



## Ergonomics for Prolonged Sitting

Sitting for prolonged periods of time can be a major cause of back and neck pain. **Sitting 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 discs. Besides being uncomfortable, over time poor sitting posture and workplace ergonomics can damage spinal structures and contribute to recurrent episodes of back pain.

Here are some important guidelines to help make sure that your 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 prop your feet up with an adjustable footrest. If there is more than a finger width between your thigh and the chair, you need to raise the desk 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 that easily, the chair is too deep. You will need to adjust the backrest forward, insert a lumbar support or get a new chair.

### 4. Back support – ideally should go up to shoulder level

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 that places extra stress on your spine and lumbar discs. **Sitting and twisting, such as reaching to pick up a poorly placed phone, puts the most pressure on the discs.**

### 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 it.

### 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.

Finally, **no matter how comfortable you are at your desk - prolonged, static posture is not good for your back.**

Try to remember to **stand, stretch and walk for at least a minute or two every half hour**. Moving about and stretching on a regular basis throughout the day will help keep your joints, ligaments, muscles and tendons loose, which in turn will help you feel more comfortable, more relaxed and more productive.

