

ERGONOMICS: COMPUTER USE TIPS

As we use computers for longer hours every day, especially under stressful work conditions, using improper work habits and improper posture we may notice increasing aches and pains in some parts of our bodies.

Long hours on the computer can be rewarding, even fun, but they can also lead to aches and pains in your neck, shoulders, arms and hands. If you ignore these aches and continue working with improper work habits you may develop painful and disabling injuries such as tendonitis, carpal tunnel syndrome or other repetitive strain injuries.

These musculoskeletal problems can happen in anyone who uses a computer for long hours: computer programmers, engineers, data entry workers, telephone operators, customer service workers, and even graduate students. The problems can range from minor muscle aches that last less than a few hours to persistent tendon problems that can last for years. The more severe problems can lead people to leave a job they like or stop doing sports activities they enjoy, like tennis or bicycle riding. So we should do what we can to prevent the minor aches of work from progressing to disabling conditions.

The most common body areas to watch for are the hands, wrists, elbows, shoulders and neck. The problems may vary from aches to pain, burning, numbness or tingling. These symptoms may be felt during typing or mouse use or at other times when no work is being done, including during the night when the symptoms might wake you up.

Most often these problems are not serious and will go away with a little attention to the way you work. First, the more hours you work, the greater your risk. In my patients I frequently hear that their problem started after they worked on a project with a tight deadline. For example, they worked for 10 to 12 hours a day for two weeks, and the ache that started in the elbow just never goes away. It takes deliberate effort to use your computer properly. The purpose of this guide is to help you set up your computer and develop good work habits so that you can be productive and comfortable when using the computer.

How to adjust your workstation, Posture and Work Habits

Point 1. When working on the computer for long hours, pay attention to tension, discomfort or pain you feel and take immediate action to relieve it.

Point 2. Make sure you stand up and walk away from your computer at least every hour. Use a timer or alarm if necessary. Put your neck its range of motion and stretch your shoulder and upper back muscles. See the exercises below.

Point 3. Adjust you chair so your feet and back are firmly supported by the floor and seat back. You should lean back in your chair a little. Arm rests can be a nuisance; they can press on the elbow or prevent you from pulling your chair forward.

Point 4. Position the monitor so the top is about at the level of your eyes and it is straight in front of you. It should be about an arm length away. If it is difficult to see the small characters check the glare, monitor resolution, or your eyes. You may need glasses (bifocals can be a problem). You should not have to lean forward to see your work. If you are frequently reading from books or papers when using the computer, use a sturdy document holder set next to the monitor.

Point 5. The keyboard should usually be at a low height, near the height of your elbows and the mouse or trackball should be right next to the keyboard. They can be higher if you have a padded surface on which to rest your forearms. Having to continuously reach for the keyboard or mouse may lead to shoulder pain. If you have to reach for the keyboard or mouse (for example with a high desk surface), rest your arms in the middle area of the forearms. Generally the keyboard should be flat so that the wrists are relatively straight.

Point 6. Try different keyboards, mice and trackballs to find the one that works best for you. Some people find using the mouse uncomfortable. They can try using the mouse with their other hand or try switching to a trackball. People with hand and wrist pain may want to try the Microsoft Natural Elite keyboard; it appears to reduce hand pain.

Finally, the stresses of work can make aches and pains worse. Ideally, you should try to set up your work so you can control the pace and flow of your work, so that you can take a break when you need to and not feel like you have to work through your coffee break or lunch breaks. I want to reemphasize the need to get away from the computer every hour and do the exercises.

1. Stand or sit erect with chin tucked in close to chest. Turn head slowly to right, trying to bring your chin over your right shoulder. Hold for three seconds; rotate head back to center position. Pause. Repeat in opposite direction. Repeat entire sequence 5 times.

2. Push chin downward, trying to touch it to your chest, without causing too much strain. Pause. Slowly lift head backward as far as possible without straining. Pause. Repeat 5 times.



3. Bend your head slowly to the right, trying to bring your right ear to your right shoulder. Pause. Return slowly to center position. Pause. Repeat in opposite direction. Repeat sequence 5 times.

4. Roll your head clockwise in as wide a circle as possible (up, to the right, down, to the left) for three complete circles. Do the same in the opposite direction (counterclockwise). Pause. Repeat sequence 3 times.



5. Shoulder shrug: Stand erect, arms held loosely at sides. Breathe deeply as you lift your shoulders first as high and then as far back as they will move. Breathe out as you lower your shoulders to the starting position and relax. Repeat 20 times, at least twice a day. Build up this routine to 50 times, twice a day.



6. Upper back stretch: Sit erect. Place hands on shoulders. Try to cross your elbows by bringing your right arm to the left and left arm to the right, until you feel the stretch across your upper back. Return to starting position, drop your hands and relax. Repeat 10 times.



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