

Ergonomics Sitting and Standing Postures

Good Working Positions

To understand the best 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 system 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:

- *Hands, wrists, and forearms* are straight, in-line and roughly parallel to the floor.
- *Head* is level, 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 if the desk height is not adjustable.
- *Back* is fully supported with appropriate lumbar support when sitting vertical or leaning back slightly.
- *Thighs and hips* are supported and generally parallel to the floor.
- *Knees* are about the same height as the hips with the *feet* slightly forward



Regardless of how good your working posture is, working in the same posture or sitting still for prolonged periods is not healthy. You should change your working position frequently throughout the day in the following ways:

- Make small adjustments to your chair or backrest.
- Stretch your fingers, hands, arms, and torso.
- Stand up and walk around for a few minutes periodically.
- Perform some of your tasks in standing: computing, reading, phone, meetings.

These four *reference postures* are examples of body posture changes that all provide neutral positioning for the body.

Upright Sitting

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.

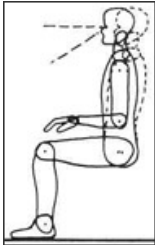


Figure 1. Uprightsitting posture



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.

Standing

Standing posture. The user's legs, torso, neck, and head are approximately in-line and vertical with feet slightly apart. The user may also elevate one foot on a rest while in this posture.

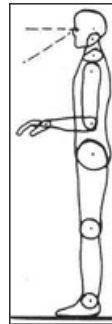


Figure 3. Standing posture



Figure 4. The user's legs, torso, neck, and head are approximately in-line and vertical with feet slightly apart.

Declined Sitting

Declined sitting posture. The user's thighs are inclined with the buttocks higher than the knee and the angle between the thighs and the torso is greater than 90 degrees. The torso is vertical or slightly reclined and the legs are vertical. This position should not inhibit the ability to easily reach the keyboard or view the monitor.

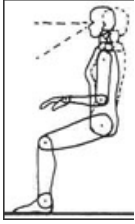


Figure 5. Declined sitting position



Figure 6. The user's thighs are inclined with the buttocks higher than the knee and the angle between the thighs and the torso is greater than 90 degrees. The torso is vertical or slightly reclined and the legs are vertical.

Reclined Sitting

Reclined sitting posture. The user's torso and neck are straight and recline between 105 and 120 degrees from the thighs.

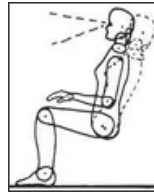


Figure 7. Reclined sitting posture



Figure 8. The user's torso and neck are straight and recline between 105 and 120 degrees from the thighs.