



Many people don't realize that a poorly designed computer workstation and/or bad work habits can result in serious health problems. Common problems associated with poor design or habits include discomfort in the back, neck and shoulders, hands and wrists, as well as headaches and eyestrain. These are all symptoms to be aware of while working.

Below are some areas in the office environment where ergonomic problems are commonly found. The rest of this pamphlet provides in depth explanations of each area and how you can improve them if necessary.

1. Make sure you have an adjustable chair and that it is adjusted to fit you.
2. Make sure your commonly used office items (monitor, documents, keyboard, mouse, and phone) are positioned close to you.

3. Make sure you have adequate lighting and minimal glare.
4. Take short and frequent rest breaks, and do gentle stretches to keep your muscles limber.
5. Move your eyes frequently and focus them away from the screen.
6. Ask for assistance and/or medical advice if necessary.

1. Chairs

Maintaining good posture while using a computer is your primary defense against fatigue and stress. This doesn't mean that maintaining the *same* posture throughout the day is necessary. In fact it is good to vary your sitting postures. It is also a good idea to get out of your chair frequently and move around. Even if it's for a minute at a time, it's helpful.

While sitting, it is important to be comfortable. This is a personal issue, and everyone is different, which you should recognize when considering an office chair. In addition, a chair should have sufficient adjustability to allow for various postures during the day. Chairs should have adjustability in the seat height and depth, backrest height and seat tilt. Armrests are not necessary, but if they are desired they should be adjustable in height and width. The website provides more information on specific seating adjustments.

2. Frequently Used Items

A. Monitors

Your monitor should sit directly in front of you, and in line with the keyboard. A twisted working posture may lead to discomfort. Also, the top of the screen should be at or a little below eye level, as it is natural to look slightly downward. When determining monitor distance,

place it at arm's length, and then adjust according to your comfort level. The monitor should also be tilted back, so the bottom of the screen is slightly closer to you than the top. For bifocal wearers, read the Vision section.

If the job requires privacy while working, instead of rotating your monitor to one side, consider a privacy screen, which will allow you to keep the monitor directly in line with you and the keyboard.

Finally, keep your computer screen clean by wiping it very lightly when needed with a paper towel or special cleaning solution.

B. Documents

If the job requires working from paper documents while at a computer, it's crucial to keep them as close as possible to the computer screen, and at about the same angle. This will eliminate a twisted working posture, and also put the document at an easier to read angle.

For frequent users of documents, consider getting a document holder. There are ones available that place the document to the side of the monitor, between the monitor and keyboard, and even some that can hold books. Consider your personal preference and job needs when looking for one.

C. Keyboards

The position of your hands and wrists on the keyboard is important, especially with the prevalence of such disorders as tendonitis and carpal tunnel syndrome. The keyboard should be at or slightly below elbow height, and parallel with your forearms. If it is possible to slope the keyboard, make it a slightly downward slope (the front of the keyboard is higher than the back). This may sound unconventional, but the

idea is to keep your wrists straight. In other words, if the keyboard is below elbow height, a downward sloping keyboard allows this. If your keyboard has feet on the back that prop the keyboard up, make sure to lower those feet, in order to keep your wrists straight.

Adjustable keyboard trays can be helpful in this regard. The newer trays on the market are easier to adjust, and have a slim design, which means there plenty of room under the tray for your legs. For someone who is constantly typing, this may be the way to go.

If you type frequently and do not touch-type, consider taking a typing class. You can alleviate the annoyance of having to shift your eyes from the keyboard to the monitor, which, if done repetitively, may lead to discomfort. Also, you will become more productive.

D. Mouse

The mouse should be positioned as close to the keyboard as possible, and at about the same height, as they are normally used together. You want to avoid reaching to get to the mouse. It is also advisable to avoid resting your forearm or wrists on a sharp edge or hard surface as this constant, direct pressure may lead to discomfort.

Most newer adjustable keyboard trays also come with a place for the mouse. Another option is to get a mouse bridge, which places the mouse directly over the number pad on the keyboard. For those that use the number pad, it usually can slide off to the side when necessary.

There are other alternatives to using a traditional mouse, such as trackballs and touchpads. Trackballs are stationary devices,

so they require less room. They are normally larger than a mouse and may accommodate the hand better. Touchpads, which are also stationary, are essentially pressure sensitive screens that you place your finger on. As you glide your finger across the pad, the mouse moves across the screen.

E. Phone Use

If the phone is a commonly used item at your work area, keep it within comfortable arms reach, so it's easy to get to. If you have the tendency to cradle the phone, consider getting a hands free headset, as cradling the phone between your head and shoulder strains the muscles in the neck and shoulder. A headset will also allow you to work with both hands while conversing on the phone.

*It is important that other commonly used items such as staplers and calculators be located close, to avoid extreme reaches across the desk.

3. Lighting

Your work area should have moderate, indirect lighting. Lights in front of you are hard on the eyes while lights behind you produce reflected glare. To minimize glare, position your monitor so it's perpendicular to or below the light source, use window shades, or tape a piece of cardboard across the top of the monitor to act as a visor. Glare screens can reduce glare if needed.

4. Vision

If you wear glasses or contact lenses, keep them clean. For bifocal wearers, it is important to be aware of your monitor height. Consider placing it at a lower height than normal to avoid tilting your head back, which may lead to neck

discomfort. It might be beneficial to consider a pair of computer glasses.

Good tips to avoid eyestrain: Blink often, and take frequent rest pauses. Close your eyes for a minute, refocus by looking away from your monitor at something in the distance, and roll your eyes up and down, left to right.

5. Rest Breaks

Short, frequent breaks are more beneficial than longer, more infrequent ones. Sitting for more than two to three hours without moving can put stress on the body. Breaks can be as simple as standing up and walking around your desk three times. You should also break up your sitting period by walking to the water fountain, printer, etc.

6. Exercises

Here are some tension relieving exercises that you can do throughout the day:

- Tightly clench your hand into a fist and release, fanning out the fingers. Do 3 times.
- With elbows straight, bend your wrists back as far as they will go, hold for 3 seconds then extend wrists as far as they will go. Do 5 times.
- Stand up straight, place your hands on your hips and bend backwards at the waist, gently. Do 5 times
- Touch the fingertips of your hands together just behind the top of your head without letting your hands touch your head, move your elbows in a backward direction, hold 5 seconds then relax. Do 3 times.
- Tuck your chin in while keeping your eyes level; hold 3 seconds and then relax. Do 5 times.
- Roll your head in circles, stretching more toward each shoulder. Do 5 times.