

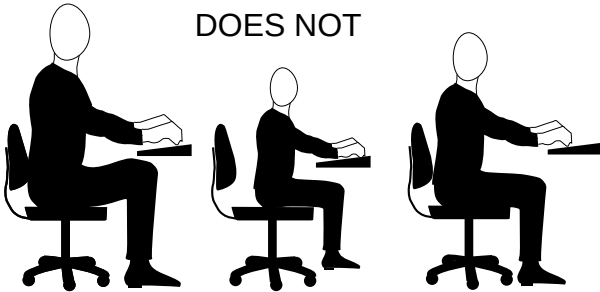
Ergonomic experts generally agree on three principles to minimize the possibility of injury or discomfort while working at your workstation:

1. Learn about and use appropriate postures.
2. Take frequent rest and exercise breaks.
3. Learn how to adjust your workstation equipment.

ONE SIZE

DOES NOT

FIT ALL!



Overview

The work performed in the modern workstation revolves around the use of a computer. The computer serves as a typewriter, file cabinet, calculator, copier, and library. But, like any piece of equipment, a workstation and computer must be used properly to avoid injury.

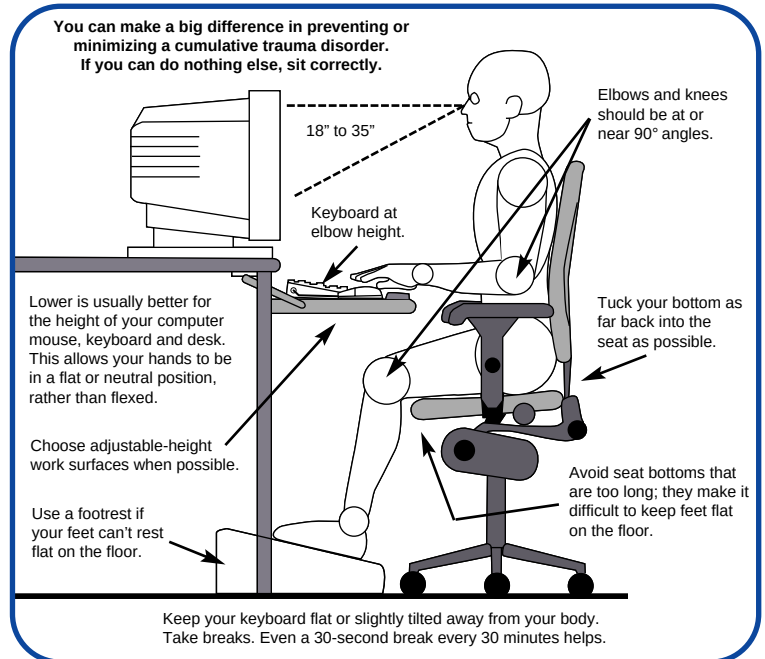
“Repetitive Strain Injury” is a broad term used to describe muscle strain, tendonitis, carpal tunnel syndrome, and other conditions caused or aggravated by repetitive motion and poor posture.

Numerous activities in the modern workstation involve repeated motions (typing, mousing, phone use, etc.). Performing these tasks while in good posture reduces the strain on the body. You need to be concerned and informed about optimal posture and work habits, but you do not need to be alarmed.



How's Your Workstation?

Most people in the modern office environment spend the day seated at a desk or computer. Your posture in this seated position is critical to the comfort level of your workstation. By following the checks below, you can determine if your seated position while working can be improved.



Head and Back

Sit up straight (or as straight as you can). The human head weighs 8 pounds (or so we're told). If your head was a sculpture, you would need a pedestal to display it. Your spine is your pedestal. If you lean forward, toward your screen, your head is no longer supported by your spine. Therefore, your neck and upper back must do the support work and can become fatigued.



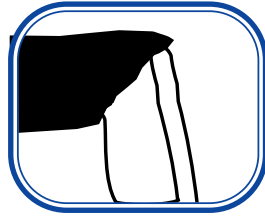
Feet

Keep them flat on the floor or on a comfortable foot rest. Your old piano teacher would be proud of you! Adjust your chair height to achieve a comfortable placement of your feet.



Knees

Your knees should be bent at approximately 90° angles. First make sure your feet are comfortable resting on the floor (or on a footrest). Then decide if your knees are higher, lower, or on the same level as your hips. Knees should be at (or near) the same level as your hips. This helps achieve even pressure on your thighs, while seated.



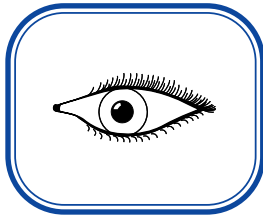
Elbows

Your elbows should remain at approximately 90° angles while using your computer. This helps insure you are typing and mousing in or near your lap. If your arm(s) are extended out straight, you are probably too far from your key board or mouse.



Eyes

When seated, are they level with the top of your screen? They should be. If your eyes are level with the middle or bottom of your screen, that means you must tilt your head back to see the top of your screen. This may cause neck strain. Either lower your monitor or raise your chair height to achieve proper "eye-height".



Foot Room

Clear the floor under your workstation so that there is adequate room for you to move your feet and fully extend your legs.



Telephone Trouble

Does your work require a good deal of telephone use while working on the computer or writing? Do you clutch the phone between your shoulder and ear? This can cause neck muscle strain in some people. Consider a headset telephone, speaker phone, or other hands-free device.

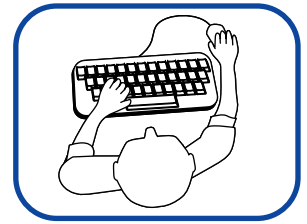


Mouse Position

Can you move your mouse position close to your keyboard? This will reduce arm and shoulder strain.



Comfortable Posture



Problem Posture

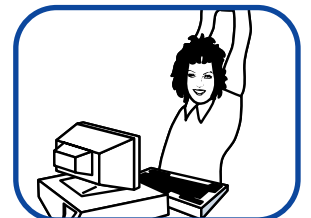
Vision

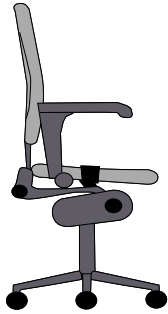
Check your prescription. Some eye strain and fatigue can be the result of an incorrect prescription. Bi-focal and tri-focal wearers may ask their optician about the helpfulness of glasses designed for computer use. **DON'T FORGET TO BLINK!** Concentrating on your screen can slow your "blink-rate"! Blinking frequently helps keep eyes clean and lubricated.



Rest Breaks

Even the most comfortable position cannot prevent all muscular stress and fatigue. Take a break and move around. Other productive tasks performed throughout the day will provide "micro-breaks" from computer work.

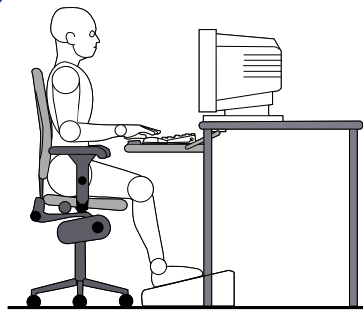




CHAIRS

Chairs should provide:

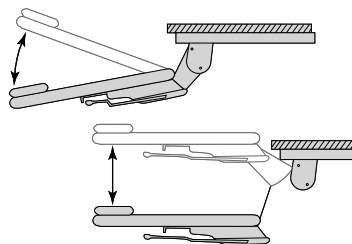
- Adjustable height
- Five legs (wheels) for stability
- Fabric that breathes
- Lower back support (adjustability preferred)
- Preferred adjustable arm rests



WORKSTATIONS

Workstations should provide:

- Appropriate work height
- Adequate leg room
- Comfortable placement of keyboard and mouse



KEYBOARD
SUPPORTS

Keyboard supports should provide:

- Adjustable height
- Room to mouse next to keyboard
- Angle adjustment

Working (Out) At Your Desk

Stretching should be done slowly, without bouncing. There's no need to strain. Stretch to where you feel a slight, easy stretch. Hold this feeling for 5 to 20 seconds. As you hold this stretch, the feeling of tension should diminish. If it doesn't, just ease off slightly into a more comfortable stretch. The easy stretch should reduce tension and ready the tissues for the developmental stretch.

After holding the easy stretch, you can move a fraction of an inch farther into the stretch until you feel mild tension again. Hold it for 10 to 15 seconds. This feeling of stretch tension should also slightly diminish. If the tension increases or becomes painful, you are overstretching. Ease off a bit to a comfortable stretch. This is the developmental stretch which safely increases flexibility.

Don't hold any stretch tensions that are uncomfortable. The key to stretching is to relax while you concentrate on the area being stretched. Your breathing should be slow, deep and rhythmical. Don't worry about how far you can stretch, and don't compare yourself to others.

The above is adapted from "Computer & Desk Stretches," by Bob and Jean Anderson.

Sample Exercises

Following are some simple massages and stretching exercises that can be performed at your desk. Regardless of which you choose, two important reminders are necessary:

Don't do anything outside the normal range of motion, and don't do anything that hurts.

Be sure you're not in an awkward posture as you perform any stretch or exercise.

The goals of your exercise should be:

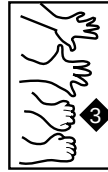
- Flexibility, within the normal range of motion.
- Strength.
- Cardiovascular conditioning.
- Balance and alignment.
- Safe venting of energy and tension.

If you are under a doctor's care, consult your physician before doing any of these exercise.

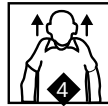


Using gentle pressure, massage the inside and outside of each hand. Massage the spaces between fingers and massage each finger, working toward the nail.

Extend arm in front of you, then massage from elbow to wrist by gently pressing on the muscle.



Keeping wrists straight, spread your fingers as far apart as you can, hold for 10 seconds. Relax, then bend your fingers at the knuckles and hold for 10 seconds. Repeat the first stretch.



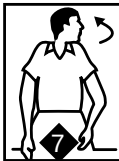
normal position. Do this two to three times.



Interlace fingers behind head, keeping elbows straight out to side with upper body in aligned position. Pull your shoulder blades toward each other to stretch shoulders and upper back. Hold for 10 seconds then relax. Repeat several times.



Balance head over spine, then tilt head slowly to left side. Hold stretch for 10 to 20 seconds, then tilt head slowly to right side and hold for 10 to 20 seconds. Repeat on each side.



Sitting in stable, aligned position, turn your chin toward your left shoulder. Hold stretch for 10 to 20 seconds, then turn your chin toward your right shoulder and hold for 10 to 20 seconds. Repeat on each side.



Gently tilt your head forward to stretch the back of the neck. Hold for 5 to 10 seconds. Relax, then repeat three to five times. Be careful not to stretch to the point of pain.

Hold your left arm just above the elbow, with the right hand. Gently pull elbow toward right shoulder as you look over your left shoulder. Hold for 15 to 20 seconds. Repeat for your right arm.



Stretch your arms straight out to the side and straight in front of you. Feel the stretch in the upper arms and shoulders. Then reach straight up to stretch your arms and upper sides of rib cage. Hold each for 10 to 20 seconds.

Raise your arm overhead, then bend it behind your head. Hold elbow with opposite hand, then gently pull elbow behind head in easy stretch. Hold for 30 seconds. Do not overstretch. Repeat for other side.



Hold on to your leg just below the knee. Gently pull bent leg toward your chest. To stretch side of upper leg, gently pull bent leg toward the opposite shoulder. Hold each for 30 seconds



Interlace your fingers behind your back, then slowly turn elbows inward while straightening your arms. Hold 5 to 15 seconds. This is good to perform when you find yourself slumping forward.



Performance from Experience

For more information about Telcordia Technologies, contact your local account executive or call:

1 800 521-2673 (U.S. and Canada) or
+1 732 699-5800 (in all other countries).

Or visit us on the internet:
www.telcordia.com

Copyright © 1999 Telcordia Technologies, Inc.
All rights reserved.