

## **Ergonomic Tips: Computer Use by Senior Citizens**

### **Positioning the Keyboard**

It is important to position the computer keyboard so the hands can type in a neutral and flat posture. There are several ways to achieve this posture. The easiest way is to place the keyboard on a height-adjustable, negative slope keyboard tray that attaches to the underside of a desk or a table. Several manufacturers produce this type of product. A second way of working at a keyboard is to position it on a surface that is at elbow-height when you are seated.

Remember to type with the hands straight rather than bent up or down. This approach can work for short periods of time. However, as the forearms tire out, the wrists tend to fall to the surface, which causes the hands to extend upward on the keyboard keys. This can cause wrist problems.

If you are working with a laptop computer, place the laptop on your lap, sit back in the chair, and type with your hands in a neutral position on the keyboard. If you only have a single hand or restricted mobility in one hand, consider using a one-handed computer keyboard.

### **Positioning the Mouse**

When using a computer mouse, position the mouse on a surface that is close to your body and near elbow-height or slightly above. If you use a keyboard platform, make sure it is equipped with a mouse platform.

The best designed mouse platform is one that can be moved slightly above the keyboard keys. As you hold the mouse in position it will position your hand into the most neutral posture.

When you keep the mouse close to your body, you don't have to reach forward to use the mouse or bend your arm out to the side of your body. Awkward arm positions are associated with neck, shoulder, elbow, and wrist pain.

If you have difficulty using a mouse, consider other input devices. For example, if your hands shake consider using a track ball. A track ball is less sensitive to hand tremor than a computer mouse.

If you frequently use your software's zoom capabilities to see what is displayed on the computer screen, consider using a multi-touch pad such as an iGesture pad. A multi-touch pad enables the zoom control to be more easily executed.

### **Positioning the Computer Screen**

Position the computer screen directly in front of you while you are working. Sit

back in your chair, hold your arms out in front of you with your hands outstretched. Your fingers should just about touch the center of the computer screen.

In this position the computer screen is at the correct height, at the right distance from your eyes, and centered on your body. Try to use a LCD screen rather than a CRT screen to avoid screen flickering.

If you use a laptop computer, position the screen at a comfortable viewing height and angle. Make sure that your computer screen is free from any reflected light in the workspace. Position your computer screen away from an unshaded window. If the position of your computer cannot be changed, cover the window with a blind or drapes to alleviate screen glare from reflected light.

If you cannot comfortably read the computer screen when correctly positioned approximately an arm's distance from your eyes, use the computer software's magnification (zoom) feature to enlarge the screen display. Your computer's operating system default can be changed to enable fonts to be displayed larger. An alternative is a screen magnifier that attaches to the top of the computer's monitor. This is better than sitting too close to the computer screen. Finally, choose screen display colors that are easy for you to see and read.

### **Positioning the Documents**

Position the documents close to the computer screen. Use a document holder that it is height- and position-adjustable. Place the document holder between the keyboard and the computer screen, or adjacent to one side of the computer screen. Never place documents that you plan to refer to while typing flat on the work surface.

### **Room Lighting**

The room lighting should be relatively dim to help you to see the computer screen without any glare. However, you will need a supplemental task light to illuminate paper documents to enable you to read them without straining your eyes.

### **Chair**

Choose a chair with a comfortable seat and back that you can sit on for a long period of time. Make sure the chair allows you to easily sit under the keyboard tray or desk and that the chair arms (if any) do not interfere with your ability to sit or to adjust your workspace.

The chair should support the body including the lower back. If the chair does not offer good back support, consider using a low back cushion or rolled up towel.

If the chair seat becomes uncomfortable (e.g. 'hard') consider purchasing a gel chair seat cushion.

**Feet**

Place your feet firmly on the floor or on some other support surface when seated at the computer. Never work with your feet dangling.

**Rest Breaks**

Working at a computer can be very fatiguing. Try to take short breaks after 20-50 minutes of work. A short two-minute break is refreshing. During each break stand up, stretch, move around to get the blood circulating, and look to the distance (preferably through a window) to rest your eyes.

**Courtesy:** <http://www.spineuniverse.com/displayarticle.php/article1496.html>

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