



level of non-computer work areas. Use task lighting to illuminate documents.

- Reduce overhead lighting by turning off lights or switching to “computer compatible” lamps (available through Central Stores).
- To minimize glare, turn the monitor perpendicular to light sources and draw window shades or curtains to reduce the level of outside lighting.

#### *Step 5—Adjusting Office Equipment*

- Position document holders close to the screen and at the same level and distance from the eye to avoid constant changes in focus. Periodically move the it to the opposite side of the screen.
- Place frequently used items within easy reach to avoid repeated and prolonged bending and reaching.

#### *Step 6—Adjusting Work Practices*

- Minimize fatigue and discomfort by alternating tasks and changing body posture often.
- When keyboarding, use a light touch to minimize strain on muscles and tendons. A “wrist rest”, if used, should support the palms of the hands when typing.
- Avoid awkward body positions, (extended reaches and using a shoulder as a telephone rest).
- Take short, frequent rest breaks and

- longer breaks (several minutes) hourly.
- Blink often and periodically refocus on distant objects to reduce vision fatigue. Use the “20/20” rule—every 20 minutes look 20 feet away for 20 seconds.

#### *Step 7—Getting Assistance*

If you have questions about workplace ergonomics or would like to arrange for a workstation evaluation, contact EH&S. Information is also available at [www.ehs.wsu.edu/ohs/ohs-ergo.htm](http://www.ehs.wsu.edu/ohs/ohs-ergo.htm).

For computer furniture acquisition and trial, contact Central Stores. Contact Facilities Operations for assistance with interior design and furniture layout.



#### **Environmental Health & Safety**

P.O. Box 641172  
Pullman, WA 99164-1172  
(509) 335-3041

Wenatchee.....509-663-8181  
TriCities.....509-372-7163  
Vancouver.....360-546-9706  
Spokane.....509-358-7993

<http://www.ehs.wsu.edu>

# Office Ergonomics



## Adjusting Your Environment

Ergonomically-sound practices should be implemented when setting-up computer workstations to enhance comfort and productivity. Use these general guidelines as a starting point when adjusting your furniture and computers and arranging the layout of work. Specific individual adjustments can then be made based on personal preference and comfort. Several adjustments may be necessary over time to find the most comfortable position.

### Step 1—Adjusting Your Chair

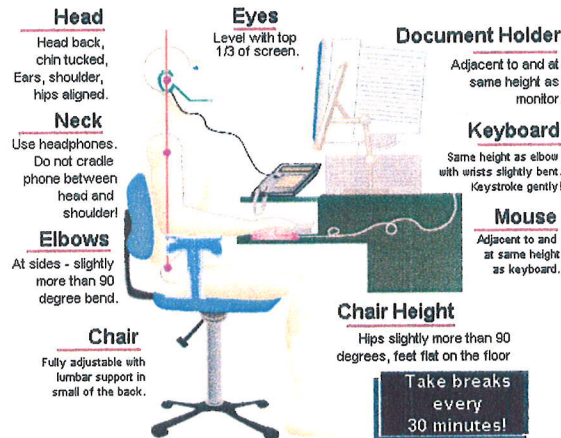
To adjust your chair, begin by facing it away from your workstation. Make the following adjustments based on your chair's features:

- Chair height so feet are flat on the floor, knees slightly below hips (angle between torso and thighs at 90 degrees or more).
- Seat tilt is level or slopes slightly downward, with two fingers width between the seat cushion and back of knees.
- Backrest angle slightly reclined and supports lumbar region (at or slightly below belt line). If necessary, place pillows, cushions, or a small rolled-up towel in the curve of the lower back.
- Armrests slightly wider than shoulder-width apart and fully support arms without being pushed upward. Unsupported arms will cause shoulders to droop.

### Step 2—Adjusting Your Keyboard/Mouse

Leaving your chair at the set position obtained in *Step 1*, turn your chair toward your work station to adjust your keyboard and mouse.

- Adjust keyboard and mouse height and angle so upper arms are nearly vertical and forearms are parallel to the floor. The home row keys should be at the fingertips with your *wrists straight* in the natural position (allow arms to hang down in a relaxed manner and then raise forearms parallel to floor).



- If forearms are angled slightly up or down, to maintain the natural position, the keyboard should also angle up (positive tilt) or down (negative tilt), respectively.
- Position mouse as close to the keyboard as possible and at the same height. When possible, use a keyboard tray wide enough to place the mouse

adjacent to the keyboard.

If the keyboard/mouse is placed on the desktop, it may be necessary to either raise or lower the desk to place the keyboard/mouse at the right height.

If the desktop is too high, place the keyboard on an open desk drawer and/or raise the seat height and use a footrest for support. Some desks can be equipped with an adjustable keyboard/mouse tray.

### Step 3—Adjusting Your Monitor

Position the monitor to minimize glare and reflections from overhead lights and exterior light sources such as windows.

- Place monitor directly in front of you, with the top of the screen no higher than eye level. Use a monitor pedestals, phone books, or other stable materials to raise a too low monitor.
- Place the monitor as far away from you as possible while still allowing you to easily read the screen—longer distances relax the eyes.
- Choose soothing background colors, such as green, blue, or white. Dark letters on a light background are easier to read.
- Keep the screen clean of by wiping it very lightly every few days with an anti-static cloth or other manufacturer recommended cleaner.

### Step 4—Adjusting the Lighting

Computer work areas should have moderate, indirect lighting, about half the