



CHAPTER 3: THE ART OF ERGONOMICS

Creating a good ergonomic working arrangement is an important part of protecting your health. As an online student, you'll be spending a lot of time at your computer—so you should be comfortable. When you set up your home classroom, ask yourself these questions and refer to the tips suggested by Cornell University's Ergonomics Web (CU Ergo). For incredibly thorough ergonomics information, refer back to CU Ergo at <http://ergo.human.cornell.edu>.

Computer Workstation Ergonomics

1. **Who will be using the computer?** If it's just you, optimize the desk, chair, and monitor height for yourself.
 - **TIP 1:** If you are sharing the workstation, create an arrangement that includes separate chairs or chairs that allow you to modify height and tilt.
 - **TIP 2:** Consider an adaptable workstation that allows the user to sit or stand.
2. **Will you be using a desktop or a laptop computer?** Desktop computers have monitors that are separate from the keyboard. This makes it easier to create an ergonomic arrangement.
 - **TIP 1:** Use stackers to place and center the monitor or laptop in a position that keeps your neck and body neutral.

- **TIP 2:** Place the monitor or the laptop at an arm's length from you. This distance keeps you in a neutral position, without leaning forward or slouching down. It also helps prevent eyestrain.
3. **What type of desk are you using?** Most desks are set up for desktop computers, though laptop computers are increasingly popular. Make sure that your computer is placed on a stable working surface.
 - **TIP 1:** Get a desk with an adjustable keyboard tray, or add one to your existing desk. Keyboard trays allow you to type at a comfortable position that is neutral for your arms and wrists.
 - **TIP 2:** Consider a sit/stand desk. By adjusting a lever, the desk can be raised up to accommodate a standing position. A sit/stand desk encourages you to move and change positions regularly.
 - **TIP 3:** If you are using a laptop for a sustained period of time, a lap desk and external keyboard are recommended to keep your neck and body neutral.
 4. **What type of chair are you using?** Choose a chair that has many ergonomic features: lumbar support, adjustable armrests, and levers for raising and tilting the seat to your preference.
 - **TIP 1:** Keep your back naturally curved. Support your lower back with a lumbar support cushion. This helps maintain the natural curve of the spine.
 - **TIP 2:** Keep your feet flat on the floor or the footrest. This reduces tension in the knees and ankle joints.
 - **TIP 3:** Take breaks from sitting in your chair to stand up and stretch. This decreases the pressure on the spine.
 - **TIP 4:** Avoid leaning forward in your chair to look at the screen. Use the keyboard and the mouse. This helps maintain a relaxed neutral posture.
 - **TIP 5:** Rest your elbow lightly on a chair armrest while you are typing or doing another task. This avoids creating pressure points.
 5. **What type of keyboard and mouse are you using?** Many ergonomic keyboards, mice, and wrist rests are available at computer stores. Before purchasing a product, see if there is research behind the claim that it is ergonomic. For most people, typing at the proper neutral position is the most important aspect of keyboard safety.
 - **TIP1:** Position the keyboard so that your forearms are parallel to your thighs when your feet are flat on the floor. This helps maintain blood flow in the hands and arms and decreases muscle strain and tension.
 - **TIP 2:** Place the mouse on the side of the hand that is most comfortable to you. This keeps the arms in a neutral and relaxed position and prevents overreaching and twisting of the shoulder, arm, and wrist.
 6. **How is the light?** If the lighting is too bright or causes glare on the screen, you can develop eyestrain or headaches.
 - **TIP 1:** Add an anti-glare screen to reduce eyestrain.
 - **TIP 2:** Move the monitor or adjust the natural and artificial lighting in the room until it is comfortable on the eyes.

7. **How is your posture?** You should sit back in the chair with your feet touching the floor, your head and neck straight, and your wrists as flat as possible.
 - **TIP 1:** Make sure that you can reach the keyboard keys with your wrists as flat as possible (not bent up or down) and straight (not bent left or right).
 - **TIP 2:** Make sure that your upper arms and elbows are relaxed and close to your body for mouse use. Ensure that your wrist is as straight as possible when you're using the mouse.
 - **TIP 3:** Make sure you sit with your back against the chair.
 - **TIP 4:** Make sure your head and neck are straight.
 - **TIP 5:** Make sure your feet can be placed flat on the floor or on a footrest.
8. **Does your workstation need any ergonomic add-ons?** Many consumer products are marketed as ergonomic solutions. In general, you really need only what helps you achieve the recommended posture.
 - **TIP 1:** Use a document holder and place it in front of or next to the monitor. This prevents neck and eyestrain. Place frequently used objects (such as phone, books) close to you to prevent strain from repetitive reaching.
 - **TIP 2:** Use a footrest if your feet do not lie flat on the floor.
 - **TIP 3:** Add a stacker to raise your monitor to eye level.
 - **TIP 4:** Add a lumbar support cushion for back support, if your chair lacks lumbar support.

To review checklists prior to purchasing and setting up your workstation, visit the OSHA Web site at <http://www.osha.gov>. Select eTools from the Compliance Assistance menu and then select Computer Workstations from the Ergonomics eTools list. From there you can print a purchasing guide and ergonomic compliance checklist. Good health habits are the foundation for success. Repetitive strain injuries are preventable with ergonomic awareness.