



Safety Scene

Preventing "Uh-Oh" in the Office, Part 2: Office Ergonomics for Your Component Manufacturing Plant

by Molly E. Butz

er-go-nom-ics

noun, Design factors, as for the workplace, intended to maximize productivity by minimizing operator fatigue and discomfort.

One of the most commonly used "machines" in a component manufacturing office is the computer. Many resources, including OSHA, refer to computers as Video Display Terminals or VDTs. The standard VDT consists of a display screen, a keyboard and a central processing unit (CPU). Even laptop computers have each of these items neatly packaged into one compact, mobile piece.

Unfortunately, as the use of VDTs in the workplace has increased, so has the number of reported adverse health effects that can be traced back to their use. Some of the most frequent complaints include excessive fatigue, eye strain and irritation, blurred vision, headaches, stress, and neck, back, arm and muscle pain. Equipment, workstations, office environment and job design (including task variation, work breaks and working hours) are often the factors that cause these symptoms to occur. The upside is that many or all of these concerns can be controlled with proper office and workstation configuration. Let's explore the various small changes that can be made to make any office a comfortable, low-hazard place to work.

There is no single "correct" workstation arrangement that will fit everyone, but even small changes in posture, component placement, or work environment can provide big relief!

Visual Problems

Improper lighting, glare from the screen, poor screen position or copy material that is difficult to read often result in problems including eye strain and blurred vision. Simple adjustments to the physical and environmental setting in which the VDT is being used can correct these difficulties. According to OSHA, "workstations and lighting can and should be arranged to avoid direct and reflected glare anywhere in the field of sight, from the display screen or surrounding areas." In addition, light should be directed in such a way that it does not shine in the operator's eyes but is adequate enough for the operator to see the screen and the copy material without straining. It is also recommended that the VDT operator look away from the screen and out the window or across the room occasionally to "change the focus" and give the muscles in the eye a chance to relax.

Fatigue & Muscle Pain

Using a VDT often requires sitting in the same position with minimal movements for long periods of time. This can result in muscle fatigue, muscle pain and even injury. VDT operators are also prone to musculoskeletal disorders including carpal tunnel syndrome and tendonitis. Short work breaks along with varying the tasks performed during the work day can help alleviate these conditions and symptoms. Mini-breaks should include standing up, stretching at your desk and/or moving around to give the muscles time to rest and relax.

Workstation Design

Every person's body is different, from height and weight to arm length. Providing workstations with numerous adjustable features will allow each individual to choose the settings that work best for his or her body. Ensuring that each workstation is

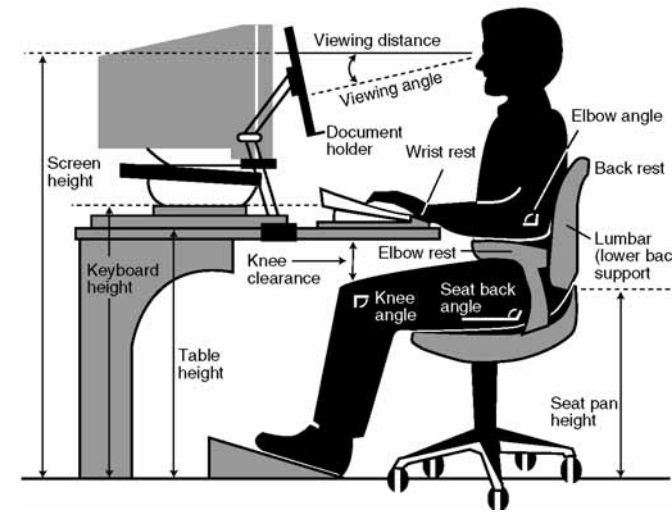


Figure 1. Guidelines for proper workstation design.

properly configured for the individual using it will decrease discomfort. When comfort is achieved, productivity will increase. The following list and graphic above provide some guidelines for proper workstation design:

- Ensure that the operator has a comfortable sitting position that is sufficiently flexible to reach, use, and observe the display screen, keyboard, and document.
- Provide posture support for the back, arms, legs, and feet as well as adjustable display screens and keyboards.
- Ensure that VDT tables or desks are vertically adjustable to allow for operator adjustment of the screen and keyboard.
- Ensure proper chair height and support to the lower region of the back.
- Ensure that document holders are used to allow the operator to position and view material without straining the eyes or neck, shoulder, and back muscles.

For more information on office ergonomics and appropriate workstation conditions, consult OSHA's "Working Safely with Video Display Terminals" or the Computer Workstations etool. (Visit **Support Docs** at www.sbcmag.info for links to these resources.) And, in the meantime, have each employee consider an ergonomic overhaul of their office space. (Download a "Video Display Terminal Checklist" or a "Purchasing Guide Checklist" from the **Support Docs** section today to analyze existing workstations or evaluate new purchases before they're made!) There is no single "correct" workstation arrangement that will fit everyone, but even small changes in posture, component placement, or work environment can provide big relief! **SBC**

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