[IMAGE]

Escaping the Ergonomic Danger Zone

The Right Position Makes All the Difference

By Dr. David Ryan

More than 90 percent of all office workers use a personal computer, but whether they use it correctly is debatable. By "correctly," I'm not referring to whether they know how to download files, format documents, troubleshoot error messages or prevent e-mail viruses from attacking. I'm talking about having your computer monitor, keyboard, chair and workspace organized in a way that promotes productive, pain-free work and discourages repetitive-stress and ergonomic-related injuries. In 1997, work-related musculoskeletal disorders had reached 275,000 cases annually.

In 2009, that number is expected to exceed 14 million. Musculoskeletal disorders related to computer use include neck pain, tension headaches, lower back pain, and carpal tunnel syndrome, just to name a few. The affect on the economy is devastating, accounting for an estimated $20 billion in direct costs and more than $100 billion in indirect costs every year.

Your Keyboard Height

Keyboard icon - Copyright â Stock Photo / Register Mark When you are in a seated position and sitting up straight, the position of the keyboard should be at the height of your elbows or below. Most people will sit with a keyboard height approximately level with their abdomen. This forces the shoulders to remain in an elevated or shrugged position, which activates a large muscle in your back - the trapezius muscle - and can result in a great deal of pain if that position is held too long. The trapezius muscle extends from the back of your skull to an area just above your lower back and runs laterally from shoulder to shoulder. It is literally the cross that we all bear, particularly when it's stressed or injured.

An easy test: Have someone stand behind you as you are seated. Let them poke your neck and back muscles with their fingertips, and hold pressure in any area that is sensitive on your neck and across the top of your shoulders. While they are still applying pressure, raise your hands and reach out, simulating typing on a keyboard. You are likely to feel an immediate increase in pain at all the points their fingertips are pressing on. Now try the same test, but bend only at your elbows; don't reach your arms out or raise them. Chances

are you are going to feel significantly less pain by keeping your arms down and bending only at the elbow.

Raising the height of your chair is the easy fix for this problem. Other situations may require a more aggressive approach, such as installation of a swing arm that allows for adjustable positioning of the keyboard. Keep in mind that the computer mouse should be at the same appropriate height of the keyboard.

Your Monitor Height

Monitor icon - Copyright â Stock Photo / Register Mark Another common problem is the height of your monitor. The top of your monitor should be at the level of your eyebrows or top of your head. Some individuals have to place their monitor on a stack of large books to maintain the appropriate height. If you are having trouble seeing your monitor and maintaining a forward position of your head, it is likely that you will end up suffering the consequences of poor postural position. Looking down or straining your head forward to see the monitor will likely aggravate your neck and back muscles.

Your Chair Height and Sitting Position

Chair icon - Copyright â Stock Photo / Register Mark Attempt to maintain flat-footed placement on the floor to help with overall balance while sitting. Your objective is to maintain proper posture while sitting by allowing as much contact between your body and the chair. It is important to try to sit back in the chair as far as possible and to maintain contact with your shoulders against the back of the chair. The backs of your upper legs and your buttocks should completely contact the base of the chair.

It will also help a great deal if you learn to sit while holding in your lower abdomen for extended periods of time. This helps support the soft tissue of the lower back, which is actually under more strain in a seated position than when you are standing.

Also try to change positions from time to time; depending on your employer and type of job, you may even be able to stand up and continue working for 4-5 minutes every so often. This allows for proper circulation Some employers have offered standing workstations as an alternative to sitting for long periods of time. Research has shown that employees who work at a standing workstation for a minimum of 60 minutes per day have 70 percent less musculoskeletal complaints. (Believe it or not, there are even <u>workstations that come complete with a treadmill</u>, so employees can walk while they are working!)

Small Changes, Big Benefits

Thumb up - Copyright â Stock Photo / Register Mark It may seem like an oversimplification, but learning to sit up straight, suck your stomach and keep your keyboard at the level of your elbows and below are easy ways to minimize your risk of chronic and repetitive-stress injuries at the workplace. That's good news to you and your employer. In this high-tech world of computers, it might be worth your time to consider these common-sense approaches, instead of buying a $150 ergonomic keyboard.

Many companies have developed an ergonomic program designed to help reduce the factors associated with musculoskeletal fatigue and injury. Research has shown that workers who are compliant with these guidelines have increased productivity, efficiency, and morale. Companies have also noticed a decrease in reported injuries illnesses, workers' compensation costs, sick days and employee turnover. The bottom line is that neither you nor your company can afford to sit back (no pun intended) while you practice poor workspace habits and increase your risk for injury. And remember that these ergonomic safety tips also apply to the home, where most people now have computers as well.

Carpal Tunnel Syndrome: Not Just for Computer Users Anymore

Man using computer - Copyright â Stock Photo / Register Mark Carpal tunnel syndrome (CTS) is a common condition associated with repetitive tasks such as computer keyboard use. But what if you don't work on a computer much and are still experiencing wrist and hand pain symptomatic of CTS? Recent research suggests a more reliable source of the problem, albeit also related to positioning: improper *sleep* position. Most people who sleep in the fetal position (curled up on one side) sleep with their wrists in a fully flexed position (bent backwards under their chin, resting next to their chest). This can cause pressure that ultimately leads to CTS. The most common orthopedic test for CTS is called Phalen's test. Flex both wrists fully and place the back of your hands firmly against each other; an increase of pain in the wrist and/or hand is considered a positive test. Talk to your doctor for more information.

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