

## **Tracking Work-related Carpal Tunnel Syndrome (CTS)**

Completed Occupational Health Branch Activity, 1998-2002

### **Background**

Carpal Tunnel Syndrome (CTS) in workers is an important, well-documented public health problem. CTS has been shown to take a tremendous toll in terms of long term disability, impact on the workforce, and cost. Since the early 1980's, disorders such as CTS related to repeated trauma have been increasing. They now account for over 60% of all reported occupational illnesses. According to the National Institute for Occupational Safety and Health (NIOSH), "Musculoskeletal problems are the largest single problem facing American workers today, costing between \$13 and \$20 billion annually."

In 1997, California first received funding from the National Institute for Occupational Safety and Health (NIOSH) to collect data on work-related CTS. The California Department of Health Services' occupational CTS program was developed to identify cases of work-related CTS, characterize risk factors, develop interventions in the workplace, and devise prevention strategies. Data were collected from 1998 to 2002.

### **Purpose**

The California occupational CTS program aimed to identify industries, occupations and exposures that put workers at risk for CTS. By identifying and understanding the risk factors, prevention measures can be developed and implemented by employers and workers.

### **Activities**

In order to achieve its goals, the California occupational CTS program:

- Collected data using Doctor's First Reports of Occupational Injury or Illness to identify cases;
- Interviewed workers by phone to confirm and classify cases, as well as to gather more detailed information about occupational and non-occupational risk factors;
- Carried out worksite investigations to identify risk factors and make recommendations for prevention; and
- Developed and distributed findings, recommendations, and health education materials to employers, employees, unions, trade organizations, public health professionals, and others.

### **Partners**

- National Institute for Occupational Safety and Health (NIOSH)
- UC San Francisco/UC Berkeley Ergonomics Program
- Public Health Institute

## Frequently Asked Questions

1. What causes carpal tunnel syndrome (CTS) and what are the symptoms?
2. How can I find out if I have CTS?
3. What can be done to prevent work-related CTS?
4. What is the medical treatment for CTS?
5. Is the work-related CTS program still going on?

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### **1. What causes carpal tunnel syndrome (CTS) and what are the symptoms?**

CTS occurs when there is pressure or pinching of the median nerve as it passes through the carpal tunnel in the wrist. Swelling in this tunnel can press on the nerve and cause symptoms in the hand and wrist. Common symptoms include pain, numbness, burning, or tingling in the wrist, thumb, and first three fingers. Occupational risks that can lead to CTS include repetitive or forceful tasks using the hands and wrists in awkward or bent positions. Some examples include typing, using tools, cashiering, or decorating cakes.

### **2. How can I find out if I have CTS?**

Your health care provider can determine if you have CTS related to your work. He or she will take a detailed history of your work, and may conduct tests such as x-rays, laboratory tests, or tests to see how well your nerves work (called nerve conduction studies (NCV) or electromyograms (EMG)).

### **3. What can be done to prevent work-related CTS?**

Work-related CTS is a preventable health condition. Many ergonomic solutions such as adjustable workstations and ergonomically-designed tools are available to prevent workers from developing CTS.

### **4. What is the medical treatment for CTS?**

Medical treatment often includes a wrist splint and anti-inflammatory medication. Sometimes injections of cortisone are used to reduce swelling. In the small number of patients who do not improve with nonsurgical treatments, surgery can be done to relieve pressure on the median nerve by cutting a ligament at the bottom of the wrist, allowing more room for the nerve in the carpal tunnel.

### **5. Is the work-related CTS program still going on?**

Doctor's First Reports of Occupational Illness and Injury (DFRs) are still collected and archived, but due to limited resources, the last CTS reports entered into the computer for analysis and follow-up were from December 2002. Final data analysis and reports are pending.

### **Related Resources** (current at the time project was completed)

- CDC/NIOSH information on ergonomics and musculoskeletal disorders [www.cdc.gov/niosh/topics/ergonomics/]
- Cal/OSHA Ergonomic Standard [http://www.dir.ca.gov/title8/51110.html ]
- Canadian National Occupational Health and Safety fact sheet on CTS [www.ccohs.ca/oshanswers/diseases/carpal.html ]
- National Institute of Neurological Disorders and Stroke CTS page – [www.ninds.nih.gov/disorders/carpal\_tunnel/detail\_carpal\_tunnel.htm]

### **Related OHB Publications**

- Guide to Getting Medical Care for Job-Related Pain That Won't Go Away - medical care for musculoskeletal disorders
- 911 Dispatchers - Helping Others Shouldn't Hurt You!
- Drywall Installers - Prevent Back, Wrist, Neck and Shoulder Injuries
- Grocery Cashiers - Serving Customers Shouldn't Hurt You!
- Lab Workers - Take the Pain Out of Pipetting
- Nursery Workers - Prevent Back, Hand, Neck and Wrist Problems!
- Pavement Breaker Operators - Prevent Back, Joint, and Muscle Injuries!
- Physician's Guide to the California Ergonomics Standard - Helping Patients With Work-related Repetitive Motion Injuries & Other Musculoskeletal Disorders
- Sewing Machine Operators - Feel Better! Work Better! Available in English, Chinese, and Spanish

These publications and more information about the work of the Occupational Health Branch (OHB) are available at: [www.cdph.ca.gov/programs/ohb](http://www.cdph.ca.gov/programs/ohb) .