



## **Chapter 9**

# **VDT Health Hazards: A Guide for End Users and Managers**

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### **INTRODUCTION**

Managers must strive for a healthy and productive working environment for end users. Eliminating or reducing lost work days and improving worker productivity in turn relates to the organization's profitability. VDT related health issues are important to end users, managers, and the organization as a whole.

End user computing is becoming commonplace in most businesses. In 1993 more than forty-five percent of the U.S. population used computers at work according to the U.S. Department of Labor (1997). The proliferation of end user computing creates a host of management issues. One such issue involves the potential health hazards associated with video display terminal (VDT) use. Both managers and end users must address this issue if a healthy and productive work environment is to exist.

Government bodies have been addressing the VDT ergonomics issue. Legislation has been created or is in the process of being created to protect VDT end users. VDT related ergonomics should be proactively approached by management.

In fact, some companies have ergonomics plans in place that specifically include the use of VDTs. One such company is Sun in Mountain View, California. Sun has reduced its average repetitive strain injury (RSI) related

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disability claim from a range of \$45,000 to \$55,000 to an average of \$3500. They address not only equipment issues but also behavioral changes like taking frequent breaks. (Garner, 1997) The good news is that many recommendations, such as this, are relatively simple to implement into any organization.

This article outlines major health issues (e.g., vision problems, musculoskeletal disorders, and radiation effects on pregnancy), as evidenced by the literature and medical research, associated with VDT use. It provides practical suggestions for both end users and managers to help eliminate or reduce the potential negative health effects of VDT use.

## **MAJOR VDT RELATED HEALTH ISSUES**

### **Vision Problems**

Vision problems related to VDT use have raised concerns for both end users and managers for some time. How extensive is the problem? “A survey of optometrists indicated that 10 million eye examinations are given annually in this country, primarily because of vision problems related to VDT use” (Anshel, 1997, p. 17). In addition, seventy-five to ninety percent of all VDT users have visual symptoms according to a number of investigators (Anshel, 1997).

The term computer vision syndrome (CVS) has emerged. CVS is defined by the American Optometric Association “as that ‘complex of eye and vision problems related to near work which are experienced during or related to computer use’” (Anshel, 1997, p. 17).

The symptoms included in CVS are “eyestrain, headaches, blurred vision (distance, near, or both) dry and irritated eyes, slowed refocusing, neck ache, backache, sensitivity to light and double vision” (Anshel, 1997, p. 17). Most of these symptoms have been a cause for concern for some time. But the development of a specific ailment, i.e., CVS, has solidified the concern.

What causes CVS? A variety of factors include an individual’s visual problems, poor workplace conditions, and incorrect work habits (Anshel, 1997). An individual’s visual problems, like astigmatism, are clearly medical concerns beyond the present scope. However, workplace conditions and work habits are directly germane to VDT use in the office environment and are appropriate to this discussion.

The problem of glare produced by traditional office lighting on VDT screens is well known. This lighting is suited to white paper work and not computer screens. The point-of-view has changed for the user. Instead of looking down (on the desk surface), one looks directly ahead at the screen. (Bachner, 1997) This change in work environment must be addressed and modifications made to accommodate the end user.

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