

Musculoskeletal Disorders (MSD)

What are musculoskeletal disorders?

They are injuries that affect muscles, tendons, ligaments and nerves. These injuries can develop when the same muscles are used over and over again or for a long time without taking time to rest. The chance of getting this type of injury increases if the force exerted is high and/or the job requires an awkward posture. Some examples of musculoskeletal disorders include back pain, carpal tunnel syndrome, tendonitis and tenosynovitis.

Preventing musculoskeletal disorders requires recognition, assessment and control of the hazards that cause them. Always do this with input from both workers and management. Keep in mind that the most knowledgeable person about problems with a job is usually the person doing it.

What the law says about MSD

Both Canadian and Ontario health and safety legislation require employers to protect their workers from hazards in the workplace. This includes hazards that could lead to musculoskeletal disorders. Employers also have an obligation to train their workers to perform their job safely. Workers have the right to know about those hazards and the right to participate in workplace health and safety efforts to prevent and eliminate those hazards.

Recognize hazards first

Identify where in the workplace you have MSD hazards (force, posture, repetition, duration, etc.) and document the tasks or jobs with these elements. Review your workplace and interview workers and management about the work processes. Pay particular attention to workstation design, equipment and tools, manual material handling (see fact sheet # 3180), environmental factors, work organization and documentation of previously reported hazards.

Workstation design

- Work surface heights that are not at appropriate height for worker
- Excessive reaching (chest level, above shoulder or below waist), possibly while applying force
- Inappropriate seating

Equipment and Tools

- Use of awkward or static body postures
- Hard to reach controls that require force to operate
- Constant or excessive hand-arm or whole body vibration
- Awkward grip
- Wrist in bent position while using tools
- Weight of tool or equipment
- Trigger requires force to operate
- Use requires force

Environmental Factors

- Cold temperatures
- Uncomfortable or harsh lighting

Work Organization

- Large volume (especially in cases of piecework)
- Inadequate or infrequent breaks
- Lack of control by individual over speed of work
- Lack of task variation
- Inadequate training on safe work procedures and proper use of tools/equipment

Documentation of previously reported hazards

- Complaints made by workers or health office visits may signal a problem area
- History of prior WSIB claims
- Workplace inspections

Assess the degree of hazard

Next, determine the degree of hazard by assessing the following against your company's standards:

- Repetition -- frequency, speed and duration of the repetitive task
- Posture – neutral, awkward, duration of static postures
- Force – what is the force required to perform the task and the duration the force exerted before a break

Control hazards, preferably at their source

Consider changes to

- Mechanize a repetitive task or process
- Design workstations and work processes using ergonomic principles
- Use well maintained tools and equipment that decrease force or awkward position
- Provide lifting devices to eliminate heavy lifting
- Ensure that all employees receive comprehensive training on how to do their job safely

If the hazard still exists

- Use job rotation if it allows workers to use a different set of muscles
- Build a variety of tasks into every job
- Design work processes so that workers work in a team and they alternate tasks
- Allow new or returning workers to gradually increase volume of work

<p>Use ergonomic principles, to avoid</p> <ul style="list-style-type: none">• awkward body positions• overextended and awkward reaches• repetitive or heavy bending, twisting, reaching, lifting, lowering, pushing and pulling• sustained or static exertions and/or

For more information contact your Health and Safety Association or call the WSIB Prevention Hotline at (416) 344-1016 (1-800-663-6639).

Workplace Safety and Insurance Board

Ontario's Workplace Safety and Insurance Board (WSIB) plays a key role in the province's occupational health and safety system. Funded by employers, the WSIB is one of the top 10 disability insurers in North America. In addition to a strong prevention mandate, the WSIB provides insurance for injuries and illnesses incurred in workplaces covered under the *Workplace Safety and Insurance Act* and supports early and safe return to work for injured workers.

<p>This information is available in several languages and formats by calling 416-344-4999, toll-free 1-800-465-5606 or Telephone Service for the Deaf TTY :1-800-387-0050.</p> <p>Pour obtenir un exemplaire en français, composez let 1-800-465-5606.</p>
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