

ERGONOMIC GUIDELINES

To understand the most efficient way to set up a computer workstation, it is helpful to understand the concept of neutral body positioning. This is a comfortable working posture in which your joints are naturally aligned. Working with the body in a neutral position reduces stress and strain on the muscles, tendons, and skeletal systems and reduces your risk of developing a musculoskeletal disorder (MSD). The following are important considerations when attempting to maintain neutral body postures while working at the computer workstation:

Upright sitting posture. The user's torso and neck are approximately vertical and in-line, the thighs are approximately horizontal, and the lower legs are vertical.

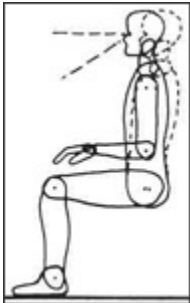


Figure 1.
Upright sitting posture



Figure 2.

The user's torso and neck are approximately vertical and in-line, the thighs are approximately horizontal, and the lower legs are vertical

ESTABLISHING A NEUTRAL BODY POSITION: (consider the following)

- **Hands, wrist and forearms** are straight, inline and roughly parallel to the floor.
- **Head** is level, or bent slightly forward, forward facing, and balanced. Generally it is in-line with the torso.
- **Shoulders** are relaxed and upper arms hang normally at the side of the body.
- **Elbows** stay in close to the body and are bent between 90 and 120 degrees.
- **Feet** are fully supported by the floor or a footrest may be used.
- **Back** is fully supported with appropriate lumbar support when sitting vertical or leaning back slightly.
- **Thighs and hips** are supported by a well-padded seat and generally parallel to the floor.

- **Knees** are about the same height as the hips with the feet slightly forward.
- In a **standing position** legs, torso, neck, and head are approximately in-line and vertical. The user may also elevate one foot on a rest while in this posture.
- In an **upright sitting posture** the torso and neck are approximately vertical and inline, the thighs are approximately horizontal, and the lower legs are vertical.

GENERAL COMPUTER STATION LAYOUT:

- All furniture and equipment not being used in immediate area should be removed from work area.
- Remove all superfluous personal belongings, boxes and office supplies from under desk.
- Make sure leg have sufficient space under desk to place feet firmly on the ground/stool.
- Take time to set up computer monitor station every time you are about to work at a station.

CHAIR:

- Adjust seat to a comfortable to neutral position at the beginning of each use of new station.
- Sit back in chair so back support is provided.
- Adjust the seat pan to allow 1 to 2 inches from the back of your legs to the edge of the seat.
- Thighs should be parallel to the floor.
- Do not work in one position for prolonged periods. Change position frequently.
- Break up activities that require long periods of sitting.
- Familiarize yourself with chair dynamics and adjustment options.
- Chair arms should be used only if they do not obstruct your sitting position or posture. Armrest should NOT be used while typing.
- Feet should be firmly planted on the floor or on a foot rest.

WORK SURFACE / COMPUTER STATION:

- Arrange workspace such that monitor, keyboard and mouse are directly in front of you.
- Remove/rearrange all superfluous patient items and medical supplies not being used from typing surface.
- Bring items being referenced closer eg. charts, notes.
- Attempt to position system in an angle that will minimize twisting of the neck.
- Wrist rest should only be used while resting, not typing.
- Ideally, keyboard and/or desk should be at the height of your arms, maintaining a 90 degree angle.

KEYBOARD AND MOUSE

- Learn short cuts, macros and/or quick keys to minimize mouse and keyboard strokes.
- Learn how to adjust speed of mouse under control panel.
- Keep mouse and keyboard at an appropriate distance to minimize reach.
- Move keyboard tray over to one side when doing intense 10-key or mouse clicks.

- Position your keyboard tray flat on desk or slanted away from you.
- Relax shoulders when keying. Keep elbows close to body, your wrist relaxed and straight and your forearms parallel to the floor.
- Keyboard and mouse should be adjacent from one another and at the same level.
- Keep fingers, wrist and forearm in straight line while using mouse.
- Use light touch when typing, don't bang on keys.
- Keep wrist in a straight position – not bent up or down.
- Keep elbows at a slightly open angle greater than 90 degrees.
- Do not use wrist rest or armrest while typing.
- Stay centered on the lettered part of the keyboard tray.
- Use elbow not wrist to move mouse.

MONITOR:

- Arrange workspace such that monitor, keyboard and mouse are directly in front of the computer monitor. See attached diagram.
- Top of computer monitor should be right at eye level or slightly below.
- Poor positioning of your monitor can cause poor positioning of body.
- Keep monitor face clean and dust free. Poor visibility can cause awkward body positioning.
- Monitor should only be an arms length away.
- Tilt the screen so that the base is slightly closer to you than the top. This will enable you to view entire screen more clearly.
- Follow 20/ 20/ 20 rule. During long periods of use take a 20 seconds break every 20 minutes to look at least 20 feet away from monitor.
- Increase visibility of icons and brightness via control panel.

FOOTREST:

- Keep feet on floor at all times. Do not cross or rest feet on chair base.
- Keep area under desk clear of obstructions and allow enough room for footrest, if one is being used.
- Always keep footrest centered with body and in line with monitor, keyboard and chair.

PAPER DOCUMENTS:

- Documents referenced should be close to the monitor.
- Remove all superfluous paperwork near monitor to have adequate work space.
- Center document holder should be right in front of monitor and aligned with keyboard to minimize neck movement.

ADMINISTRATIVE CONTROLS:

- Always follow your health care provider's instructions.
- Consult your doctor of any changes of your current condition.