



November

Ergonomics at Work

Ergonomics is the study of how your body interacts with your environment when you perform a task or activity. Ergonomics often involves arranging your environment—including equipment, tools, lighting, and how you do a task—to fit you and the activity you are doing. Office ergonomics focuses on arranging your work environment to fit your needs while you do your job.

When your workstation is set up properly, you may be less likely to have problems such as headaches or eyestrain, possibly reduce neck and back pain, and perhaps prevent conditions such as carpal tunnel syndrome that can be related to repetitive activities. Whether or not your workstation is causing physical problems, a workstation that is set up properly can increase your productivity and quality of work life.

Most job-related injuries are caused by falls, repetitive movements, awkward postures, reaching, bending over, lifting heavy objects, applying pressure or force, or working with vibrating tools. Office ergonomics can help you be more comfortable at work while reducing stress and injury caused by awkward positions and repetitive tasks.

Computer Monitors and Cubicle Workstations

Office ergonomics focuses on your workstation arrangement—the placement of equipment such as your desk, computer monitor, chair, computer keyboard, mouse and telephone. Use the following tips to ensure a comfortable working environment:

- Position the monitor directly in front of you to avoid turning your neck. It should be placed at an arm's length from you.
- Tilt the top of the monitor back 10 or 20 degrees.
- The top of the viewing screen should be at eye level when you are sitting in an upright position. If you're a bifocal wearer, it may need to be slightly lower.
- Avoid direct lighting to prevent glare on the monitor.

Adjusting your chair properly can also relieve strain on your back. Sitting for long periods of time can put pressure on your back, as well as your arms, legs and feet. Use these tips for increased comfort:

- Don't stay in one position for extended periods of time—alternate between sitting and standing.
- Adjust the height of your chair so that your feet rest flat on the floor. Use a footrest, if needed.
- Adjust height and/or width of armrests so you are able to rest your arms at your sides and relax your shoulders while typing. Don't use armrests to slouch.

For many computer users, ergonomic problems occur in the forearm, wrist and hand. The following adjustments should be made to your workstation to avoid pain or injury:

- Adjust your keyboard height to allow your shoulders to relax and arms to rest at your sides.
- Your mouse should be placed adjacent to your keyboard and at the same height.
- Don't rest your hand on your mouse when you're not using it.

- Your desktop should be organized to allow easy access to frequently used objects.
- Use indirect lighting or shielding lighting, when possible, to reduce glare. Use a glare screen, if necessary.

Industrial Settings and Shop Ergonomics

Lifting is strenuous and requires proper training and technique. If a load is too heavy to lift alone, ask for help and have one person coach the lift. This way, you lift and lower at the same time. If a load is above your shoulders, use a step stool until the load is at least chest level. Pull the load close to your body and lift. To avoid back strain, follow these five steps when lifting an object:

- Get as close to the load as possible, almost as if you are hugging the object.
- Maintain your curves. Keep yourself in an upright position.
- Tighten your stomach muscles, but be sure not to hold your breath.
- Lift with your strongest muscles—your legs.
- Pivot with your feet, not your back.

Just as an athlete prepares for their sport, you should prepare before work to help prevent injuries. Stretching slowly can make your muscles more flexible. Spending just 10 minutes per day on a few exercises will help you to avoid back and other joint pain and injury.

Vibrating hand tools or work pieces may contribute to workplace injury. Vibration-induced numbness, reduction of manual dexterity and possible whitening of the fingertips can occur. In addition to always following use and safety instructions for all power tools, use the following tips to avoid injury:

- Select power tools with anti-vibration properties, if possible.
- Use handle coatings that suppress vibrations or vibration attenuation gloves.
- Keep power tools balanced and lubricated.
- Maintain straight wrists.
- Use tools with compressible gripping surfaces, rather than precision finger grips.
- Avoid sharp edges and pinch points.
- Wear gloves that fit.

For more information on ergonomics at work, visit the National Institutes of Health Division of Occupational Health and Safety at http://dohs.ors.od.nih.gov/ergonomics_home.htm. Click on the links to find information on “Ergonomics at Work” for computers, laboratories, industrial and shops and patient care, plus exercises and stretches for the eyes, musculoskeletal system, warm-ups and back strengthening. Ask your manager if ergonomic assessments are offered at your worksite for your specific work station to help you work safely and comfortably.

To learn more about the prevention and treatment of back pain, Highmark members can check out the online program, HealthMedia® Care™ for Your Back:

1. Go to www.highmark.com and select your service region.
2. Choose the “Member” tab and complete the log in process.
3. If you do not have a username and password, select “Register Now” and follow the instructions.
4. Click on the “Your Health” tab. Select “Improve Your Health” and “Take Care of Your Back.”



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