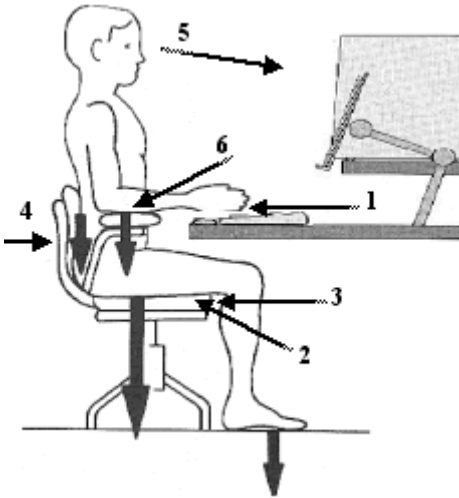


Sitting Ergonomics

Dr. Webb / Tri-State Health Care

Use of a computer while sitting - Here are some important guidelines to follow to help make sure that your computer work area is as comfortable as possible and causes the least amount of stress to your spine.



- 1. Elbow measure** - Begin by sitting comfortably as close as possible to your desk so that your upper arms are parallel to your spine. Rest your hands on your work surface. If your elbows are not at a 90-degree angle, move your chair either up or down.
- 2. Thigh measure** - Check that you can easily slide your fingers under your thigh at the leading edge of the chair. If it is too tight, you need to elevate your feet. If there is more than a finger width between your thigh and the chair, you need to raise the desk/work surface so that you can raise your chair.
- 3. Calf Measure** - With your buttocks up against the chair back, try to pass your clenched fist between the back of your calf and the front of your chair. If you can't do this easily, the chair is too deep. You will need to adjust the backrest forward or insert a lumbar support.
- 4. Lower-back support** - Your buttocks should be pressed against the back of your chair, and there should be a cushion that causes your lower back to arch slightly so that you don't slump forward as you tire. This support is essential to minimize the load (strain) on your back. Never slump or slouch in your chair, as this places extra stress on your spine and lumbar disc.
- 5. Eye Level** - Close your eyes while sitting comfortably with your head facing forward. Slowly open your eyes. Your gaze should be aimed at the center of your computer screen. If your computer screen is higher or lower than your gaze, you need to either raise or lower the screen.
- 6. Armrest** - Adjust the armrest of your chair so that it just slightly lifts your arms at the shoulders. Use of an armrest allows you to take some of the strain off your neck and shoulders, and it should make you less likely to slouch forward in your chair.

Sitting - Sitting for prolonged periods of time can be a major cause of back pain. Sitting is a static posture that can cause increased stress in the back, neck, arms and legs and can add a tremendous amount of pressure to the back muscles and spinal discs. Additionally, sitting in a slouched-over or slouched down position can overstretch the spinal ligaments and strain the spinal disc.

Always sit all the way back on any seat. If needed, provide support for your lower or mid back with a pillow.

While seated, as with standing, you can contract the muscles of the leg, exercising the muscles and helping the blood flow by rising up on the toes as you bring your heels up off the floor, pause at the top and then slowly lower your heels back to the floor. If your back is tired or painful while seated, try rotating your hips backwards so that you press the small of your back against the chair back, hold this position for a count of four, and repeat as needed. You will notice that you unconsciously tighten your stomach muscles as you attempt to press your back against the chair which helps to strengthen the abdominal muscles which support your low back.

Use of the telephone while sitting - Many times it may seem necessary to cradle the telephone between your head and shoulder as you write or type. A shoulder rest which can be attached to the telephone receiver or a telephone headset should be used to prevent strain of the lateral neck muscles.