



## Using Computers Without Hurting Yourself: Ergonomics Training Resources

*Chuck Whitlock, Project Leader*

**M**uch of the work that Forest Service employees perform daily involves using computers in an office environment. Some Forest Service employees are beginning to experience cumulative trauma disorders (CTD's), such as carpal tunnel syndrome and tendinitis. These disorders are examples of work-related musculoskeletal disorders (WMSD's).



awareness of ergonomics can solve many problems. This Tech Tip will provide information on sources of training and workstation evaluation checklists that can help employees, supervisors, and managers become aware of ergonomics and how to correct ergonomic problems in their workplace.

The issue of WSMD's is so important that the Department of Labor's Occupational Safety and Health Administration (OSHA) has published draft standards to reduce the risk of musculoskeletal injuries to employees.

Work-related musculoskeletal disorders account for 34% of all lost workday injuries and illnesses, according to the Bureau of Labor Statistics.

Each year, WMSD's account for more than \$15 to \$20 billion in workers' compensation costs nationally.

Carpal tunnel syndrome, one type of WMSD, leads on the average to more days away from work than any other workplace injury.

Workers with cases of severe injury can face permanent disability that prevents them from returning to their jobs, or from handling simple everyday tasks.

One aspect of OSHA's proposed draft standards is training. Knowledge and training can prevent many of these types of injuries from happening. Ergonomic improvements to the workplace don't necessarily have to be expensive or complicated. Training and an increased

Let's take a few minutes to discuss ergonomics. Ergonomics is the knowledge of human abilities, human limitations, and other characteristics relevant to design. Ergonomics, as used in the workplace, seeks to apply this knowledge to the design of tools, machines, systems, tasks, jobs, and environments for safe, comfortable, and effective human use. Another definition would be fitting the job to the worker to prevent occupational injuries or illnesses and to reduce fatigue, error, or unsafe practices.

Work-related musculoskeletal disorders are preventable. Any work accident can indicate an



ergonomic problem. Warning signals of ergonomic problems include:

- Apparent trends in accidents and injuries
- Incidence of cumulative trauma disorders
- Employee complaints
- Manual materials handling and repetitive-motion tasks
- Improperly designed workstations
- Employee-generated changes in the workplace.

This Tech Tip is intended to provide field units with sources of training programs, checklists, and publications to identify and correct ergonomic problems in the workplace. Our review of information and sources was not exhaustive, but the sources identified in this Tech Tip should be among the best available.

## **VDT Ergonomics Program [Video]**

Core Media  
1771 NW Pettygrove  
Portland, OR 97209  
Phone: (503) 952-0012 or (800) 537-8352  
Length: 15 minutes  
Cost: \$450 for video and \$2.50 for each companion handbook, up to 100 copies. The handbook costs \$1.75 per copy for quantities over 100.

A comprehensive video that discusses proper workstation procedures and personal troubleshooting techniques. The companion handbook provides an employee reference on proper procedures and a workstation checklist.

## **Designed to Work: Office Ergonomics Tool Kit [Video and CD-ROM]**

Core Media  
1771 NW Pettygrove  
Portland, OR 97209  
Phone: (503) 952-0012 or (800) 537-8352  
Length: 7 minutes  
Cost: \$495 and \$2.95 for each companion handbook

The video teaches the fundamentals of ergonomics and shows you how to design your workstation, depending on the type of work you do. The employee handbook shows you how to work ergonomically. Good posture, office design, troubleshooting, and stretching exercises are covered. The program also comes with a manager's guide that has a checklist for evaluating workstations.

The CD-ROM includes an interactive program that educates employees on the optimal workstation and also demonstrates office stretches to prevent injuries.

## **Ergonomics and Your Health [Video No. 704]**

The Training Network, Inc.  
106 Capitola Drive  
Durham, NC 27713  
Phone: (919) 544-6612  
World Wide Web Homepage:  
<http://www.tni-online.com>  
Length: 13 minutes  
Cost: \$199.95

This video discusses office ergonomics and proper desk and

chair use for comfort and injury prevention. It also covers exercises to prevent shoulder, neck, and back pain, and ways to prevent eyestrain and repetitive motion injuries.

## **Ergonomics: A Practical Guide, Second Edition [Publication No. 12218-000]**

National Safety Council  
Headquarters  
PO Box 558  
Itasca, IL 60143-0558  
Phone: (800) 621-7619  
Cost: \$29.95 for National Safety Council Members (the Federal Government is considered a member)

This guide is designed to provide a quick reference to help you identify and correct ergonomics problems and to help you establish an ergonomics program for your employees.

## **Additional Sources of Information**

Many web sites have information on ergonomics. One of the best is: <http://www.safetyinfor.com>. It has information on all safety-related topics, including an extensive section on ergonomics. This web site can help you gain an increased knowledge of ergonomic problems and information that will help you prevent injuries in your workplace.

## Conclusions

Many employers have developed effective ergonomics programs and common-sense solutions to address ergonomic problems in their workplaces. Training is an important component in accomplishing this objective. Once training has been provided, it's important to incorporate this knowledge in your daily work routine to prevent injuries caused by cumulative trauma disorders.

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## About the Author...

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### **Additional single copies of this document may be ordered from:**

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