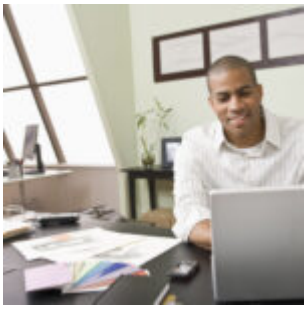
ERGONOMICS: Take 4 Steps to Prevent MSIs in Office Spaces



Certain workplaces, such as construction sites and manufacturing operations, are full of serious safety hazards. In contrast, office buildings and the office spaces within other types of workplaces may seem hazard-free. But office spaces actually *do* have safety hazards, some of which are related to ergonomics and can cause repetitive stress or musculoskeletal injuries (MSIs). And although MSIs aren't generally considered serious injuries under the OHS laws, they do account for a high percentage of workplace injuries overall'and workers' comp claims. For example, a worker in Alberta filed a workers' comp claim, saying that he suffered a strained neck and muscle spasms due to performing computer work for a period of years at a station that wasn't ergonomically correct. And the Appeals Commission agreed [*Decision No.: 2012-133*, [2012] CanLII 7823 (AB WCAC), Feb. 8, 2012]. So here's a look at four steps you should take to address ergonomics-related hazards and prevent MSIs in your office spaces.

Defining Our Terms

For the purpose of this article, musculoskeletal injury (MSI) is defined as an injury or disorder of the muscles, tendons, ligaments, joints, nerves, blood vessels or related soft tissue, such as a sprain, strain and inflammation. Carpel

tunnel syndrome and 'tennis elbow' are good examples of MSIs. (Check your jurisdiction's OHS regulations for its definition of this or related terms, such as musculoskeletal disorder.)

OFFICE ERGONOMICS CHECKLIST: Download an **Office Ergonomics Checklist** you can have office workers complete to identify any ergonomics-related hazards at their workstations. You can also use this Office Ergonomics Risk Factor Checklist to identify ergonomics-related hazards in the average office area.

WHAT THE LAW SAYS

The Canadian jurisdictions take two general approaches to addressing ergonomics-related hazards and/or protecting workers from MSIs:

Specific requirements. The OHS regulations in six jurisdictions'Fed, AB, BC, MB, NL and SK'specifically require employers to identify and address ergonomics-related hazards and prevent MSIs. (See **this chart** for these requirements in detail.)

General duty clause. The remaining jurisdictions don't directly require employers to identify and address ergonomics-related hazards and prevent MSIs. (A few do have some ergonomics-related requirements. For example, the OHS regulations in Qu□bec include requirements on the proper height of workbenches, positioning of chairs and location of tools to reduce strain and fatigue.) But remember that the so-called 'General Duty' clause in each jurisdiction's OHS statute requires employers to take every reasonable precaution to protect workers from foreseeable safety hazards'which includes hazards that could cause MSIs. In fact, some jurisdictions have said in guidelines or other publications that this general duty includes an obligation to protect workers from MSIs. Here are some of those guidelines:

FED: Process for Implementing Ergonomics Regulatory Requirements

AB: How to Use Wrist Rests; New Thinking about Carpal Tunnel Syndrome; Proper Height of Work Surfaces

BC: How to Make Your Computer Workstation Fit You

MB: Guidelines for Preventing Musculoskeletal Injuries

NB: Office Ergonomics: Guidelines for Preventing Musculoskeletal Injuries; Ergonomics and Musculoskeletal Injuries (MSI): Preventing Injuries by Design

NL: Guidelines for the Prevention of Soft Tissue Injuries

NS: 6 Steps to an Ergonomics Mindset; Adjusting Your Computer Workstation; Working with Laptop Computers

ON: Ministry of Labour's Musculoskeletal Disorders/Ergonomics Web Page

SK: Musculoskeletal Injuries Prevention Guide

***Bottom line*:** Whether your jurisdiction imposes specific ergonomics-related requirements or simply relies on the general duty clause, you should take steps to identify ergonomics-related hazards that could causes MSIs and implement measures to eliminate or minimize those hazards.

TAKE 4 STEPS

You can handle ergonomics-related hazards as you would any other workplace safety hazard and address them through your OHS program. As an alternative, however, consider establishing a dedicated ergonomics program that's focused on these unique hazards. (For more information on such programs, see 'Managing Your OHS Program: 5 Keys to Effective Ergonomics Programs,' and 'Managing Your OHS Program: 7 Strategies for Making Your Ergonomics Program a Success.'

Although the requirements for protecting workers from MSIs vary to some degree by jurisdiction, they generally require

employers to take the following steps:

[learn_more caption= “Step #1: Identify and Assess Risk of MSIs”]

First, evaluate your office spaces for MSI risks and ergonomics-related hazards and then assess how serious of a danger they pose to workers. It’s a good idea to involve the JHSC in this process and, in fact, you may be required to include the committee or the health and safety representative by the OHS regulations.

You can conduct this assessment by inspecting office spaces, considering various ergonomics risk factors. The ones that are most relevant in an office environment are:

- Aspects of the layout and condition of the workplace or workstations, including working reaches, working heights, seating and floor surfaces;
- Environmental conditions, including cold temperatures; and
- Organization of the work, including work-recovery cycles’that is, how frequently workers get breaks’task variability and work rate.

You should also speak to the workers about any issues they’ve experienced or problems they’ve had working in office spaces, including any MSIs they’ve suffered. And you should look at workers’ comp and first aid data to see if workers have suffered MSIs and what kind of MSIs so you can detect any patterns, such as lower back issues that could be connected to uncomfortable desk chairs.

***Insider* Says:** For more information on assessing the risk of MSIs, see ‘Hazards: How to Identify & Assess Ergonomics-Related Hazards.’

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[/learn_more]

[learn_more caption="Step #2: Implement Controls to Eliminate or Minimize Risks"]

After you've identified ergonomics-related hazards in your office spaces, implement appropriate controls to eliminate or at least minimize the risk of MSIs. For example, adjust desks or other workstations to ensure workers can maintain an ergonomically neutral posture, which is one in which:

- Hands, wrists and forearms are straight, in-line and roughly parallel to the floor;
- Headis level (or bent slightly forward), facing forward, balanced and in line with the torso;
- Shoulders are relaxed;
- Upper arms hang normally at the side of the worker's body;
- Elbows stay close to the body and are bent between 90ø and 120ø;
- Feet are fully supported by the floor or a footrest if the desk height isn't adjustable and are slightly forward;
- Back is fully supported with appropriate lumbar support when the worker's sitting vertically or leaning back slightly;
- Thighs and hips are supported by a well-padded seat that's parallel to the floor; and
- Knees are about the same height as the hips.

The positioning of the computer screen is also important for preventing MSIs:

- The worker shouldn't be too close to or far from the screen'20 to 40 inches is optimal;

- The monitor shouldn’t be tilted too far left or right, that is, no more than 35ø degrees to either side; and
- The monitor, keyboard and or mouse also shouldn’t be too high or low to use in a neutral posture.

Don’t forget that these days many workers use laptop computers rather than desktop models. So ensure that any tables, sofas or other areas where workers work on laptops are also ergonomically correct.
[/learn_more]

[learn_more caption=”Step #3: Educate and Train Workers”]

Workers are often the first to become aware of an ergonomics-related hazard when they, say, develop back pain after sitting at their desk all day. So it’s critical that you educate workers on ergonomics-related hazards and MSI risk factors and train them on how to avoid MSIs. This education and training should cover, at a minimum:

- What MSIs are’including relevant examples’identification of factors that could lead to MSIs and the early signs and symptoms of them;
- Preventive measures including, where applicable, the use of altered work procedures, mechanical aids and PPE; and
- What to do if workers believe they’re experiencing any signs and symptoms of an MSI, such as telling a supervisor and seeing their doctor.

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[learn_more caption=”Step #4: Monitor the Effectiveness of the Control Measures”]

As with any safety measures, it’s a best practice to regularly monitor and assess the effectiveness of the controls you implement to eliminate or minimize ergonomics-related hazards. In addition, the OHS laws may require you to conduct such assessments. For example, the federal OHS regulations require

employers to evaluate the effectiveness of the hazard prevention program, including its ergonomics-related components, based on designated documents and information, including records and statistics relating to ergonomics-related first aid and injuries.

Review the effectiveness of your ergonomics-related controls at least once a year. If you identify any deficiencies in these safety measures, such as workers still suffering MSIs despite a change in the layout of a workstation, make sure that you reassess the workstation and take additional measures to address the hazards.
[/learn_more]

BOTTOM LINE

Although offices and office spaces are safer than other worksites, they're not hazard-free. As a safety coordinator, you should ensure that ergonomics-related hazards are taken seriously, and measures are implemented to make office spaces ergonomically sound and protect your workers from developing MSIs.

Ergonomics Compliance Centre

We have a compliance centre dedicated to ergonomics, which contains articles, videos, tools and other resources you can use to prevent MSIs in your workplace, including:

- A case study on a textile plant that saved almost $300,000 from its ergonomics program
- Ergonomic Risk Factor Checklist
- Lifting Hazard Assessment Checklist
- Checklist for Evaluating Ergonomics Programs
- Form for Investigating Neck, Shoulder and Upper Back Injuries
- Form for Investigating Injuries to the Hips, Knees and

Feet

- Form for Investigating Elbow, Forearm and Hand Injuries.