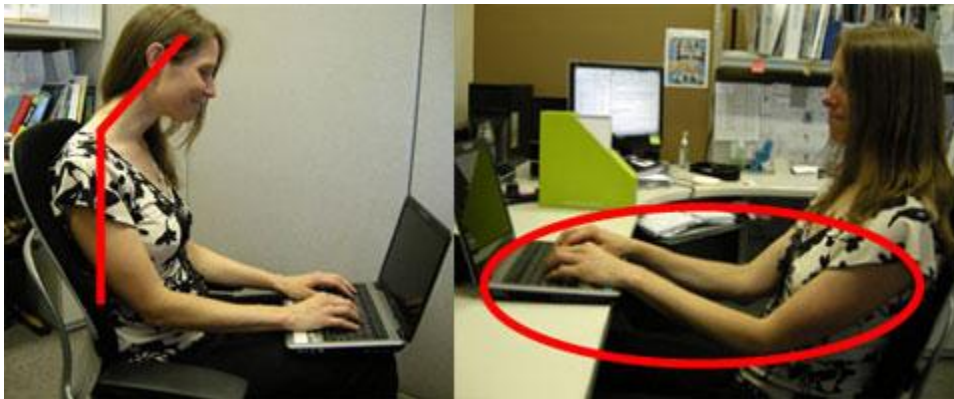


# Laptop Ergonomics

Laptops are convenient and portable; they allow us to take our computers with us to work almost anywhere. Unfortunately, the ergonomics of laptop work is not ideal, particularly so when one uses a laptop as their primary computer. Although I was aware that many people use their laptops for sustained periods of time, over the last few months I have been surprised to see a number of people working on their laptops full-time here at UBC.

## What are the risks?

The most obvious ergonomic risk of using a laptop comes from having the keyboard and monitor attached. This forces you to choose between adopting either a poor neck posture, or a poor forearm/hand posture. These postures can not only cause discomfort; they can also increase the risk of developing a musculoskeletal injury (MSI).



Poor neck posture versus poor forearm/hand posture

Laptop screens are generally smaller than standard computer monitors, which can cause more eye and neck strain as people tend to lean forward to read what is on their screen.

Many users tend to rest their wrists on the ledge of the laptop and extend their wrists while typing. Wrist extension and contact pressure are known risk factors for carpal tunnel syndrome.



Resting wrists on the edge of the laptop

Additionally, the keyboard on a laptop is generally more condensed than a standard keyboard, which for many users, particularly those with larger hands, results in increased ulnar deviation (another risk factor for carpal tunnel syndrome).



A visual representation of ulnar deviation

### **What Can You Do?**

Ideally, if you are using your laptop as your primary computer, you should obtain an external monitor, keyboard and mouse. If it is not feasible to obtain an external monitor, you should at least obtain an external keyboard and mouse and use a [laptop stand](#) or book to raise your laptop screen. The height of your monitor should be adjusted so that the top line of the text is at eye level, and your keyboard and mouse should be just below elbow level. If you do not have access to a keyboard tray, this may require you to raise your chair to the maximum height and use a footrest or books to support your feet. For help with setting up your computer workstation, please check out our online resources or request assistance from your [office ergo rep](#) or complete an [ergonomics request form](#) for an individual assessment.

[Office Ergo Rep Training](#) courses are held 4 times per year. We strive to have at least one rep in each department. Participants will learn basic ergonomic principles, how to conduct office ergo assessments and how to solve minor ergonomic problems for their colleagues. Additional training material will be provided to enable participants to pass on their learning and training to colleagues. [Online registration available](#)