

No. 264

Ergonomics: Adjusting the Office Workstation

Potential hazard

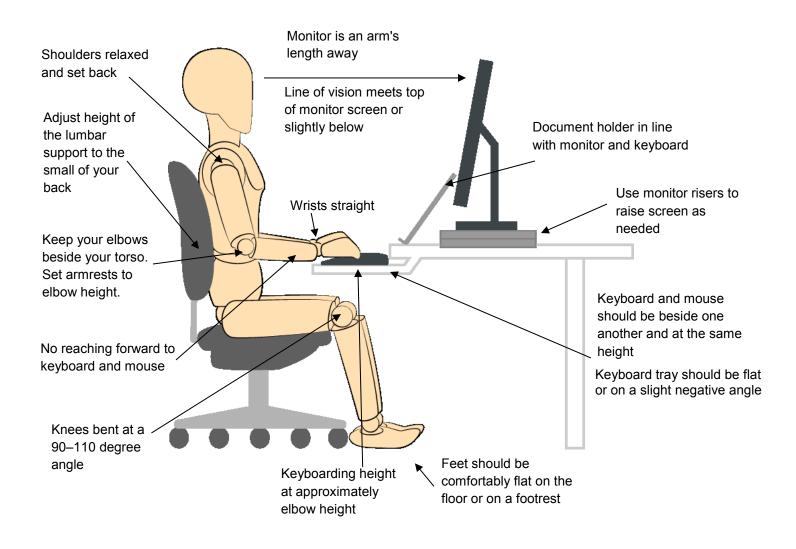
Office workers often spend long periods of time at their workstations. If they do not have their workstations set up correctly, they may be using their computer in a manner that could lead to injuries over time.

How to control the hazard

In order to minimize the risk of injury, workers should be given adjustable chairs and workstations, and be trained on how to properly adjust them. Workers should try to reduce prolonged sitting.

Proper adjustment techniques for chairs and workstations (seated and standing) are provided in this bulletin, along with illustrations.

Seated workstations (see page 2 for a step-by-step list of adjustment techniques):



(see over)



Adjusting your chair:

- 1. Adjust the height of your chair:
 - Ensure your feet are comfortably flat on the floor or on a footrest.
 - Ensure your knees are bent at a 90–110 degree angle.
- 2. Adjust the tilt of your chair:
 - Ensure the seat pan is flat.
 - Adjust the seat pan so there are two—three finger widths between the front of the seat and the back of your legs.
- 3. Adjust the height of the lumbar support to the small of your back.
- 4. Adjust the back angle to 90–110 degrees.
- 5. Position the armrests directly under your shoulders with your elbows beside your torso.
- 6. Position the armrests to a height where your arms are supported. Your elbows should be bent at approximately 90 degrees, and your forearms should be parallel with the floor.

Adjusting your seated workstation:

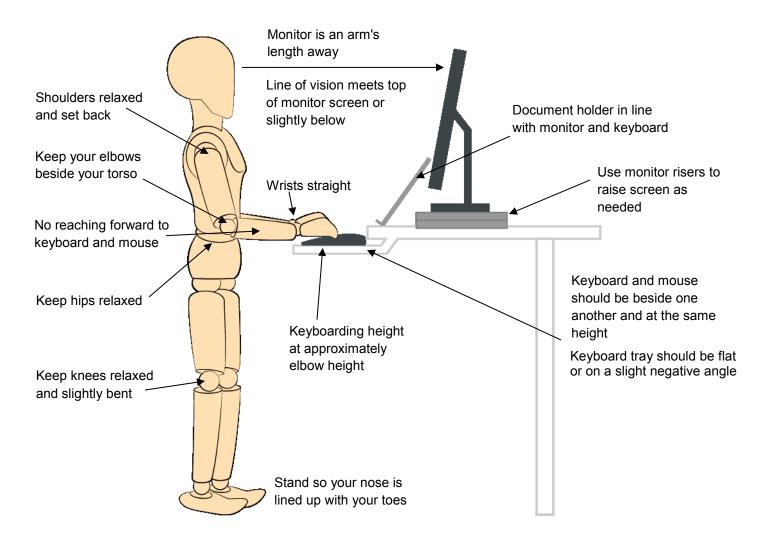
While many people recognize that having a properly set up chair is important for preventing injuries, they often overlook the importance of their workstation set-up. To adjust your workstation:

- 1. If a height-adjustable keyboard tray is available, position the keyboard tray at elbow height.
- 2. If the keyboard height is fixed, raise or lower your chair so that your elbows are at keyboard height. Provide a footrest if the chair height keeps your feet off the ground.
- 3. Adjust the angle of the keyboard and, if available, the keyboard tray so your wrists are flat or tilted slightly downward. Place the feet on the bottom of the keyboard into the closed position.
- 4. Place the monitor directly in front of you at about arm's length. Large monitors can be placed further away.
- 5. Adjust the height of the monitor:
 - Workers with bifocal or progressive lenses should place the monitor as low as possible,
 and increase the font size to use the top portion of the glasses.
 - Workers without these corrective lenses should position the top of the screen at eye level.
- 6. Position the mouse directly beside the keyboard and at the same height.
- 7. Sit close to the keyboard and mouse to reduce forward reach. Your elbows should be at your sides.
- 8. Place the phone or other regularly used items in locations that minimize reaching and twisting.

(see over)



Standing workstations:



Adjusting your standing workstation:

Standing or sit-stand workstations can help minimize the risk of injuries caused by prolonged sitting. These workstations also need to be adjusted to fit the worker and prevent injury:

- 1. Adjust the height and distance of your monitor following the instructions for seated positions on page 2.
- 2. Place the keyboard at elbow height. Your elbows should be bent at approximately 90 degrees.
- 3. Place the mouse directly beside the keyboard.
- 4. Stand close to the keyboard and mouse to reduce forward reach.
- 5. Stand so that your nose is lined up with your toes.
- 6. Place your phone and other regularly used items in locations that minimize reaching.
- 7. Place one foot on a box or footrest when you want to shift your weight. This position will keep your hips in a neutral position.
- 8. Remember to move frequently, and alternate between standing and sitting.

(see over)







Additional considerations:

Consider some of the following types of equipment and work practices to further reduce the risk of injuries:

- Split or ergonomic keyboards (see right) help you maintain a less stressful posture.
- Your keyboard and mouse should be beside each other.
 Consider using a keyboard without a numeric keypad or a mouse bridge that covers the keypad.
- Document holders that are properly placed in front of or beside your monitor can reduce the need to twist your neck while reading paper documents at your computer.
- Try using the mouse with your other hand to vary your tasks.
- Try alternative mouse styles that help keep your wrist in a neutral position. Joystick style and vertical style (see right) are two examples.
- Palm rests can be used to prevent your palms from resting on the hard desk surface while typing. Avoid using palm rests with the mouse if this leads to repetitive side-to-side movements at the wrist.
- Avoid cradling the phone between your ear and shoulder.
- If you use the phone often while using your computer or writing, use a hands-free system (e.g., a speakerphone or headset — see right).
- Stretch and change positions regularly:
 - Use regular cues to stand up (e.g., a ringing phone).
 - Place the printer at a distance from your desk to encourage standing and walking.
 - Drink a healthy amount of water to encourage regular mini-breaks.
 - Walk to a co-worker rather than emailing or calling.

Reference to legal requirements under workplace safety and health legislation:

Musculoskeletal Injuries: Manitoba Regulation 217/2006 Part 8

Additional workplace safety and health information available at safemanitoba.com

- SAFE Work Bulletin 233: Ergonomics: Hazards of the Seated Posture
- SAFE Work Bulletin 234: Office Ergonomics: Neck and Shoulder Hazards
- SAFE Work Bulletin 235: Office Ergonomics: Arm, Hand and Wrist Hazards

Canadian Centre for Occupational Health and Safety:

www.ccohs.ca/oshanswers/ergonomics/office/

Revised: June 2018

Last Reviewed/Revised: October 2016

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Publications and resources available at: safemanitoba.com