

Ergonomic solutions help prevent pain

Over time, an awkward posture, repetitive motion, or forceful exertions can wear on the body, causing a musculoskeletal injury. Ergonomic principles can help prevent problems, as they fit the task to the worker rather than making a person's body conform to the job.

Ergonomic design may lower the stress placed on a person's joints, tendons, ligaments, and nerves. Adjustments to tools, tasks, and workstations can help reduce a person's chance for injury.



Fatigue, discomfort, and pain are signs that damage may be occurring. The wrist, back, neck, elbow, knee, or shoulder could all be at risk for problems, depending on which part of the body is under strain.

Be aware of how you're working and watch for signs that problems may be developing. Whenever possible, work in a way that puts the least amount of stress on your body and consider whether there's an ergonomic solution that may make your job more comfortable.

Sit properly to reduce chances of injury

It doesn't seem like simply sitting at a desk would put a person at danger for injury, but working in an awkward position day after day may increase your risk of musculoskeletal problems.

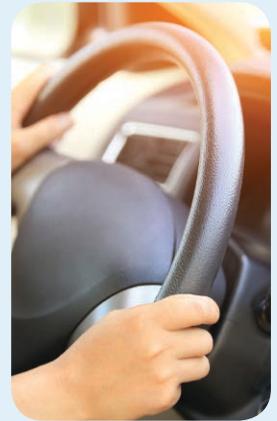
While there is no one-size-fits all "correct" posture, there are basic principles that will help you maintain a safe, comfortable posture at your desk and computer. Check to see that your workstation has adequate room for the keyboard and mouse. In addition, be sure that your:

- Monitor is at or just below eye level,
- Head and neck are balanced and in line with your torso,
- Shoulders are relaxed,
- Elbows are close to the body and are supported,
- Lower back is supported,
- Wrists and hands are in line with your forearms,
- Feet are flat on the floor or supported by footrest if desk height is not adjustable.

Seven tips for comfort behind the wheel

Vehicles get us where we want to go, but driving can take a toll on your body. Poor driving posture can bring on back pain, a stiff neck, and foot cramps.

To reduce the risk of musculoskeletal injury and help alleviate pain:



1. Remove items such as a wallet or keys from your pockets. Pressure from these items can reduce circulation or press on soft tissues or nerves.
2. Modify the lumbar support so there are no gaps or pressure points in the back support area. If the vehicle does not have an adjustable lumbar support, a lumbar pillow or rolled up towel can be used.
3. Tilt the seat back slightly, so it is at a 100 to 110-degree angle. Don't tilt it too far back – this can cause a driver to bend the head and neck forward, and could bring on muscle fatigue and neck or shoulder pain.
4. Check the seat cushion length by sliding your bottom as close to the seat back as possible. When in this position, you should be able to place two to three fingers between the back of your knee and the front of the seat.
5. Move the seat forward until you can push the gas and brake pedals with your entire foot, not just your toes.
6. Adjust mirrors after you get the seat positioned so you don't have to crane your neck to see what's behind you.
7. When on a longer trip, alternate driving longer and shorter distances. Take rest breaks hourly, or more often if necessary.

Keep your wrists healthy

The repetitive motion of typing may cause discomfort or injury over time. When typing is a significant part of a person's job it can bring on carpal tunnel syndrome, which can cause pain, weakness, or numbness in the hand and wrist.

An ergonomic check of your work environment and posture can help reduce your risk for injury. Your keyboard should be at a height that allows your elbows to be bent about 90 degrees and stay close to your sides. If you experience hand, arm, or neck discomfort, ask your employer if you can try a different style of keyboard, such as a split, curved, or rotated design.

When typing or using your mouse, slightly raise your forearms so your wrists are in a neutral position and your arms and hands can move freely. If you use a wrist pad, rest the palm or heel of your hand on the support, rather than your wrist. This helps keep your wrists in a neutral, almost straight, position during brief rests from typing.

Adjusting the tilt of your keyboard may also help. You may find it more comfortable if it's flat or tilted slightly down at the top. Try different tilt angles to see what works for you.

Your doctor or physical therapist can give you information about exercises for building flexibility and strength in your hand, wrist, and arm.



Take a break with 'four 20s'

For a worker in an office setting, an important part of staying healthy is to incorporate movement into the workday. Ergonomics consultant Andrew Wood suggests doing this with "the four 20s." To put this into practice:

1. Every 20 minutes,
2. Stand up for 20 seconds,
3. Look 20 feet away,
4. Blink 20 times.

"Standing up gets you in a weight bearing position, to get blood flowing," says Wood, who works with Ferguson Risk Management, headquartered in Augusta, Georgia. "It increases your metabolic rate."

Looking 20 feet away and blinking provide some exercise for the eye.

"When you're looking into a computer screen, your blinking slows down and your eyes tend to fatigue," he said. "Your eyes aren't getting the lubrication they need from the tear ducts. You have to think to blink."

If you can't manage to stay on the 20-minute schedule, try to move every 30 minutes to an hour. The mini-break will likely energize you, and help keep you moving through the day.

... or try these mini-stretches

If you'd like to try some other activities during a brief break, try these stretches:

Hand: Separate your fingers and stretch for 10 seconds. Then bend fingers at the knuckles and hold for 10 seconds.

Wrist: Place the palms of your hands together and move hands downward, keeping elbows up and even, until you feel a mild stretch. Hold for 5 to 8 seconds.

Chin tuck: Facing straight ahead, lower your chin to your chest. Hold for 15 to 30 seconds, and return to the starting position.

Neck: Slowly lower your head to one side. Keep that shoulder down. Hold for five seconds. Switch sides.

Head turn: Turn your head to the side, keeping your shoulders straight. Hold for 15 to 30 seconds. Slowly face forward. Repeat on the other side.

Chest: Place your hands behind your head and squeeze shoulder blades together. Bring elbows back. Hold for 15 to 30 seconds before returning to the starting position.



By the numbers

Musculoskeletal injuries:

- Keep workers away from their jobs for around **11 days**.
- Accounted for a **third** of all injuries and illnesses among U.S. workers in 2013.



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