



Computer Workstations: An Ergonomic Guide

Companies rely on technology for daily operations. Today, more than half of employed adults in the United States use a computer on the job. To create an appropriate environment for using this equipment, it's important that both employers and computer operators learn to recognize and control potential ergonomic hazards. Computer-related discomfort and injury can be minimized by following some basic steps.

Employers

It's important for employers to take responsibility for purchasing and correctly installing task-appropriate equipment. These factors, paired with general and task-specific ergonomics training, can help improve the comfort and productivity of staff. Some critical components of a computer operator's workstation include:

- **Monitor:**

The monitor should be placed directly in front of the user at a preferred viewing distance of 18-24 inches. The top of the screen should be positioned no higher than the user's eyes. The screen should have the capability to swivel horizontally and elevate vertically to allow the user to select a comfortable viewing angle.

- **Mouse/keyboard:**

The keyboard should also be positioned directly in front of the user. The mouse should be placed at the user's side allowing the arms to remain close to the body, maintaining a straight line between hand and forearm. A height-adjustable keyboard/mouse tray system is ideal for properly organizing components.

- **Chair:**

Chairs should be height-adjustable, especially in work areas that are shared by a number of users. When seated, the user should be able to rest the soles of his feet on the floor or footrest. The back of the knees should be slightly higher than the seat of the chair to allow proper blood circulation to legs and feet. Armrests should also be adjustable to fit under work surfaces and allow for forearm support.

- **Lighting:**

Adequate lighting is a necessity. A combination of diffused overhead light and operator-adjustable task/desk lighting works best. Workstations should be orientated so light sources do not reflect on the computer screen and are not in the user's viewing field. Blinds or drapes should be available to block light from windows. Screen glare filters may also be considered.

Computer Operators

Many employees are not aware of the ergonomic risk factors faced on the job. The following are warning signs of potentially harmful working conditions:

- **Eyestrain and headaches:**

The computer screen may be too bright, not bright enough or positioned incorrectly. The glare or reflection on the monitor may be unknowingly distracting. It may also be time for new glasses or contacts.



- **Sore back:**

Slouching or inadequate chair support might be the cause. The strain may be eased by placing a rolled up towel in the small of the back.

- **Sore hands, wrists, arms and shoulders:**

Most likely caused by sitting improperly. Raise or lower the keyboard and make sure arms and wrists are supported.

- **Numbness in legs and feet:**

Blood circulation may be restricted. Try using a footrest or a chair with a downward-curving front edge.

For additional information:

Occupational Safety & Health Administration (OSHA),
<http://www.osha.gov/SLTC/computerworkstation/>

National Safety Council-Ergonomics Issues Page,
<http://www.nsc.org/issues/ergotop.htm>

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