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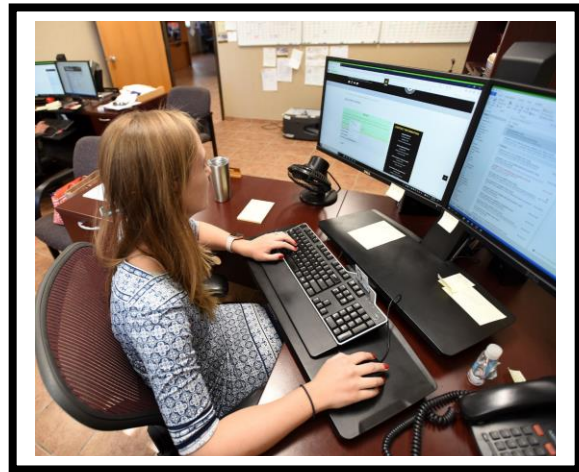
## COMPUTER WORKSTATIONS

Approximately 75% of adults in the United States own a desktop or laptop computer. Health problems associated with lengthy computer use are still prevalent. Those workers who use computers sporadically and intermittently throughout the workday are generally not affected by computer use. However, those workers who use computers continuously, from 6 to 8 hours during the workday, can experience computer-related ailments and discomforts.

### Health Problems Associated With Computer Use.

The symptoms most frequently associated with computer use are muscular, cognitive, or visual fatigue.

- Muscular fatigue is characterized by—
  - Pain,
  - Stiffness, and
  - Physical discomfort.
- Cognitive fatigue is characterized by—
  - Tiredness,
  - Loss of concentration,
  - Irritability, and
  - Dizziness.
- Visual fatigue is characterized by—
  - Eye discomfort due to prolonged, fixed focus,
  - Eye irritation,
  - Headache,
  - Abnormal after-image, and
  - Blurred and/or double vision.



Source: U.S. Army photo by Eric Pilgrim. Cleared for public release

Whether computer workers are experiencing one or a combination of these problems, the results are the same—a loss in proficiency and productivity, and the occurrence of work-related musculoskeletal disorder, particularly because of muscular fatigue.

### Assessing the Components of a Computer Workstation.

The components of a computer workstation are separate units but should be considered an interactive system. When you modify your computer workstation, you may find that a change in one component affects others.

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**The Workstation.** Proper workstation design provides a computer operator with neutral postures at an appropriate distance from the keyboard, source document, and screen, while also giving the operator enough space to perform a number of tasks efficiently. Optimal workstation design is complicated by differences in anatomy and work habits among operators. Workstation adjustability is the key to minimizing or eliminating the amount of discomfort caused by prolonged computer use.

**The Chair.** The benefits of a well-designed workstation can be offset if coupled with a poorly designed and uncomfortable chair. Therefore, the chair should not only adjust to the size and comfort of each worker, but should also adapt to each person's specific duties.

Computer workstation chairs should meet the following basic requirements:

- Adjustable seat height.
- Five-point base with casters, as appropriate, depending on the floor surface.
- Rotate 360°.
- Adjustable backrest that includes a lumbar (lower back) support.
- Adjustable armrests that can be moved horizontally and vertically.
- Allow for a forward and reclining posture.
- Rounded, waterfall front edge of the seat surface.
- Easy to adjust from the seated position.