Office Ergonomics

UC DAVIS

OCCUPATIONAL HEALTH SERVICES
PURPOSE

To provide the tools to set up and maintain a healthy office workspace & environment
WHAT IS A GOOD POSTURE?

- Head upright and over your shoulders.
- Eyes looking slightly downward (30° range from horizontal line of sight) without bending from the neck.
- Wrist in a neutral posture (straight).
- Back should be supported by the backrest of the chair that promotes the natural curve of the lower back.
- Elbows bent at 90°, forearms horizontal. Shoulders should be relaxed, but not depressed.
- Thighs horizontal with a 90°–110° angle at the hip.
- Feet fully supported and flat on the floor. If this isn’t possible, then the feet should be fully supported by a footrest.
OFFICE SETUP

1 CHAIR
2 WORK SURFACE
3 INPUT DEVICES
4 MONITOR
5 ACCESSORIES
6 HABITS & EDUCATION
OFFICE SETUP

1 CHAIR
WHAT DOES A CHAIR NEED?

If your chair does not have the blue box features, it may be time to get a new chair.
CHAIR HEIGHT

While standing, adjust the height of the chair so the highest point of the seat is just **below your kneecap**

Feel Pressure in the Rear?  
**Raise Your Chair**

Feel Pressure in the Thighs?  
**Lower Your Chair**

**Even Weight Distribution is the Goal**
LUMBAR SUPPORT
When sitting, adjust the height of the backrest so the lumbar pad supports the natural curve of your lower back

Feel Contact on Lower Back

SEAT TILT
Sit either flat or slightly upwards (5°) to improve comfort

Seat Pan is Flat
SEAT DEPTH

When sitting, the seat pan should allow you to use the back support without the front of the seat pressing against the back of your knees.

Two Fingers Gap Space Between Seat Edge and Back of the Knee

If you cannot sit back in your chair with a 2 finger gap, it may be time to get a new chair.
The seat pan should be wide enough so it does not apply pressure to the side your thighs.

Conversely, the seat should be narrow enough to be able to reach the armrests when they are properly adjusted.

Shoulder Width ≈ Seat Width
Armrests should not prevent the chair from being drawn close to the desk, nor restrict natural movements.

Armrest $\approx$ slightly below elbow height

- Armrest Too High $\rightarrow$ Shoulder Pressure
- Armrest Too Low $\rightarrow$ Back & Neck Pressure
OFFICE SETUP

1. CHAIR
2. WORK SURFACE
Once chair is adjusted, ensure top of work surface is at elbow height.

Use belly button if elbow height cannot be determined.

- **Table Top ≈ Elbow Height**
- **Table is Too High** → Shoulders Raised & Wrist Pressure
- **Table is Too Low** → Back & Neck Pressure
If you cannot reach your elbow height, consider the following:

**Table below elbow:**
- Raise Surface
- Adjustable Table

**Table above elbow:**
- Foot Rest
- Lower Surface
- Adjustable Table
WORK SURFACE ORGANIZATION

Arrange Work Materials Based On Frequency to Reduce Reaching
OFFICE SETUP

1. CHAIR
2. WORK SURFACE
3. INPUT DEVICES
NEUTRAL WRIST POSTURE

Keep Wrists in Neutral Posture

Straight Wrist = Neutral Posture

Avoid Awkward Wrist Posture

Bent Wrist = Awkward Posture
Ergonomic keyboards benefits depend on the user and the type of work.

Ergonomic keyboards promote neutral wrist posture, but research **does not** provide conclusive evidence that they reduce the risk of injury.

**Place Keyboard Flat or Negative Tilt**
MOUSE PLACEMENT

Ensure mouse & keyboard are on the same work surface.

Move mouse from the shoulder, **not** the wrist.

Keep mouse as close as possible to reduce movement.
MOUSE SIZE

Find an appropriate mouse that fits your hand’s width and length

If mouse is too small:
Causes Over-Gripping

If mouse is too large:
Pinch Grip
# QUICK KEYS

Use the shortcuts to **reduce mouse use**

## BASIC FUNCTIONS

<table>
<thead>
<tr>
<th>YOU PRESS</th>
<th>IT DOES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+Esc</td>
<td>Activate Start Menu</td>
</tr>
<tr>
<td>Shift+F10</td>
<td>Right-click/context</td>
</tr>
<tr>
<td>Tab</td>
<td>Next field</td>
</tr>
<tr>
<td>Ctrl+Tab</td>
<td>Previous field</td>
</tr>
<tr>
<td>Ctrl+F4</td>
<td>Close sub-window</td>
</tr>
<tr>
<td>Alt+Tab</td>
<td>Next program</td>
</tr>
<tr>
<td>Alt+F4</td>
<td>Close program</td>
</tr>
</tbody>
</table>

## EDITING AND FORMATTING

<table>
<thead>
<tr>
<th>YOU PRESS</th>
<th>IT DOES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+B</td>
<td>Bold selected area</td>
</tr>
<tr>
<td>Ctrl+I</td>
<td>Italicize selected area</td>
</tr>
<tr>
<td>Ctrl+U</td>
<td>Underline selected area</td>
</tr>
<tr>
<td>Ctrl+Enter</td>
<td>New page</td>
</tr>
<tr>
<td>Ctrl+Z</td>
<td>Undo</td>
</tr>
<tr>
<td>Ctrl+A</td>
<td>Select all</td>
</tr>
</tbody>
</table>

## CLIPBOARD RELATED COMMANDS

<table>
<thead>
<tr>
<th>YOU PRESS</th>
<th>IT DOES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+X</td>
<td>Cut selected area</td>
</tr>
<tr>
<td>Ctrl+C</td>
<td>Copy selected area</td>
</tr>
<tr>
<td>Ctrl+V</td>
<td>Paste selected area</td>
</tr>
</tbody>
</table>
Mouse Tracking Speed

1. Click Start
2. Go to Control Panel
3. Click On Display Icons
4. Click On Mouse
5. Click On Pointer Options
6. Increase Pointer Speed & Enhance Pointer Precision
OFFICE SETUP

1. CHAIR
2. WORK SURFACE
3. INPUT DEVICES
4. MONITOR
MONITOR

Distance
- Arm Length Distance

Height
- Top of Monitor
- Below Eye Level

Location
- Directly in Front

Size
- Rectangular Displays
OFFICE SETUP

1. CHAIR
2. WORK SURFACE
3. INPUT DEVICES
4. MONITOR
5. ACCESSORIES
Windows

- Have the window facing the side of your computer
- Ensure windows have blinds or tint to block light
- Add task lamp if needed to diffuse direct light sources
GLARE

Choose monitors that have matte displays to reduce direct glare

Reposition monitors to reduce glare

Reduce screen contrast or add a privacy filter
WRIST RESTS

Avoid Resting on Hard Surfaces

Try to “Float” Over Working Surfaces

Wrist rests should be thinner than keyboard
DOCUMENT HOLDER

Documents positioned too far can require awkward head postures

Place between Keyboard and Monitor

Be Stable when loaded
PHONE

Avoid Phone Cradle

Consider a headset or speaker phone

Reduce Reaching

Keep Phone within Arm’s Reach
OFFICE SETUP

1. CHAIR
2. WORK SURFACE
3. INPUT DEVICES
4. MONITOR
5. ACCESSORIES
6. HABITS & EDUCATION
HABITS

Micro-breaks
Take 1-2 min break ever hour relieve fatigue

20-20-20 Rule
Take 20 sec to look at something 20 feet away and repeat every 20 min

Job Rotation
Every 2 hours change job tasks or input devices to reduce strain on the body
STRETCHES

1. 10-20 seconds, two times
2. 8-10 seconds, each side
3. 15-20 seconds
4. 3-5 seconds, three times
5. 10-12 seconds, each arm
6. 10 seconds
7. 10 seconds
8. 8-10 seconds, each side
9. 8-10 seconds, each side
10. 10-15 seconds, two times
11. Shake out hands, 8-10 seconds
Thank You

Any More Assistance? Please Take Risk Assessment