general duty on employers to undertake an assessment of the workplace (and those activities that occur within it) in order to eliminate/minimize the risk of MSIs. This assessment is to be carried out by competent personnel who are familiar with the work activities and who have received instruction and training in the identification and significance of risk of those activities. The departmental Office Ergo Representative(s) can complete office workstation assessments. The University Ergonomics Program Officer can perform assessments outside of office tasks.</p>
<p>4.48 Risk Assessment When factors that may expose workers to a risk of MSI have been identified the employer must ensure that the risk to workers is assessed.</p>	<p>The University has a statutory duty, via the administrative heads of departments, to conduct an adequate assessment of the tasks undertaken within their operational area, to ensure that such risks are minimized. The departmental Office Ergo Representative(s) can complete office workstation assessments. The University Ergonomics Program Officer can perform assessments outside of office tasks. The WCB also has ergonomic checklists that can be used to aid in risk assessments. This method of risk assessments may be considered to departments outside of the high risk areas.</p>

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<p>4.49 Risk Factors</p> <p>The following factors must be considered, where applicable, in the identification and assessment of the risk of MSI:</p> <ol style="list-style-type: none"> the physical demands of work activities including: force, repetition, duration, work postures, and local contact stresses aspects of the layout and condition of the workplace or workstation, including: working reaches, working heights, seating, and floor surfaces the characteristics of objects handled, including: size and shape, load condition and weight distribution, and container, tool and equipment handles the environmental conditions, including cold temperature the following characteristics of the organization of work: work recovery cycles, task variability and work rate 	<p>A risk factor checklist has been developed and used during the assessments performed by the UBC Ergonomics Program Officer to ensure that all risk factors are considered. This checklist is available on the Health, Safety and Environment website www.hse.ubc.ca</p> <p>Office Ergo Representatives use a comprehensive Computer Workstation Set-up Checklist to ensure that all risk factors associated with office work are considered during the assessment.</p>
<p>4.50 Risk Control</p> <ol style="list-style-type: none"> The employer must eliminate or, if that is not practicable, minimize the risk of MSI to workers. Personal protective equipment may only be used as a substitute for engineering or administrative controls if it is used in circumstances in which those controls are not practicable. The employer must, without delay, implement interim control measures when the introduction of permanent control measures will be delayed. 	<p>Recommendations as a result of an ergonomics assessment will be implemented to help protect workers against MSIs. A detailed action plan is developed for each job assessed in cooperation with management, supervisors, and workers. Implementation of recommendations is the responsibility of the individual departments. Follow-up on the action plan is scheduled in correlation with the timelines indicated within the action plan.</p>
<p>4.51 Education and Training</p> <ol style="list-style-type: none"> The employer must ensure that a worker who may be exposed to a risk of MSI is educated in risk identification related to the work, including the recognition of early signs and symptoms of MSIs and their potential health effects. 	<p>Along with every ergonomic assessment completed on campus are two training sessions. The first one provides ergonomics awareness and meets the requirements of item (1). The second session discusses risk controls including work practices which meets the requirements of item (2).</p>

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<p>2) The employer must ensure that a worker to be assigned to work which requires specific measures to control the risk of MSI is trained in the use of those measures, including, where applicable, work procedures, mechanical aids and personal protective equipment.</p>	<p>The Office Ergo Rep is required to take a 4-hour training session, which enables them to provide resources and training to their departments regarding office ergonomics.</p> <p>Other avenues of education and training are through Safety Committees, Orientation Training, Departmental Awareness Sessions, and Website Resources.</p>
<p>4.52 Evaluation</p> <p>1) The employer must monitor the effectiveness of the measures taken to comply with the Ergonomics (MSI) Requirements and ensure they are reviewed at least annually</p> <p>2) When the monitoring required by subsection (1) identifies deficiencies, they must be corrected without undue delay.</p>	<p>A formal evaluation process has been developed to ensure that the effectiveness of the control measures is monitored, this occurs 1-year after the initial assessment. This process includes reviewing injury stats, discomfort survey information if available, worker interviews, work practice checklist, and risk factor checklist. If risk factors are still present, recommendations are implemented to reduce risk further.</p>
<p>4.53 Consultation</p> <p>1) The employer must consult with the joint committee or the worker health and safety representative, as applicable, with respect to the following when they are required by the Ergonomics (MSI) Requirements:</p> <ul style="list-style-type: none"> a) risk identification, assessment and control; b) the content an provision of worker education and training; c) the evaluation of the compliance measures taken <p>2) The employer must, when performing a risk assessment, consult with</p> <ul style="list-style-type: none"> a) workers with signs and symptoms of MSI, and b) a representative sample of the workers who are required to carry out the work being assessed. 	<p>A proactive method of receiving feedback from workers who are experiencing signs and symptoms of MSIs, is to use a discomfort survey. This ensures that not only individuals that have reported injuries to first aid are consulted but individuals with the early onset of signs and symptoms are consulted as well.</p> <p>During an assessment of a particular work area or job position, workers are interviewed to receive feedback. Best practice includes feedback from all workers affected by the implementation of ergonomic improvements.</p>

Ergonomic Issues dealt with through Safety Committees:

Ensuring that ergonomic concerns are a focus of Safety Committees is one goal of the Ergonomics Program here at UBC. Presently the program is more expert driven than culture driven. Meaning that at the present time, implementation of ergonomic recommendations is facilitated by either the Ergonomics Program Officer or Departmental Office Ergonomic Representatives. As the momentum changes towards a culture driven program, Safety Committee Members will be trained in risk identification and basic risk assessment. Safety Committees should discuss and document ergonomic concerns and bring in the appropriate resources to aid in the prevention and reduction of MSIs.

UBC Office Ergonomics Program:

Why Does Your Department Need an Office Ergonomics Representative?

- Over 50% of all injuries on campus are related to ergonomics
- Discomfort can lead to musculoskeletal injury (MSI's) early intervention can prevent this
- Your department will have an easily accessible ergonomics resource that will aid in early intervention therefore reducing the number of musculoskeletal injuries
- The Office Ergo Rep will help workers set-up their computer workstations to minimize risk factors.
- Your Office Ergo Rep will be your department's liaison to the UBC Ergonomics Program Officer in the Health, Safety and Environment Department
- WCB requires that each department educate workers about risk factors, signs and symptoms of injury and prevention strategies. At UBC, in our Safety Policy #7, it is the "responsibility of...administrative heads of unit to provide a safe, healthy and secure working environment"

Workstation Review Process:

1. Distribute the "Computer Workstation Set-up Checklist" to your co-workers. Assist your co-workers to optimize their workstations. Make any changes that can be done immediately. Keep the completed checklists in your files.
2. Document discussions with those who refuse assistance. Keep this documentation in your files.
3. If you encounter a workstation that requires further action, send the completed checklist to the supervisor as well as to the Chair of the Health and Safety Committee for follow-up.
4. Send a summary of the ergonomics activity within your department to the UBC Ergonomics Program Officer every 3 months. Include in this summary:
 - The names of the individuals that have been educated about MSIs and Risk Factors in the work place
 - Individuals whose workstations have been assessed using the checklist
 - Number of workstations that require action
 - Number of actions that were implemented

If you are interested or have been assigned by your department to become an Office Ergo Rep you will need to take a 4 hour-training course, which will provide you with the skills to ergonomically assess office workstations. A list of all the current Office Ergonomics Representatives is available on the HSE website at www.hse.ubc.ca under the section of Office Ergonomics.

Please contact the UBC Ergonomics Program Officer at ergonomics @safety.ubc.ca to find out about up coming courses.

Reference Materials

For links to the following UBC resource documents, go to the following website address:
<http://www.hse.ubc.ca/v.2/inner.php?scid=18&pid=0>

- Computer Workstation Set-up Checklist
- Office Stretch Sheets
- Warm-up, Upper Body, and Lower Body Stretch Sheets
- Risk Factor Checklist
- Office Ergo Rep – Contact Poster

For links to the following WCB resource documents, go to the following website address:
www.worksafebc.com/publications/health_and_safety_information/by_topic/ergonomics/default.asp

- Back Talk: An Owner's Manual for Backs
- How to Make Your Computer Workstation Fit You
- Preventing Musculoskeletal Injury (MSI): A Guide for Employers and Joint Committees
- Understanding the Risks of Musculoskeletal Injury (MSI): An Educational Guide for Workers on Sprains, Strains, and Other MSIs
- Ergonomics Commentary 1 – Back Belts
- Ergonomics Commentary 2 – Wrist Braces
- Ergonomics Commentary 3 – PC Mouse