Computer use is a routine part of many Colby employees’ workday. If you work on a computer in a poorly setup workstation for more than four hours, you are at a greater risk for developing pain or an injury.

To prevent this, improve productivity and your overall comfort, there are some simple steps you can take to evaluate and arrange your workstation.

The following Safety Talk will introduce some basic office ergonomics concepts and should be reviewed by all employees who work at a computer for at least half of the workday.

**Ergonomics** is a term we're hearing more and more often. What does it mean? In general terms, ergonomics is the study of **fitting the job to the worker rather than the worker to the job**. In relation to computer use, Colby’s goal is to provide the right equipment and teach you to adjust your workstation to be ergonomically correct with as little physical strain as possible.

9 out of 10 people suffer from pain linked to the way they work at their desks.
Injury concerns related to workstation setup focus on cumulative trauma disorders (CTDs) or musculoskeletal disorders such as carpal tunnel syndrome, pain in the neck and back, headaches, general tension, dizziness and, eyestrain. Let’s take a look at some things you can do to avoid or alleviate these types of problems.

**CHAIR:** Chair setup is the first and most critical part of workstation ergonomics.
- Set chair height so your feet rest comfortably on the floor
- Seat pan and back must be sized to fit you
- Good lumbar support in the small of the back, relaxed shoulders
- Adjust armrest slightly forward of hips and in close to your body (or remove)

**KEYBOARD AND MOUSE:** Proper position is essential for preventing wrist arm and shoulder pain.
- Position keyboard slightly below elbow height
- Close enough that your elbows are just past your hips
- Mouse parallel to keyboard

**MONITOR/REFERENCE MATERIALS:** Incorrect monitor placement can lead to neck pain and eyestrain.
- Position monitor 90° in front of your chair
- Top of screen at eye level or slightly below
- Monitor should be approximately an arms length away
- Duel monitors should be the same and positioned next to each other
- Position reference materials as close to the monitor as possible and at the same height (use a document holder)
- Close enough that your elbows are just past your hips
- Mouse parallel to keyboard
**EYESTRAIN**: Computer-related eyestrain is also very common and can cause headaches and fatigue. Eyestrain is caused primarily by improper lighting in your workstation. Take the following steps to improve lighting in your workstation:

- Position yourself and your computer to eliminate or minimize glare on your screen.
- Never shine a lamp directly onto the screen.
- If you work near a window, adjust the blinds or shades to improve the lighting and cut the glare.
- Place the computer at right angles to the window.
- Angle the display screen to avoid blacklight glare.
- Move bright objects away from your terminal.
- Adjust the brightness and contrast on the screen.
- Give your eyes breaks, taking your eyes off the display screen and focusing on a faraway object for a few seconds (20 feet for 20 seconds).

**WORK HABIT CHANGES**: As important as your workstation setup, work habits can dramatically effect your chance of getting injured. Incorporate the following “good habits”:

- Change your position frequently during the course of the workday.
- Use Alt function as much as possible to reduce mouse use.
- Use a headset if you are on the computer and phone at the same time.
- Stand to reach items near or above your desk.
- Squat and use good lifting techniques when removing items from bottom shelves or drawers.
- Make physical fitness part of your day. Get away from your workstation during down times and be active. Try taking a walk at lunch.
SAFE LAPTOP USE: Highly portable, a laptop's compact design, with attached screen and keyboard, forces laptop users into awkward postures. When the screen is at the right height, the keyboard position is too high; and when the keyboard is at the right height, the screen is too low.

Laptops pose less risk when used for short periods of time, but nowadays, many people use laptops as their main computer. This creates an ongoing tradeoff between poor neck/head posture and poor hand/wrist posture.

- Maintain a neutral neck posture by placing the top of the screen at about eye level
- Use a laptop stand or place your laptop on a stable support surface, such as monitor risers, reams of paper, or phone books so that the screen height can be adjusted.
- Attach a regular size, external keyboard mouse to the laptop, and place them on an adjustable keyboard tray or desk. The keyboard and mouse should be positioned at or slightly below elbow height.
- Use a docking station whenever possible to more closely resemble a standard desktop workstation where input devices can be attached.

WORKING FROM HOME: Covid-19 has forced many employees to work remotely. The same workstation principles still apply. In addition, utilize the following safety measures as much as possible:

- Use dedicated home office space whenever possible. This space should meet the basic ergonomic requirements of any other work space
- Your office should be equipped with a desk, adjustable office chair, and desktop computer
- If not in a dedicated office space, or using a laptop as the primary computer, the laptop should be elevated to position the screen at eye level....More below
BY THE NUMBERS:

675,000 The number of computer workstations in use across the US in 1976

50 Million Current estimate of number of computer workstations in use in US

11% Average increase in productivity due to ergonomic workplace design

This Safety Talk only briefly addresses some of the concepts and potential actions you can take to assess and correct your office workstation. Additional informational material can be accessed by following the links below or by contacting Colby’s EHS Director:

- **Office Ergonomics Training:** An interactive presentation designed by Travelers Insurance to help individuals self evaluate and recognize issues with their workstation.
  - https://moodle.colby.edu/course/view.php?id=5324

- **Safety Works Maine Video Display Terminal (VDT) Law and Training Program presentation:** 79 slides on Maine’s VDT, proper workstation setup, and corrective actions.
  - http://www.safetyworksmaine.com/training/online_classes/vdt/VDT-Main.htm

- **Workplace Ergonomics Reference Guide:** Checklists and strategies to recognize and prevent workstation related injuries.