

CORRECT COMPUTER ERGONOMICS

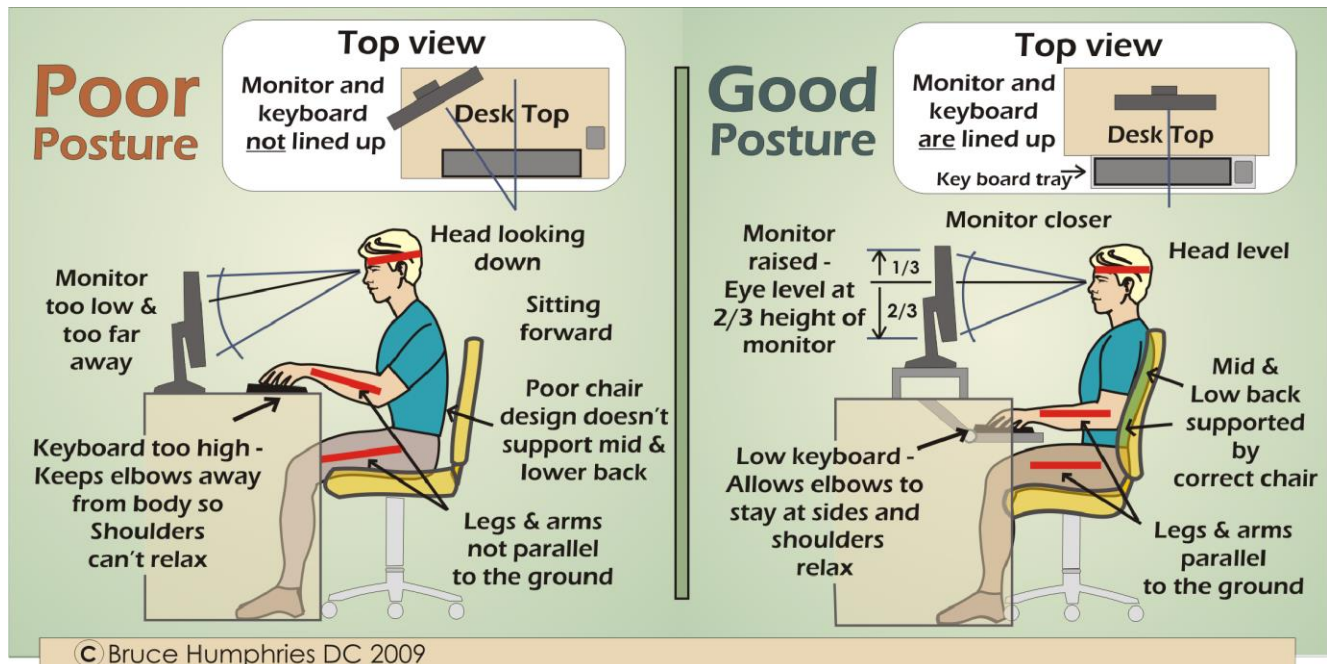
How long can you sit at your computer without hurting? Thirty minutes? Sixty minutes? Sitting for prolonged periods with poor body positioning can be very fatiguing. Over time, the fatigued area becomes strained and pain sets in.

With a correctly configured workstation, you should be able to sit for hours without hurting your back, neck, arms, or wrists. Below are the recommendations I give my patients to help them achieve correct ergonomics or body positioning.

STEP 1 – OFFICE CHAIR

Choosing a well-designed office chair is an essential step in achieving good computer ergonomics. A good chair will preserve and support the natural curves of your back. In the neck and low back the spine curves in, and in the middle back the spine curves out. To perform well, the contour of the chair's back should match the curves of your back. (See drawing ↘) This support keeps you from slouching when you sit.

A taller seat back is better than a shorter one. The lower portion of the seat back should support your lower back's inward curve, and the upper portion should support your middle back's outward curve. Sit all the way back in your chair so the seat back can do its job of supporting the curves of your spine.



A good chair must be well padded. I've seen trendy “mesh” chairs in office-supply stores but have never found one that was satisfactory. Mesh chairs are too stiff and hard. Nothing beats old-fashioned foam padding in a chair. The seat cushion should fit your body (not too long or too short) and be well padded.

Your legs should be parallel to the ground; and those with short legs may need a footstool. A chair that reclines offers a good change of position that can help prevent fatigue and still provides the support of a well-contoured seat back.

Once you have a properly supporting chair, you can turn your attention to the desktop.

STEP 2 – DESKTOP ARRANGEMENT

One of the most common computer workstation errors is poor monitor placement. A correctly positioned monitor will help you to avoid neck and shoulder pain. The ergonomic principle here is to keep your head and neck in a neutral position: This is accomplished by looking straight ahead. You don't want to look up and down, and you don't want to look left and right.

You keep your head from looking up and down by keeping your head and eyes level. This is accomplished by raising the computer monitor so that your eyes hit the screen two-thirds of the way up. A level head keeps your neck muscles from having to constantly contract to hold your head in a poor position.

You keep your head from looking left and right by placing the monitor directly in back of the keyboard. This avoids the common practice of placing the monitor off to the side. This side positioning causes your neck to stay constantly turned leading to stressed muscles in your neck and shoulders.

Next, the keyboard must be low, almost in your lap. This allows your shoulders to stay close to your side and remain relaxed. Placing the keyboard too high forces you to constantly contract the muscles of your shoulders so your forearms can reach the keyboard. If your chair has arms, you can position the keyboard a little higher so long as the chair's arms support your forearms. But if your chair does not have arms, position the keyboard close to your lap so your forearms can be positioned down by your side.

Your wrists should be relaxed and straight or slightly flexed (curved down). The mouse should be right next to the keyboard. And finally, be sure to take regular breaks.

LAPTOPS

Laptops are an ergonomic nightmare because the keyboard is right next to the monitor. But the solution is simple: purchase an extra keyboard to separate the monitor from the keyboard and position each as described above.

ERGONOMIC DEVICES

There are many ergonomic devices available, but you needn't spend a lot of money on them. A monitor stand not only raises the monitor, but it has the added benefit of freeing up space under the monitor. However, you can save this expense and just use a couple of thick phone books.

You can purchase a keyboard tray to lower the keyboard to your lap, or you can simply place the keyboard on your lap. Placing the keyboard in your lap works well when you recline the chair back.

The office chair is the most expensive ergonomic device. But there are good ones that are affordable. Shop around. Go to a few office-supply stores and sit in many chairs until you find the one that fits you best. Pay particular attention to how the contoured seat back supports the curves of your back.

If you do an Internet search for “computer ergonomics,” you will find a lot of products that can help you achieve an ideal computer work station. I suggest visiting a local office-supply store to purchase chairs, as it is important to make sure the chair is a good fit for you. (You will find good ergonomics products at office-supply stores as well.)

SUMMARY

Sitting incorrectly with poor body position at a computer can be very fatiguing. Good ergonomics require a well-designed office chair that properly supports the back, proper monitor height, a low keyboard, and good shoulder placement to keep shoulders and forearms relaxed. These ergonomic recommendations can lead to hours of comfortable work.

One last thought. These chair suggestions are useful for any seating situation. If you have back pain, sit in a comfortable office chair at home. Don't sit in hard kitchen chairs or slouch on a couch.

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