1 PURPOSE

- To promote awareness of the risks associated with poor ergonomic design and work practices in the workplace.
- To provide direction regarding the application of safe and efficient ergonomic design in the workplace and implementation with the goal to eliminate all work related musculoskeletal disorders.
- To ensure compliance with the Occupational Health and Safety Act, applicable standards and best practices.

2 SCOPE

- All work areas, work tasks and work stations utilized by McMaster University faculty, staff, students and volunteers.

3 RELATED DOCUMENTS

- Occupational Health and Safety Act, Sections 25 & 27
- Workplace Safety and Insurance Act, 1997
• McMaster University RMM #100 Workplace & Environmental Health and Safety Policy
• McMaster University RMM #101 Risk Management System
• McMaster University RMM #300 Safety Orientation and Training Program
• McMaster University RMM #324 Job Hazard Analysis Program
• McMaster University RMM #1002 Return to Work Program

4 DEFINITIONS

• Accommodation - change, adapt or adjust to enable an individual to perform essential duties of a job in a healthy and safe manner.
• Cognitive – related to “cognition”, which is a) the process people use for remembering, awareness, perception, reasoning, understanding, and using judgement; b) the ability to think and make sense out of what is seen, heard, felt, and experienced in order to take appropriate actions.
• Design – the process of changing existing or developing new work systems, encompassing individual tasks through to complex systems.
• Employer - a person who employs one or more workers or contracts for the services of one or more workers and includes a contractor or sub-contractor who performs work or supplies services and a contractor or sub-contractor who undertakes with the owner, constructor, contractor or sub-contractor, to perform work or supply services.
• Ergonomics - the applied science that seeks to fit the job to the worker through the evaluation and design of work environment in relation to human characteristics and interactions in the workplace.
• Ergonomic Factors - factors which affect the interaction of a worker with the work environment.
• Hazard – a source of potential harm to a worker.
• Musculoskeletal Disorder - disorders of muscles, tendons, ligaments, nerves, joints (soft tissue). Examples include sprains, strains, inflammations, irritations and dislocations of parts of the body such as the extremities, back, neck and eyes.
• Practical - which is reasonably capable of being done.
• Retrofit - adapting work practices and procedures and or modifying the workplace and equipment to reduce the potential for injury that may result from poor workplace and job design.
• Supervisor - person who has charge of a workplace or authority over a worker.
• Worker - means any of the following but does not include an inmate of a correctional institution or like institution or facility who participates inside the institution or facility in a work project or rehabilitation program:
• A person who performs work or supplies services for monetary compensation

• A secondary school student who performs work or supplies services for no monetary compensation under a work experience program authorized by the school board that operates the school in which the student is enrolled

• A person who performs work or supplies services for no monetary compensation under a program approved by a college of applied arts and technology, university or other post-secondary institution

• A person who received training from an employer, by who, under the Employment Standards Act 2000, is not an employee for the purposes of that Act because the conditions set out in subsection 1 (2) of that Act have been met.

• Such other persons as may be prescribed who perform work or supply services to an employer for no monetary compensation; (“travailleur”).

• Acronyms
  
  CJHSC - Central Joint Health and Safety Committee  
  CSA - Canadian Standards Association  
  EHS - Employee Health Services  
  EOHSS - Environmental and Occupational Health Support Services  
  FHS Safety Office - Faculty of Health Sciences Safety Office  
  JHSC - Joint Health and Safety Committee  
  MOL - Ministry of Labour  
  MSD - Musculoskeletal Disorder  
  OHSA - Occupational Health and Safety Act  
  RMSG - Risk Management Support Group  
  RMM - Risk Management Manual  
  WSIB - Workplace Safety and Insurance Board

5 RESPONSIBILITIES

• Role of Senior Managers (Deans / Directors / Chairs / Managers):
  
  Senior Managers:
  
  • provide the required resources and direction to support the Ergonomics Safety Program;
  
  • ensure ergonomic issues are identified and solutions implemented in the design or redesign of any work location.
• **Role of Supervisors:**
  Supervisors shall:
  
  - be knowledgeable of physical, cognitive, and organizational factors;
  - ensure ergonomics are considered in the design of present and new tasks and work locations on an individual basis to minimize hazards and risks to workers;
  - ensure retrofits meet current ergonomic best practices during any renovation or workplace redesign;
  - direct employees to the Ergonomics Self Assessment Tool to allow self-adjustment of workstations;
  - arrange for ergonomic assessments through the appropriate department (EOHSS or FHS Safety Office) when an injury is reported;
  - if required after completing Ergonomic Self Assessment Tool, arrange for ergonomic assessments through the appropriate department (EOHSS or FHS Safety Office), when requested, either through a JHSC workplace inspection or by request of a worker;
  - arrange for ergonomic consultation with EOHSS or FHS Safety Office as required when establishing a new workplace and/or job design;
  - ensure workers participate in ergonomic training;
  - ensure Incident/Injury Reports are filed with the EOHSS or FHS Safety Office for all incidents including MSDs.

• **Role of Faculty, Staff, Students and Volunteers:**
  Individuals shall:
  
  - participate in ergonomic training as identified by the Job Hazard Analysis;
  - apply ergonomic skills and knowledge of physical, cognitive, and organizational factors to prevent injuries or discomfort;
  
  - complete the Ergonomic Self Assessment Tool if applicable; report ergonomic hazards and concerns, early signs and symptoms, to their immediate supervisor.

  **Individuals may:**
  
  - report ergonomic concerns to the JHSC; request a JHSC worker be present at the ergonomic assessment if there are any concerns.

• **Role of Facility Services**
  Facility Services shall:
  
  - be knowledgeable of physical, cognitive, and organizational factors;
• understand ergonomics specifications, related to the particular project.
• consider ergonomic factors when designing, and procuring equipment, facilities, workspaces, tools, and products to minimize hazards and risks to workers;
• consider ergonomics factors in installation, layout, and implementation or new designs, equipment, or tools to minimize hazards and risks to workers;

• **Role of Employee Health Services (EHS):**
  EHS shall:
  • consult with EOHSS or FHS Safety Office on ergonomic best practices;
  • file Form 7 reports of injury with the WSIB for all work-related MSD injuries involving healthcare and/or lost time for the injured worker.

• **Role of EOHSS and FHS Safety Office:**
  EOHSS and FHS shall:
  • provide ergonomic training and awareness education;
  • promote the Ergonomic Self Assessment Tool;
  • advise supervisors and workers on ergonomic modification in the workplace, conduct detailed ergonomic assessment, if required, after employee completion of Ergonomic Self Assessment Tool;
  • assist in investigations related to MSDs on the request of the EHS; conduct an ergonomic assessment of the work process and/or workstation associated with the MSDs and advise on physical changes and/or additional ergonomic education as requested;
  • coordinate the provision of ergonomic assessment utilizing external expertise if needed, i.e. Ergonomist.

• **Role of Central Joint Health and Safety Committee (CJHSC):**
  The CJHSC shall:
  • review the Ergonomics Safety Program on a regular basis.

• **Role of Joint Health and Safety Committees (JHSC):**
  JHSC's shall:
  • receive all injury/incident reports including ergonomic related injuries in the workplace;
  • upon request be provided timely access to all workplace construction and re-design plans;
• upon request participate in the ergonomic assessment of the work process and/or workstations.
• report all ergonomic concerns noted during monthly workplace safety inspections.

6 EDUCATION AND AWARENESS

• Ergonomic education for staff and supervisors shall be completed. Safety information on ergonomic best practices can be located at www.workingatmcmaster.ca/eohss.

7 RECORDS

• Supervisors shall retain ergonomic assessment records for a minimum of three years.
• The EOHSS and FHS Safety Offices shall retain ergonomic assessment records for a minimum of 5 years.
• The EHS office shall retain permanent records of all WSIB claims involving MSDs or any other work related injury.
### Office Workstation Ergonomics Self Assessment Checklist

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Diagram Reference</th>
<th>Yes</th>
<th>No</th>
<th>If no, try the following</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are your feet flat on the floor?</td>
<td>1</td>
<td></td>
<td></td>
<td>• Raise/lower chair height&lt;br&gt;• Use/remove foot rest&lt;br&gt;• Reduce heel height of shoes</td>
</tr>
<tr>
<td>Are your knees and hips at 90 degrees when sitting?</td>
<td>2</td>
<td></td>
<td></td>
<td>• Raise/lower chair height&lt;br&gt;• Use/remove footrest</td>
</tr>
<tr>
<td>Is your back straight and well supported by your chair?</td>
<td>3</td>
<td></td>
<td></td>
<td>• Sit back in your chair&lt;br&gt;• Adjust lumbar support to fit the lower back&lt;br&gt;• Move monitor closer to the edge of the desk</td>
</tr>
<tr>
<td>Are your shoulders relaxed (not slouched or raised)?</td>
<td>4</td>
<td></td>
<td></td>
<td>• Raise/lower chair height&lt;br&gt;• Raise/lower armrests&lt;br&gt;• Raise/lower keyboard height</td>
</tr>
<tr>
<td>Are your elbows at 90 degrees to the body while typing?</td>
<td>5,8/9</td>
<td></td>
<td></td>
<td>• Raise/lower armrests&lt;br&gt;• Raise/lower keyboard height</td>
</tr>
<tr>
<td>Are your wrists straight (not bent up or down) when typing?</td>
<td>6</td>
<td></td>
<td></td>
<td>• Adjust the tilt of your keyboard tray&lt;br&gt;• Close tilt risers on the back of your keyboard</td>
</tr>
<tr>
<td>Is your head upright and over your shoulders?</td>
<td>7,11,12</td>
<td></td>
<td></td>
<td>• Raise/lower monitor so the top of the screen is at eye level&lt;br&gt;• Position monitor directly in front of you</td>
</tr>
<tr>
<td>Is your mouse on the same level as your keyboard?</td>
<td>10</td>
<td></td>
<td></td>
<td>• Place mouse on same level as keyboard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>--</td>
<td>-----------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Is your document holder at the same height and distance as</strong></td>
<td>13</td>
<td>• Use keyboard tray that accommodates both keyboard and mouse</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>your monitor?</strong></td>
<td></td>
<td>• Obtain document holder if required</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Adjust document holder to same height and distance as the monitor</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Is your computer screen free of lights or object reflections</strong></td>
<td>N/A</td>
<td>• Use blinds or curtains to reduce glare from windows</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>when it is turned off?</strong></td>
<td></td>
<td>• Use screen glare filter</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use tasks lighting that will not reflect onto the screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Do you take regular breaks or stretch when sitting for a long</strong></td>
<td>N/A</td>
<td>• Take regular micro breaks (30 seconds) throughout the day</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>duration?</strong></td>
<td></td>
<td>• Eat lunch away from your desk</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Reference Diagram**

![Diagram of a workstation with numbered parts]
APPENDIX 2

ERGONOMIC ASSESSMENT REQUEST FORM

Use this form to request an assessment once the Ergonomics Self Assessment Tool has been completed and the need for an assessment still exists.

Please submit to Environmental and Occupational Health Support Services (EOHSS), Gilmour Hall, Room 304 or Fax to 905 540-9085.

For Health Science Safety Office return to HSC, Room 1J11 or fax to 905 528-8539.

If there are any concerns regarding the ergonomic assessment you may request a JHSC worker to be present.

What is ERGONOMICS:
The applied science that seeks to fit the job to the worker through the evaluation and design of the work environment in relation to human characteristics and interactions in the workplace.

You control the risk of injury from ergonomic factors in the same way that you deal with other safety risks. You need a process whereby you (a) identify the risk, (b) assess the level of risk, (c) eliminate or minimize the risks, and (d) monitor to make sure the risks are under control.

In an office, ergonomics applies to:
- design and organization of jobs and tasks office workers perform
- the layout of the office, including the floor plan and storage systems
- choice of office equipment such as keyboards, input devices and monitors
- set up of the office workstation such as the type of desk, chair and accessories, how they are arranged
- the office environment, including temperature, air quality and noise

Ergonomics fits the job to the worker

<table>
<thead>
<tr>
<th>Name:</th>
<th>Email:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Phone:</td>
<td>Department:</td>
</tr>
<tr>
<td>Date:</td>
<td>Supervisor:</td>
</tr>
</tbody>
</table>

Please describe your concern:

What are your ideas to improve this job:

Please take the opportunity to review these concerns with your supervisor and ensure your supervisor is aware of the ergonomic assessment to be scheduled with you.