



## Ergonomics and Work at Home Guidelines

This document is intended to support employees in ergonomic configuration of their home-based office workstation for computer and telework. The document includes the following sections and is intended to supplement the Home Office Self-Assessment Checklist.

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### Employer and Employee Responsibilities

<https://www.worksafebc.com/en/about-us/news-events/announcements/2020/March/health-safety-responsibilities-when-working-from-home>

Employers are responsible for establishing clear health and safety policy and procedures to support working from home. This includes clarifying supervisory roles, check-in protocol for employees working in isolation, and incident reporting procedures.

Employees are responsible for working safely in the home environment. This includes assessing the hazards in their home environment and reporting any concerns to their manager. Ergonomics and configuration of the home workstation to minimize risk of musculoskeletal injury (MSI) is a component of working safely in the home environment.



## Ergonomic Process for Work at Home

**Step 1:** Refer to the Ergonomics and Work at Home document to learn ergonomic principles and identify ergonomic hazards.

**Step 2:** Complete the Self-Assessment Checklist for the Home-Office Computer Workstation to determine solutions to improve your home workstation setup.

**Step 3:** Report to your supervisor/manager regarding your ergonomic concerns, if not resolved by steps 1 and 2. Ensure ergonomic hazards are identified, and recommendations are implemented.

**Step 4:** Your ergonomic concerns still exist after you've tried all the above? Reach out to the OHS Division at [ssemohs@bcit.ca](mailto:ssemohs@bcit.ca) to arrange an ergonomic assessment.

## Musculoskeletal Injury (MSI) Early Signs and Symptoms

Recognizing and responding to early signs or symptoms of MSI is important. All body parts are at risk; however, the most frequent issues for computer-based work involve the upper extremities (hands, wrists, forearm, elbow, shoulder), neck and back. Early signs and symptoms may include: aching, pain, numbness, tingling, pins and needles sensation, fatigue, or muscle weakness. If these are severe or if they persist or worsen with time, please report to your supervisor, use the [Staff/Student injury report form](#) found on the BCIT website and see your physician.

## Computer/Telework Workstation Physical Configuration Tips

Ergonomic configuration of a home office for computer-based work or telework has the same physical targets as work in an office. Work from home is more likely to involve use of a laptop computer and less likely to have a fully adjustable ergonomic workstation. Tips below are intended to support configuration of a home workstation to minimize risk of MSI associated with computer-based work or telework, and with minimal additional costs for furniture or equipment.

If additional equipment is required for a home office, discuss options with your Manager to determine the best course of action to meet that requirement. The provision of equipment for a home office may involve purchasing new equipment or access to existing equipment from campus that may be brought home. Refer to your Manager for available options.



## Physical Workstation Configuration Targets:



### Monitor

- top menu bar at eye height; arm’s length away; centred to nose

### Lighting

- no more or no less than twice the monitor brightness; 90° to window

### Keyboard/mouse or worksurface

- at elbow height with relaxed shoulders

### Posture:

- 90° to 100° angle at knees, hips, and elbows. Everything else straight. Feet on the floor or well-supported in front of the chair

## Tips for Laptops:

Laptops have a keyboard and monitor that are connected – great for portability but poor for meeting physical configuration targets. Prolonged laptop use increases risk of neck, back and shoulder MSI.

1. Add a peripheral keyboard and mouse – set at elbow height.
2. Add a peripheral monitor or use the laptop as the monitor – set top menu bar at eye height.

## Tips for Mobile or Landline Phone Use:

Mobile or landline phone use for extended periods of time increases risk of neck, shoulder, elbow, wrist and hand MSI. Prolonged grip and awkward postures place strain on these tissues.

1. Emails and texts by mobile phone
  - a. Use your mobile for short email/text messages only. If longer than a sentence or two, use your computer or call the recipient.
  - b. Consider using voice to text or use audio messages rather than typing longer text messages or emails on a mobile phone.
  - c. If reading or sending text on your mobile phone, hold it high enough that you can easily read the screen and do not need to look downward.
  - d. Tuck your elbows in close to your body and raise the phone to be face level.



2. Voice calls
  - a. Where privacy allows, use the speaker function.
  - b. Use a headset or ear buds and microphone.
  - c. Consider use of audio or video conferencing on the computer rather than telephone.
  - d. Balance the use of phone with email to shorten the duration of phone calls.

### Low Cost, Quick-fix Home Office Solutions

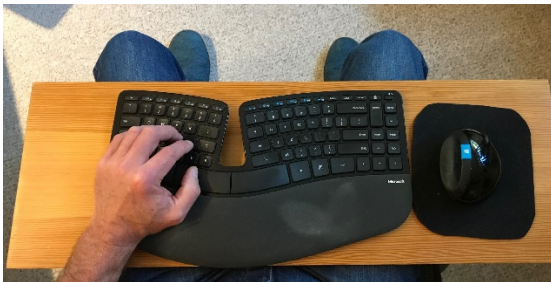
Not everyone has fully adjustable ergonomic chairs, desks, keyboard trays and monitor risers at home. The physical targets for ergonomic configuration of your home workstation can be achieved with some low-cost ingenuity. Some ideas are outlined below.

#### Adjusting chair and keyboard/mouse height

Ideal chair height is with feet solidly on the floor, knees at 90-100° and elbows at or slightly above keyboard/mouse height.

Chair too short to bring elbows up to keyboard height? Keyboard/mouse too high?

1. Add a cushion or a folded towel/blanket on top of the seat pan to raise the chair height. Or,
2. Find a lower worksurface to bring the keyboard/mouse down to elbow height. Or,
3. Lower the keyboard/mouse to your seated elbow height by using a small shelf or plank that rests on your lap to support the keyboard/mouse.



#### Providing foot support

Chair too tall or adjusted too high to provide solid foot support on the floor?

1. See the option above to lower the keyboard/mouse and allow the chair to be lowered. Or,
2. Place a box, books, or footrest beneath your feet to provide support.

#### Peripheral keyboard/mouse

Using a laptop and can't meet physical targets for both monitor and keyboard?

1. Install a peripheral keyboard and mouse. Sets that come with a single USB transmitter and keyboard/mouse in one kit include:

- a. Microsoft Sculpt Ergonomic Desktop (L5V-0002) (contoured keyboard and mouse)



- b. Logitech MK540 Wireless Optical Keyboard/Mouse Combo (straight keyboard)

### Setting monitor height

Ideal target for monitor height is aligning the upper menu to eye height.

Monitor too low or using a laptop as a monitor?

1. Try adjusting the monitor height. Many monitors come with an adjustable stand. Or,
2. Install a monitor riser or laptop riser. Or,
3. Place a shelf, box, books, paper ream or other stable item beneath the monitor or laptop.



Use bifocal, trifocal or progressive lens glasses? Your ideal monitor height is likely lower.

1. If you use a computer for most of your workday, consider getting “computer prescription” lenses. These are full lens glasses intended for reading at 50 to 70 cm distance, which is the ideal distance for a computer monitor. (Normal “readers” are intended for a much shorter focal length and do not work well for a computer).
2. To set the monitor height, open a document with typical sized font for the work that you do. While wearing your glasses, close your eyes and put your head into a relaxed, forward looking position. Open your eyes and look at your monitor without moving your head. If text in the middle of the screen is in focus, you have the correct height. If the bottom of the screen is in focus and it gets worse as you look higher up on the monitor, lower your monitor until the middle of the screen is in focus.

3. Have a hard time lowering your monitor far enough to read mid-screen without tilting your head back, try moving the monitor further away from you. With trifocals and progressives, this may be enough to shift reading into the middle zone of your glasses and allow your neck to relax.

#### Placement of paper documents or reference materials

The ideal location for paper reference materials is between the keyboard and monitor.

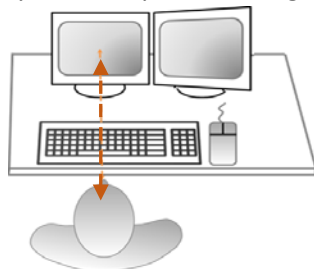
1. Consider the use of an inline document holder such as 3M DH640 or VuRyte 180DC. Or,
2. Use a 3" binder or clipboard to angle the document for easier reading.



#### Using two monitors or a monitor and a laptop as a second monitor

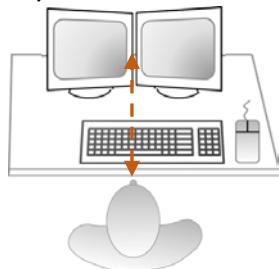
If work benefits from the use of two monitors, configuration of two monitors is essentially the same as use of a single monitor or use of a single monitor with reference documents. A second monitor is really only needed if you use electronic reference documents and need to be able to view two programs at the same time, if you use very large spreadsheets that don't work well on a single monitor, or if you deal with emails that need to be constantly monitored.

1. Figure out how you are going to use the monitors. If you can, use one monitor for most of your work and the second monitor for reference materials or to keep an eye on what is coming through your email.
2. If one monitor is used for most work, align the primary monitor in the same way that you would if it was the only monitor. Centred on you and your keyboard, arm's length away and top of the monitor at eye height. The second monitor should be placed immediately beside the primary, with no gap, and on the mouse side (usually the right). Then angle the second monitor slightly towards you to keep the reading distance the same across the width of the entire monitor.



3. If two monitors are used equally, align the midpoint between the monitors to your keyboard and angle both monitors towards you. This is less ideal than using a single monitor or using one

monitor for most of your work because you will always need to look either to the left or to the right – very little work will land on the perfect spot directly in front of you.



4. If using a laptop as your secondary monitor, you have two choices:
  - a. Treat the laptop like a normal monitor and put it to the right of the primary and adjusted so the top line of the monitor is at eye height.



Or,

- b. If your primary monitor is on a riser that is high enough, treat the laptop like an inline document holder and keep it immediately in front of the primary monitor - between the keyboard and the primary monitor. Angle the laptop monitor so you can see the lower menu bar on the primary monitor. Use the laptop for reference materials only.



5. Using the secondary monitor to track incoming emails only? That works but move longer emails that you read or write onto the primary monitor. This will avoid prolonged awkward neck postures.
6. Video conferencing and using the camera and microphone on your laptop? Make sure the video window that you are looking at is positioned on your laptop. This will keep the image of you looking at the web conference and avoid the appearance that you are looking somewhere else.



## Working at Home Lifestyle Tips

Working from home presents challenges and benefits that may differ from the usual workplace. Tips to manage some of these challenges are outlined below. Not all tips are relevant for everyone. Select those that fit with your home and your living situation.

1. Establish separation. Work/Life balance is easier if there is a clear distinction between your work life and your non-work life. Having a predictable routine is better for you, your employer and those you live with.
  - a. Physical separation: identify a workspace or workstation that you can configure for working. Use that for work. Keep the rest of your home for non-work activities.
  - b. Time routine: define work hours that represent your usual work hours and that allow connection and availability with co-workers. Use that for work. Keep the rest of your time for non-work activities. If you have kids at home, discuss with your manager, if needed, as to how best to schedule your work.
  - c. Personal preparation: maintain a morning routine that prepares you for work. Exercise, breakfast, personal hygiene, getting dressed for work, or whatever your usual routine would entail.
  - d. Personal maintenance: keep a workday routine that includes regular short breaks. Get up every hour to move, to stay hydrated, to eat, or to check in with others sharing your living space.
2. Maintain connection. Work from home reduces touchpoints that you may otherwise have with co-workers, supervisors, students. Connection supports mental health and productive work.
  - a. Schedule a regular telephone or web-conference check-in with your supervisor, co-workers, or workers who are supervised by you. This type of check-in is more organic and has greater interpersonal value than an email or text message.
  - b. Increase the frequency of check-in if you or a co-worker are isolated and not sharing living space with others.