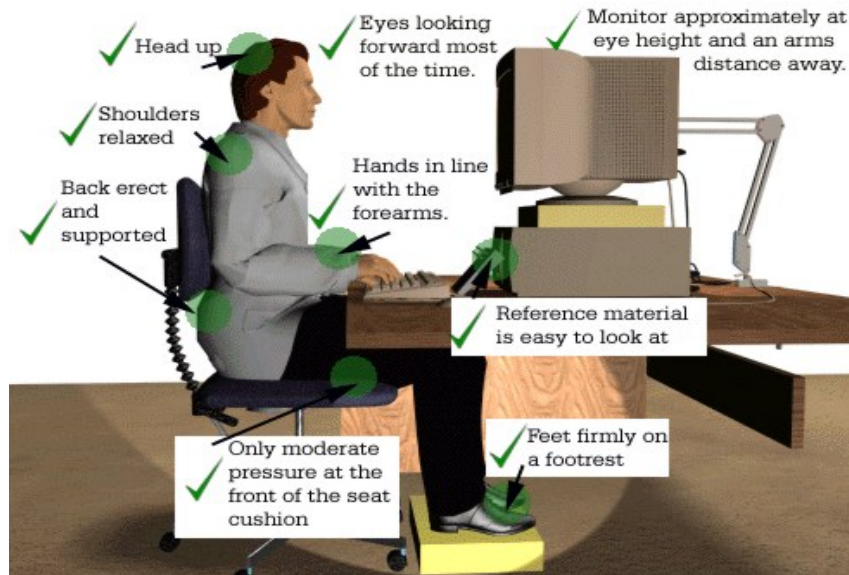


Proper Ergonomics for Home Work Stations

Sitting behind a desk in a home office or utilizing a laptop on the couch surprisingly can be exhausting for the body. Learning about the importance of ergonomics in your home office is essential to remaining comfortable and productive. Ergonomics is how the human body interacts with a work environment. Incorporating ergonomics into your home office will improve your productivity, make you more comfortable, and prevent stress and injury.

Proper Work Station Positioning



Improper Work Station Positioning



Seating

- Neutral body positioning
- Relaxed and forward
- Back straight and fully supported S-curve in spine
- Head upright
- Hips, knees, and elbows at approximately 90 degrees
- Arms fully supported
- Feet flat the floor



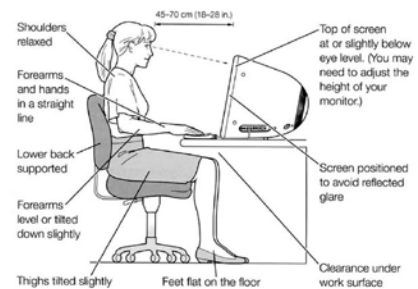
Work Surface

- Chair at a comfortable height to allow for neutral body positioning
- Knees and elbows bent at approximately 90 degrees
- Thighs parallel to the floor
- Feet flat on the floor or on a footrest
- Obstructions removed



Monitors

- Directly in front of you
- The top of the monitor should be at or slightly below eye level. (You may need to adjust the height of your monitor.)
- Arm's length away (24-30" approx.)
- Up to 10-degree backward tilt or flat
- You may need to increase text size for smaller monitors.



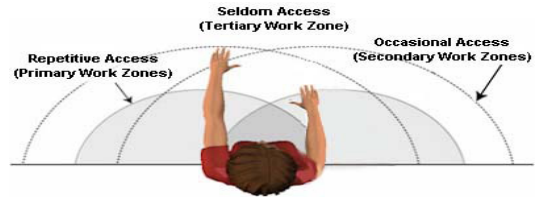
Keyboard and Mouse

- Directly in front of you
- Distance that allows your elbows to stay close to your body with your forearms parallel to the floor
- Elbows not extended forward or backward
- Hands not flexed up or down, or bent inward or outward
- Control mouse movement from the elbow.
- Your hands should move freely and be elevated **above** the wrist/palm rest while typing.
- When resting, the pad should contact the **heel or palm** of your hand, not your **wrist**.
- Some desks and computer equipment have hard, angled leading edges.



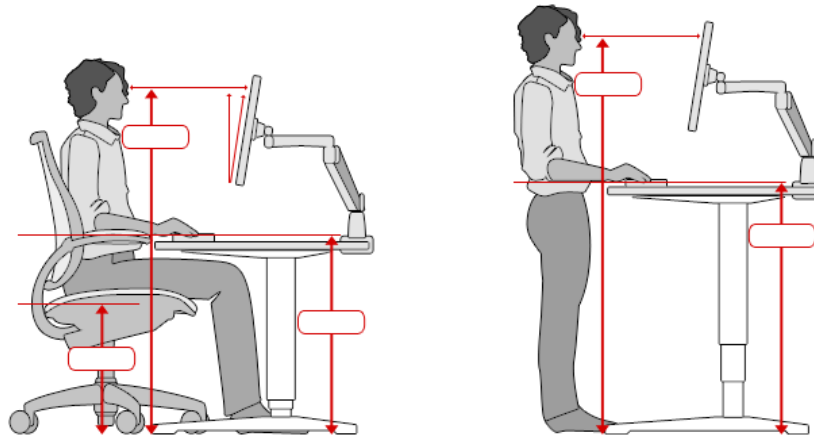
Accessories

- Depending on usage patterns, the location of frequently used items should remain within the primary work zone, such as keyboard, mouse and telephone. Other items, such as printers and calculators, should remain within the secondary work zone.
- Phone Use
 - Avoid the shoulder-rest device if possible.
 - Consider a phone headset instead.
 - Use a speaker phone or headset for long conversations.



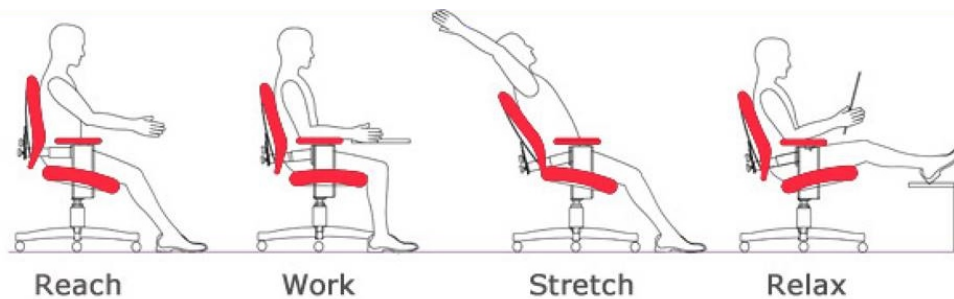
Sitting vs. Standing

- Regardless if working from a seated or standing position, work from a position that is at an appropriate height and distance from your workstation, as well as centered to the computer's components, in order to maintain proper body positioning and receive the appropriate support.
- A standing workstation must be able to support all computer components (monitors, keyboard, and mouse), so that they are at the proportional height. Depending on the floor type, an anti-fatigue mat may also be required.



Posture

Over time, poor posture and back pain may be caused by habits from everyday activities such as sitting in office chairs, looking at the computer, driving, standing for long periods of time or even sleeping. Poor posture can become second nature, causing or aggravating episodes of back pain. Fortunately, the main factors affecting posture are in our control with some simple changes.



Below are some tips to help improve your posture:

- **Distribute body weight evenly to the front, back, and sides of the feet while standing.** While sitting in an office chair, take advantage of the chair's features. Sit up straight and align the ears, shoulders and hips in one vertical line. Any single position, even a good one, will be tiring. Leaning forward with a straight back can alternate with sitting back, using the back support of the chair to ease the work of back muscles. Also be aware of and avoid unbalanced postures such as crossing legs unevenly while sitting, leaning to one side, hunching the shoulders forward or tilting the head.
- **Get up and move.** Take a break from your office chair every 30 minutes to stretch, stand or walk. As muscles tire, slouching, slumping, and other poor postures become more likely; this puts extra pressure on the neck and back.
- **Use exercise to help prevent injury and promote good posture.** Regular exercise such as walking, swimming, or bicycling will help the body stay aerobically conditioned, while specific strengthening exercises will help the muscles surrounding the back to stay strong. There are specific exercises that will help maintain good posture. In particular, a balance of trunk strength with back muscles about 30 percent stronger than abdominal muscles is essential to help support the upper body and maintain good posture.
- **Wear supportive footwear when standing.** Avoid regularly wearing high-heeled shoes, which can affect the body's center of gravity and change the alignment of the entire body, negatively affecting back support and posture. When you are standing for long periods of time, placing a rubber mat on the floor can help improve comfort.

Minimizing Eye Strain

Use Proper Lighting:

- Eliminate exterior light by closing drapes, shades, or blinds. Reduce interior lighting by using fewer light bulbs or fluorescent tubes, or use lower intensity bulbs and tubes.
- Also, if possible, position your computer screen so windows are to the side, instead of in front or behind it, to minimize glare from the sun.
- Many computer users find their eyes feel better if they can avoid working under overhead fluorescent lights. If possible, turn off the overhead fluorescent lights in your workspace and use floor lamps that provide indirect "soft white" LED lighting instead.

Adjust Your Computer Display Settings to Reduce Eye Strain and Fatigue:

- *Brightness:* Adjust the brightness of the display so it's approximately the same as the brightness of your surrounding workstation.
- *Text size and contrast:* Adjust the text size and contrast for comfort, especially when reading or composing long documents. Usually, black print on a white background is the best combination for comfort.
- *Color temperature:* This is a technical term used to describe the spectrum of visible light emitted by a color display. Blue light is short-wavelength visible light that is associated with more eye strain than longer wavelength hues, such as orange and red. Reducing the color temperature of your display lowers the amount of blue light emitted by a color display for better long-term viewing comfort.

Blink More Often:

- When staring at a screen, people blink less frequently. Blinking is very important when working at a computer as blinking moistens your eyes to prevent dryness and irritation. Tears coating the eye evaporate more rapidly during long non-blinking phases, which can cause dry eyes.

Exercise Your Eyes:

- Another cause of computer eye strain is focusing fatigue. To reduce your risk of tiring your eyes by constantly focusing on your screen, look away from your computer at least every 20 minutes and gaze at a distant object (approximately 20 feet away) for at least 20 seconds. Looking far away relaxes the focusing muscle inside the eye to reduce fatigue.
- You can also look far away at an object for 10-15 seconds, and then gaze at something up close for 10-15 seconds. Afterward, look back at the distant object. Do this 10 times. This exercise reduces the risk of your eyes' focusing ability to "lock up" after prolonged computer work.

Take Frequent Breaks:

- To reduce your risk of eye strain and neck, back and shoulder pain, take frequent screen breaks during your work day (at least one 10-minute break every hour). During these breaks, stand up, move about and stretch your arms, legs, back, neck and shoulders to reduce tension and muscle fatigue.