

Office Ergonomic Self-Evaluation

U of M Office Ergonomics Committee
November 2018



UNIVERSITY OF MINNESOTA

Old workstation in need of complete make over

- Thick desk
- Chair with no adjustments
- Keyboard and mouse probably too high



Benefits of self assessment

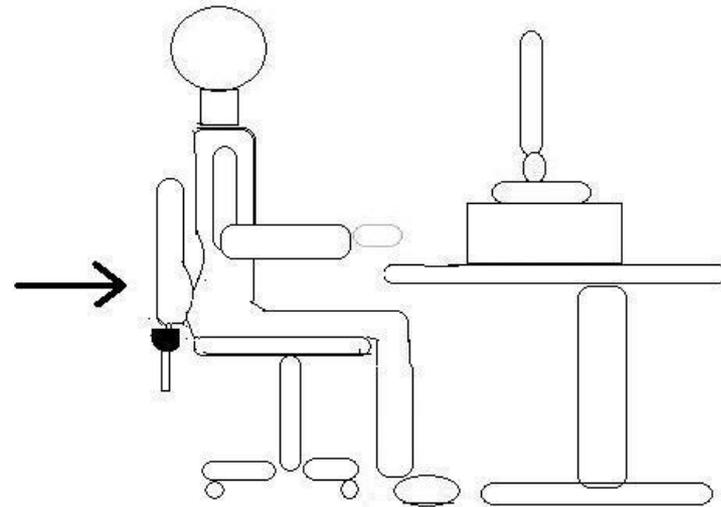
- Employees can quickly make adjustments to improve their workstation
- Allows DEHS ergonomists to focus on significant areas of concern
- The illustrations and photos cover most of the common ergonomic problems and solutions
- DEHS will continue to do personal evaluations for U of MN employees if they are unable to make the modifications

Use the following diagrams and photos to adjust your workstation

- Common chair adjustments
- Keyboard height
- Use of footrest
- Monitor placement
- Mouse placement
- Center keyboard and monitor
- Document placement
- Problems that need immediate attention

Adjust your chair back height

- The back rest is often too low
- Loosen the knob highlighted in black
- Adjust back height to maximize lumbar support
- Tighten knob
- Consult manufacturers directions for other chairs

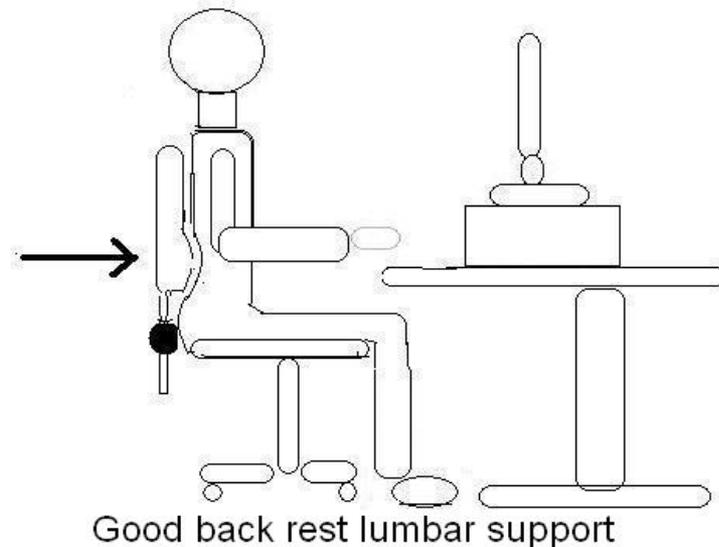


Back rest lumbar support too low



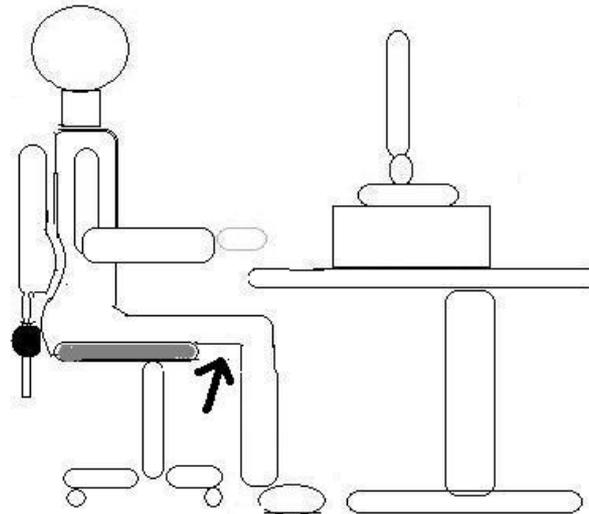
Adjust your chair back height (cont.)

- This will need to be rechecked two to four times per year because the knob tends to loosen



Adjust your chair seat depth

- This chair seat is too shallow
- Adjust seat pan to the proper depth
- This option is available on most chairs
- Less than six inches of leg should be unsupported in front of the chair

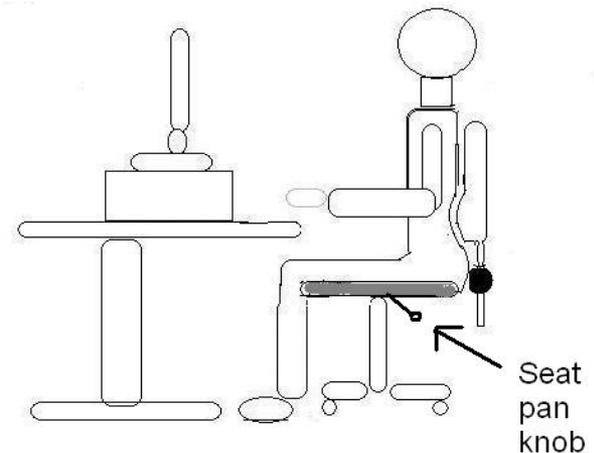
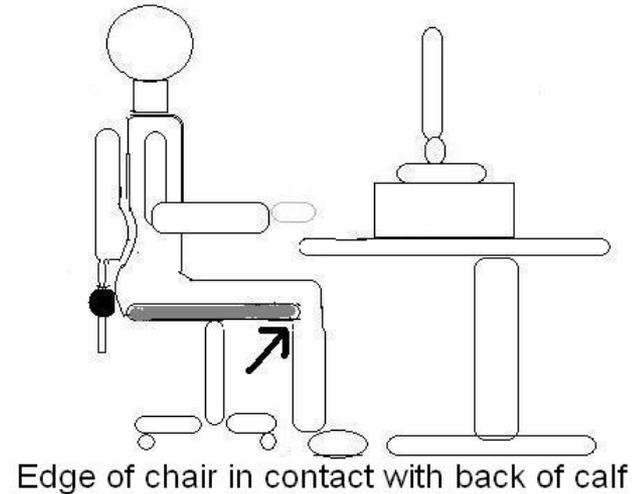


Chair seat supports less than 2/3 of leg



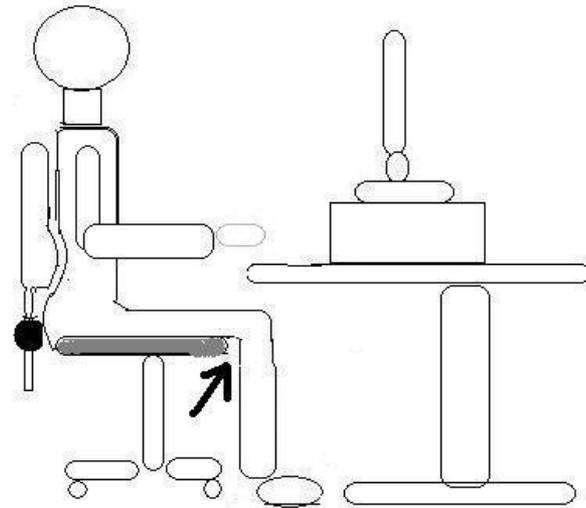
Adjust your chair seat depth (cont.)

- This chair seat is too deep
- The seat may be adjusted by pulling out a knob on the side opposite the up and down lever



Adjust your chair seat depth (cont.)

- This chair seat depth is just right
- Consult with the chair manufacturer on the mechanism to adjust chair depth
- Some chairs do not have this option

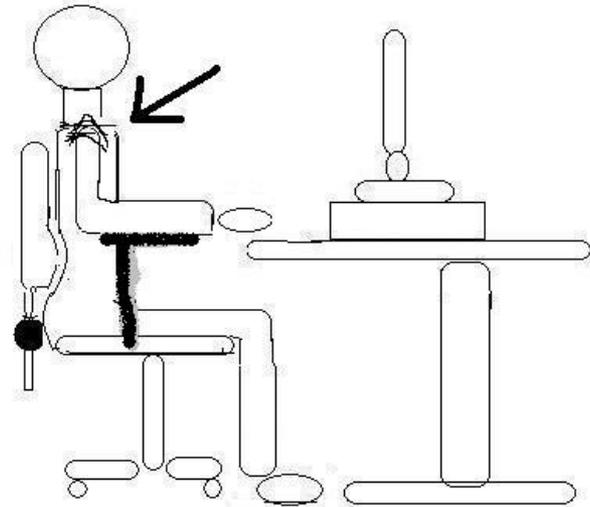


Gap from edge of chair to calf should be 1 to 3 inches



Adjust the arm support

- When arm rests are set too high shoulder pain may be experienced
- Arm rests should be height-adjustable

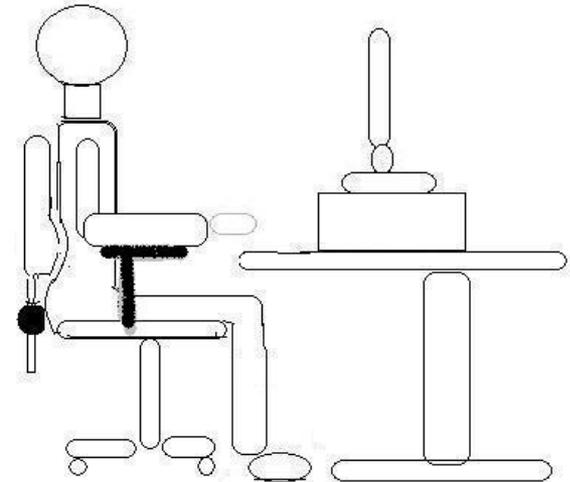


Arm rest too high = shoulder pain



Adjust the arm support (cont.)

- Resting elbow height should allow the shoulders to be relaxed



Arm rest at resting elbow height



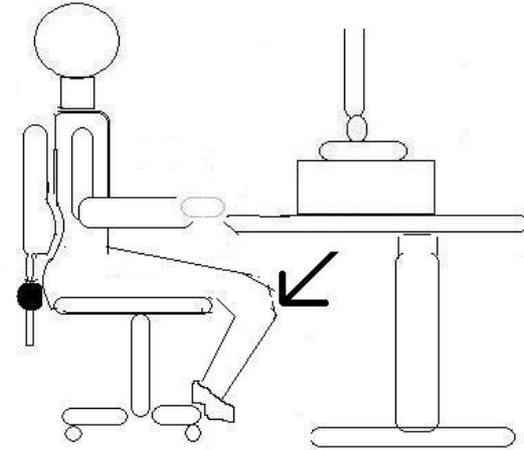
DEHS does not recommend use of exercise ball for a primary chair.

- The chair is not height adjustable
- Upper back support is non-existent
- No arm support



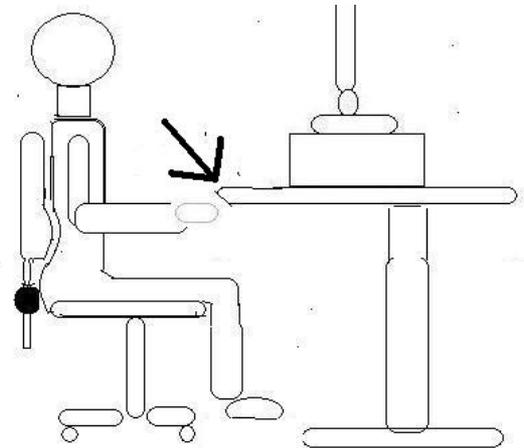
Fix a workstation that is too high

- This chair and desk are too high



Chair too high - Knee lower than hip

- Elbow height is below the keyboard height
- The desk is too high

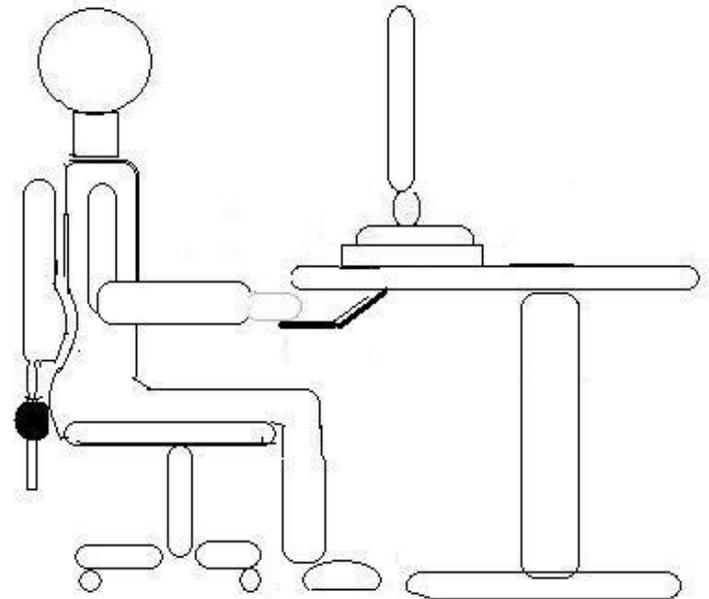


Typing surface higher than elbow



Install a keyboard tray

- Solution 1: install a height-adjustable **keyboard tray**
- A keyboard tray reduces stress on the legs allowing the feet to touch the floor
- The keyboard tray facilitates proper arm posture

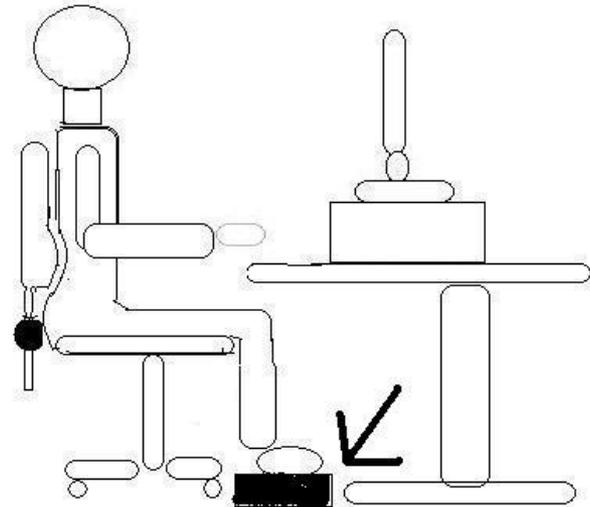


Keyboard tray used for low chair



Use a footrest

- The footrest reduces stress on the leg with the thigh parallel to the floor
- The footrest also promotes good back posture

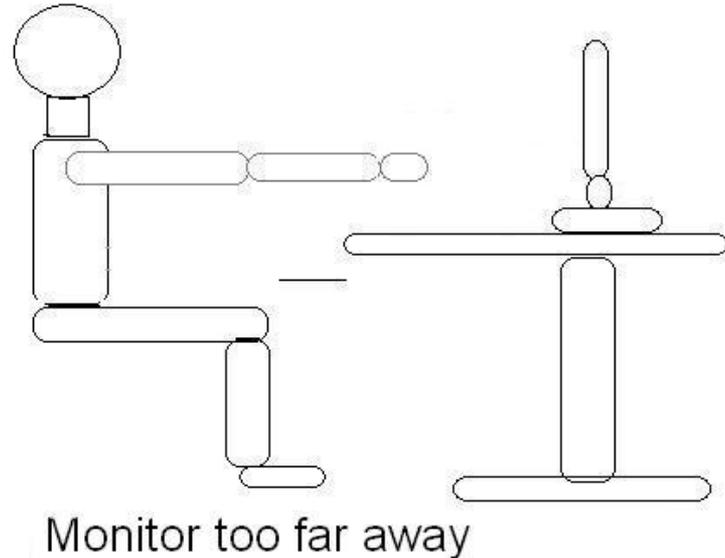


Footrest puts knee and hip at same height



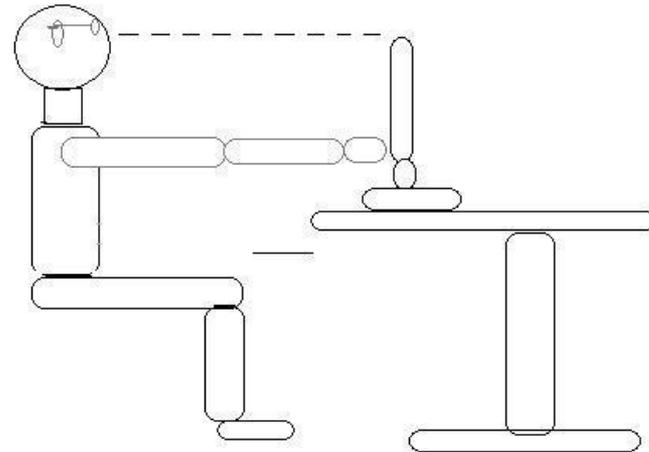
Adjust monitor placement

- For people without bifocals, the monitor distance should be approximately one arm's length



Adjust monitor placement (cont.)

- This arm's length distance allows people to view the monitor without bending forward or straining their eyes
- Set monitor at eye level



Typical distance from eye to monitor

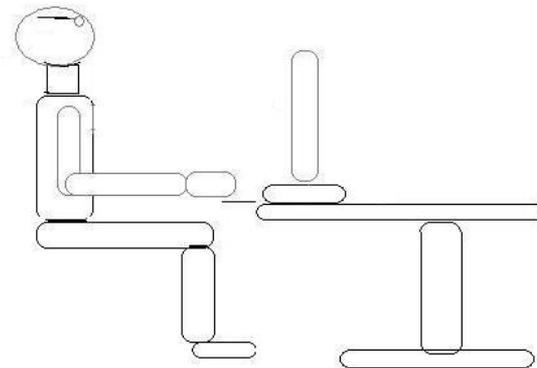


Monitor placement –Bifocals only

- The monitor should be lower and closer for people using the bifocal lens
- Single lens computer glasses may also be used. Computer glasses are used for distances of 20 to 30 inches
- Reading glasses are used for distances less than 20 inches



Monitor is too high. Neck tilt back = neck pain!

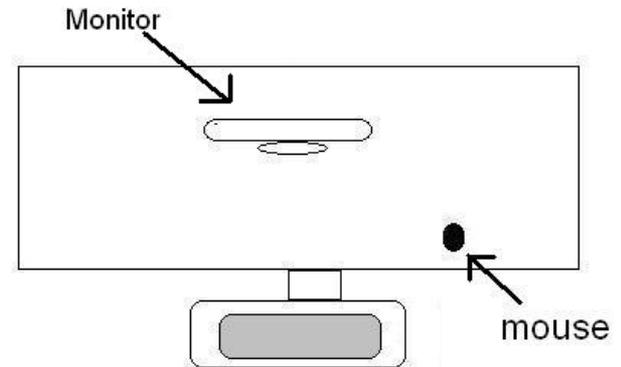


A lower closer monitor reduces neck pain



Adjust the placement of the mouse

- The mouse should be close to the keyboard slightly above the surface of the keyboard platform

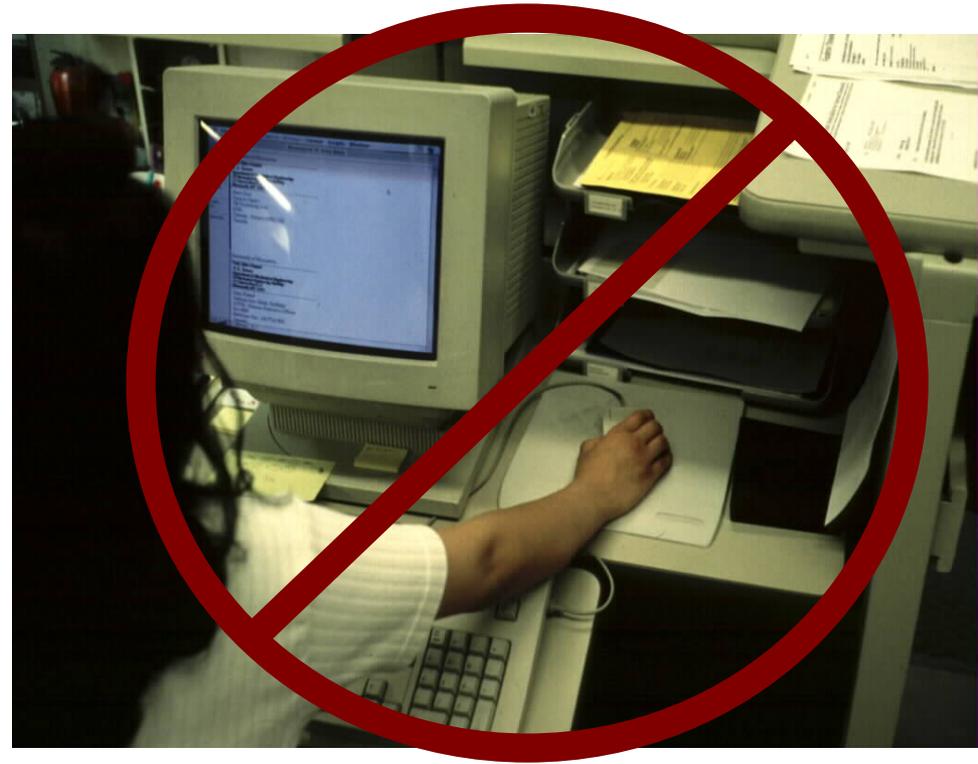


Poor mouse position on desk
above and away from keyboard



Adjust the placement of the mouse (cont.)

- Locating the mouse on the desk can result in shoulder discomfort caused by reaching for the mouse



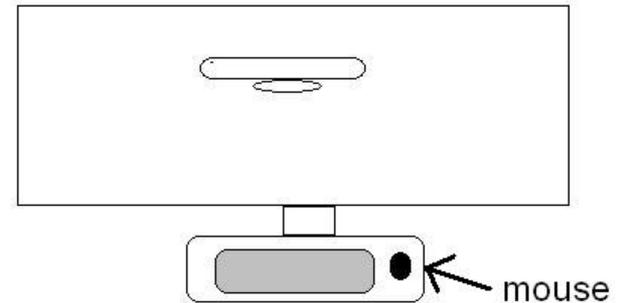
Adjust the placement of the mouse (cont.)

- The mouse should never be lower than the keyboard. This can result in wrist and shoulder discomfort caused by reaching and bending the wrist



Adjust the placement of the mouse (cont.)

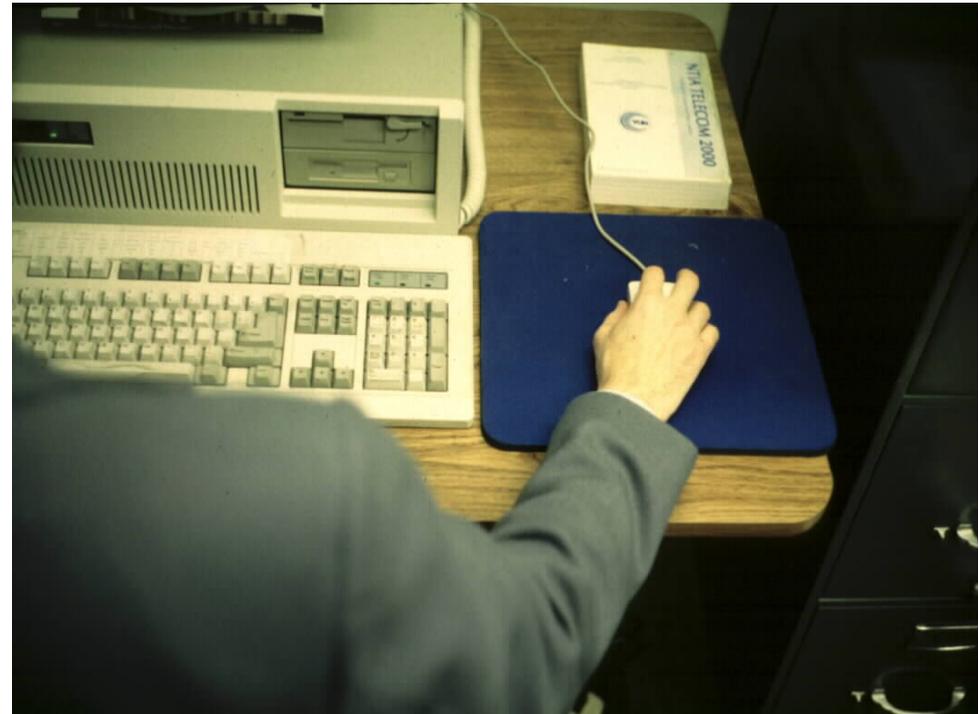
- The mouse should be close to the keyboard at or slightly above the surface of the keyboard platform



Standard mouse set up at same height as keyboard

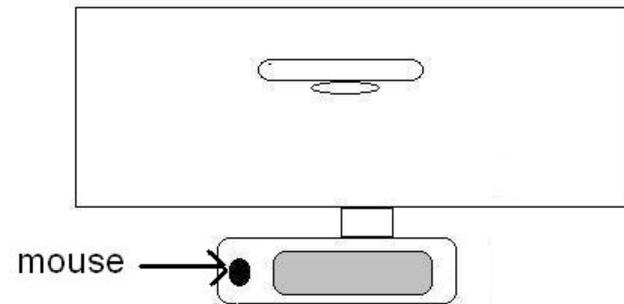
Adjust the placement of the mouse (cont.)

- Some stress may be noticed because the 10 keypad on the right may cause the right arm to be in an awkward position



Adjust the placement of the mouse (cont.)

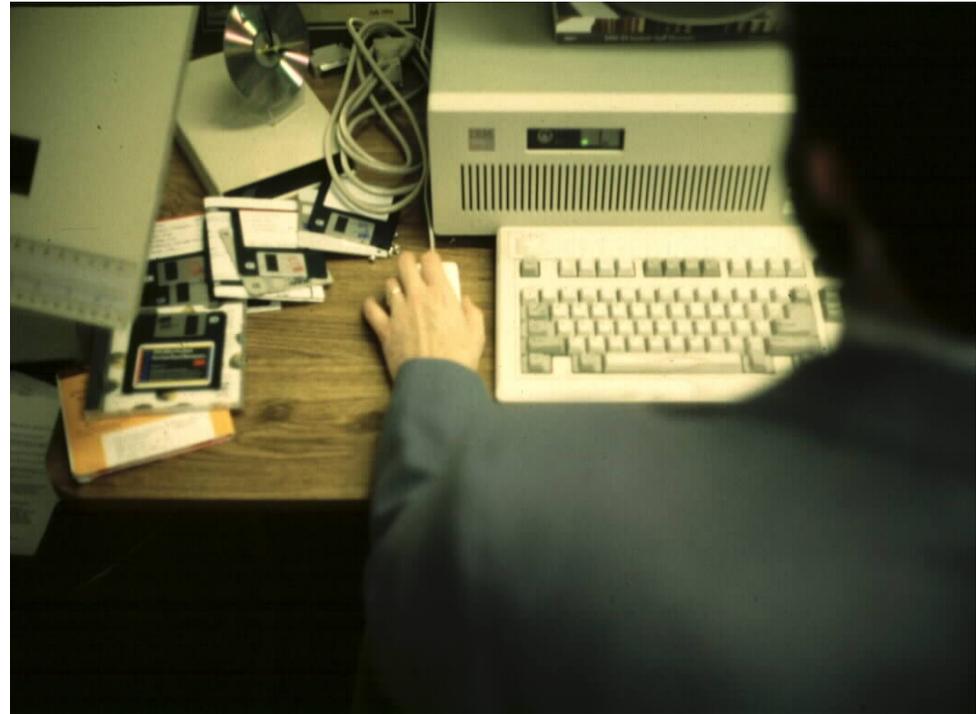
- Some individuals use the mouse on the left to work more efficiently with spreadsheets



Mouse on left side reduces stress on right hand

Adjust the placement of the mouse (cont.)

- Locating the mouse on the left reduces stress on right hand and shoulder because the 10 key is not in the way
- For tall people or people using a footrest the mouse can be placed on the desk top



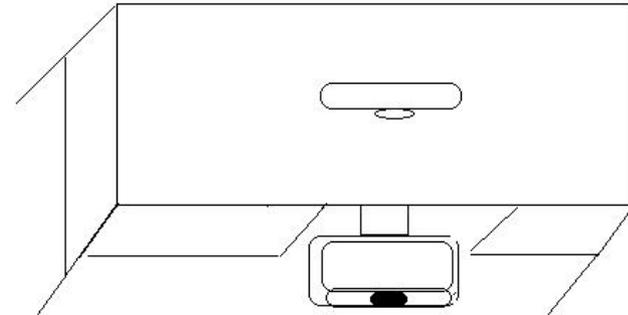
Adjust the placement of the mouse by changing the keyboard

- A keyboard with the 10 key pad on the left side reduces the stress of using the mouse on the right side.



Adjust the placement of the mouse

- The roller mouse is useful in tight spaces
- With heavy use, stress may be noticed on the index finger or thumb

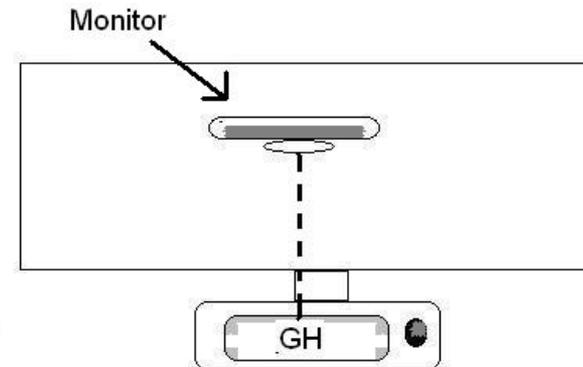


A roller mouse can be used when there is no room for a mouse on the side



Align the keyboard with the monitor

- Do not center the monitor with the middle of the keyboard platform

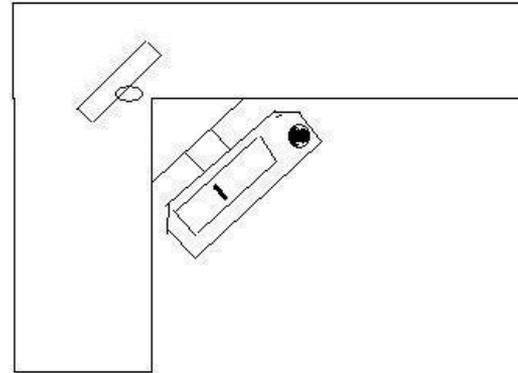


Align the monitor with the "G" and "H" keys on the keyboard



Align the keyboard with the monitor (cont.)

- Do not center the monitor with the middle of the clipped edge keyboard platform

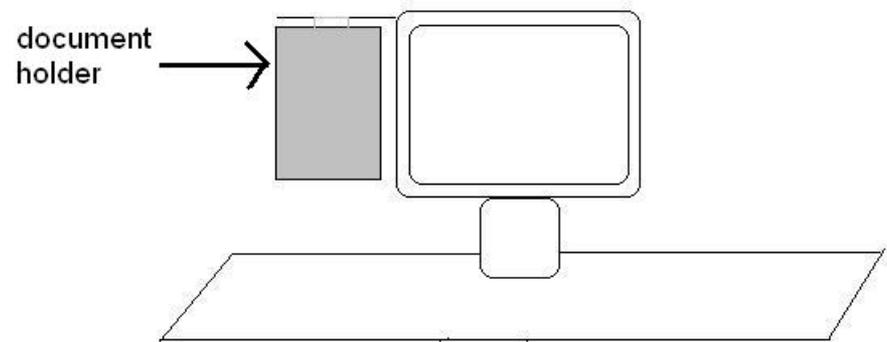


Center the monitor with "G" and "H" keys
not the middle of the platform holding the
keyboard and mouse



Set-up a document holder

- Documents placed on the desk often result in poor neck posture
- This set-up works for a single sheet

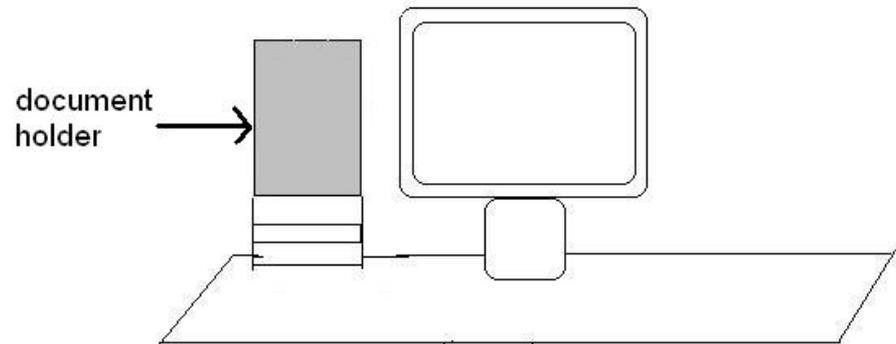


Side clip on document holder for single sheets



Set up a document holder (cont.)

- Several sheets can be held using this document holder.

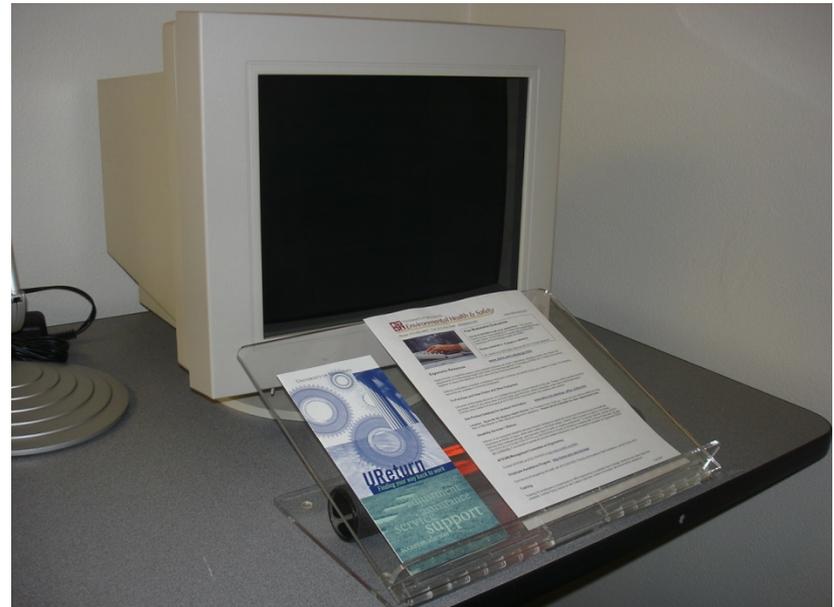


Free standing document holder to the side and same height as the monitor



Set up a document holder (cont.)

- This is the most popular document holder
- It can hold two 8 x 11 inch sheets side by side.
- This set up may not work for people with bifocals or progressive lenses.



Free-standing document holder
below the monitor



Headset for the phone

- A wireless headset maybe worthwhile if:
- Phone use is greater than 2 hours per day
 - The computer and the phone need to be used at the same time
 - Using a speaker phone is not an option



Replace the desk if it is too thick

- The desk edge is too thick making it impossible to type at the right height or have proper leg clearance

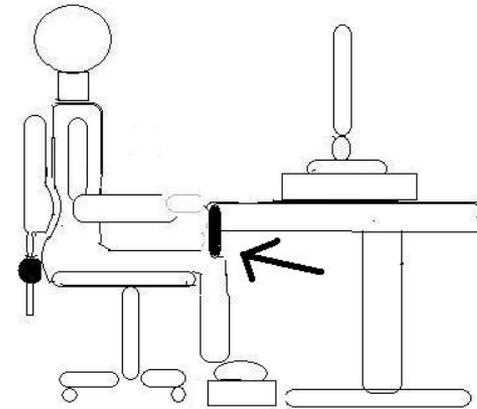
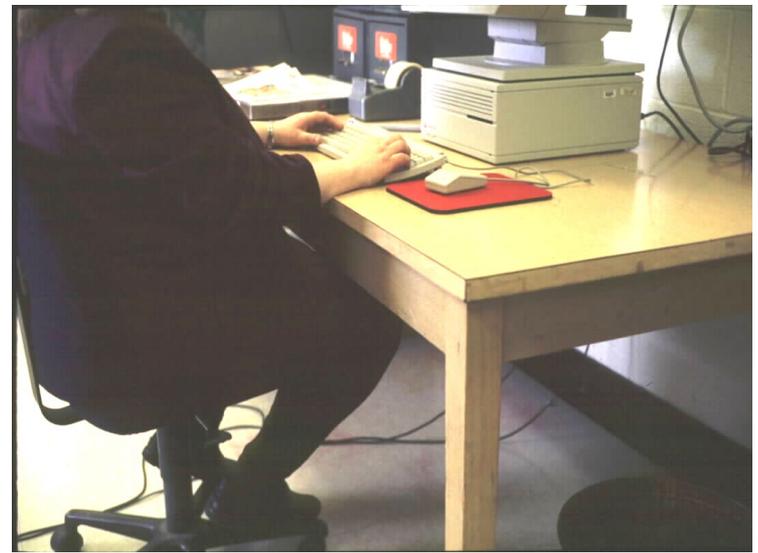
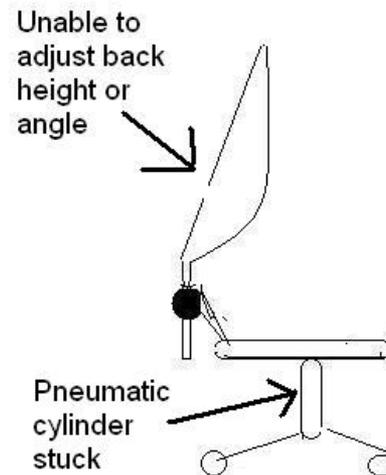


Table too thick (3 inches or more)



Replace a broken chair

- A chair with a four leg wheel base is a tipping hazard. Purchase a chair with a five leg base
- Replace a chair if the pneumatic cylinder is stuck or it will not hold its height
- Check warranty information on chairs less than 10 years old

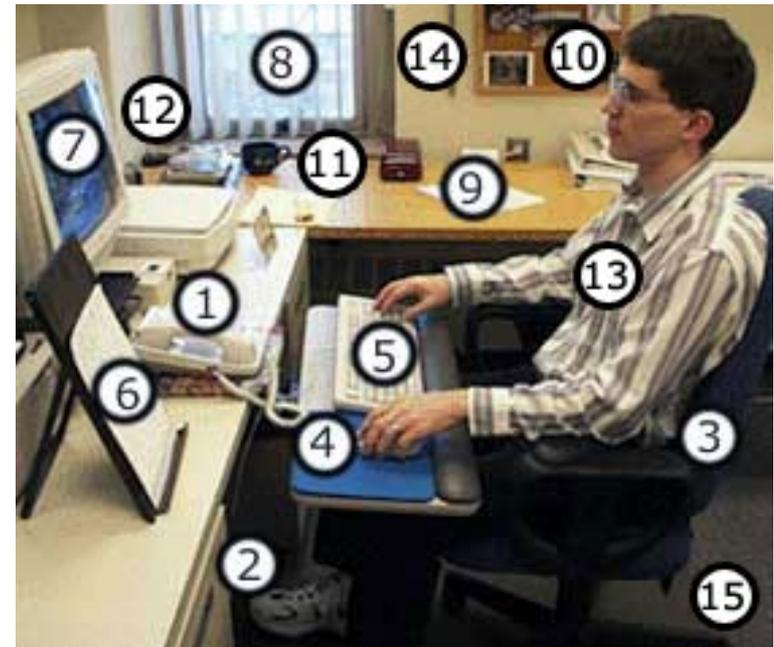


Sit Stand Workstation

- A Sit Stand Workstation offers a change in position
- Work up to a maximum of 4 hours per day standing
- Sit down when discomfort is noted
- Best to not sit for more than 45 minutes at a time



A properly designed workstation



Additional resources are listed on the following page.

More Information on U of M Office Ergonomics

Ergonomics Programs: <https://dehs.umn.edu/ergonomics-programs>

Ergonomic training: <https://dehs.umn.edu/ergonomic-training>

Ergonomic evaluations: <https://dehs.umn.edu/ergonomics-evaluations>

Ergonomic solution center: <https://dehs.umn.edu/ergonomics-solution-center>

Office Ergonomics main page: <https://dehs.umn.edu/office-ergonomics>

Contact information:

Congratulations if you were able to successfully adjust your workstation!

If you still need an ergonomic evaluation contact DEHS by calling (612) 626-6002 or sending email to dehs@umn.edu

Please schedule four weeks in advance.



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