

There are several approaches that an employer can consider when addressing these occupational injuries/illnesses. Be sure to include the assistance of your safety committee:

- *review and analyze injury and illness records to determine whether a pattern of these problems occurs in certain jobs or work tasks.*
- *analyze the jobs or work tasks themselves to determine if the jobs present risks that may contribute to CTDs*
- *look for signs of a potential problem such as worker reports of aches and pains*
- *share management's commitment in problem identification and solution*
- *consideration of this problem when implementing new work processes and purchasing new equipment*
- *identify effective **controls***

⇒ Consider these effective **controls** to eliminate or to reduce the risk factors:

- **engineering**
- **administrative**
- **establish medical management**
- **training and education**

Engineering controls - rearranging, modifying, redesigning or replacing tools, equipment, workstations, packaging, parts, or products. These are generally preferred over other controls.

Administrative controls - changing work practices or the way work is organized: provide variety by job rotation, adjusting work schedules and production, and/or frequent or longer work breaks.

Establishing medical management - encouraging early reporting of symptoms, ensuring prompt evaluation of reports by health care providers, making health care providers familiar with jobs, giving employees with a cumulative trauma diagnosis restricted or transitional duty assignments (often referred to as modified duty) until effective controls are completed.

Training and Education - overall risk awareness training for employees so they can recognize general risk factors, learn the procedures for reporting of symptoms, and become familiar with the process the facility is using to identify and control problem jobs, and targeting training for specific groups of employees because of the jobs they perform.

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RI Committee on Occupational Safety & Health
(401) 751-2015
[Www.coshnetwork.org/RICOSH.htm](http://www.coshnetwork.org/RICOSH.htm)

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RI Department of Labor and Training
Division of Workers' Compensation
Education Unit



CUMULATIVE TRAUMA DISORDERS

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Health and Safety Series

CUMULATIVE TRAUMA DISORDERS

This brochure is not a complete summary of your obligations, nor is the information provided intended to determine full compliance with any state or federal law concerning this health and safety issue or as a substitute for medical or legal advice.



“Cumulative trauma syndrome,” “repetitive strain injury” and “overuse syndrome” all refer to terms that have been used to describe cumulative trauma disorders. This condition usually develops over a period of time and can be found in a variety of occupations, from office workers to meat cutters.

In a March 2004 report from the US Bureau of Labor Statistics of lost time injuries and illnesses during 2002:

- ◆ *A total of 1.4 million injuries and illnesses in private industry required recuperation away from work beyond the injury date.*
- ◆ *Among major disabling injuries and illnesses, median days away from work were highest for carpal tunnel syndrome (30 days)*
- ◆ *Among the most frequent events or exposures, repetitive motion, such as grasping tools, scanning groceries, and typing, resulting in the longest absences from work - a median of 23 days.*

Common Causes for Cumulative Trauma Disorders

Work related and non-work related conditions can either individually, or by interacting with each other, give rise to these disorders. While there can be many possible causes, cumulative trauma disorders often arise when workstations, equipment, or tools do not fit the worker. Damage to the muscles, joints, or nerves can occur within a short time, or over an extended period of time. These injuries normally occur in the hands, wrists, elbows, and shoulders, but can also occur in the neck, back, hips, knees, feet, legs and ankles. Some of the common medical conditions that have been related to cumulative trauma disorders include:

- ◆ *carpal tunnel syndrome*
- ◆ *trigger finger*
- ◆ *deQuervain's disease*
- ◆ *epicondylitis*
- ◆ *thoracic outlet syndrome*
- ◆ *bursitis*
- ◆ *tendonitis*

Many jobs in a workplace have the potential for an injury or illness to occur while performing the normal work or daily activities required of the job. It can be caused by too many uninterrupted repetitions of an activity or motion, unnatural or awkward motions, overexertion, muscle fatigue, low temperatures, incorrect postures, and vibration.

Several examples of typical job activities often associated with CTDs:

- *buffing and polishing*
- *typing and data entry*
- *meat cutting and packaging*
- *using hand and vibrating tools*
- *paint scraping and sanding*
- *reaching and lifting*

Certain risk factors have been identified as causes of CTDs from the job activities listed above. They include:

- ◆ *static posture*
- ◆ *awkward posture*
- ◆ *repetition*
- ◆ *force*
- ◆ *vibration*
- ◆ *extreme temperatures*

Symptoms of Cumulative Trauma Disorders

Although certain individuals may have no visible sign of injury, they may find it difficult to perform simple tasks. The following are the more common complaints associated with CTDs:

- ◆ *pain*
- ◆ *tingling*
- ◆ *numbness*
- ◆ *visible swelling or redness*
- ◆ *loss of flexibility and strength*

Treatment

Physicians usually depend on a patient's reports of symptoms and will obtain a detailed history of the symptoms and of the patient's work and non-work activities.

If the problem seems to be a CTD, the physician might do tests to determine which kind of CTD is involved. Tests might involve moving the wrist in particular ways or using instruments to determine whether nerve function has been affected. Treatments, of course, depend on the nature and severity of the condition. Mild cases diagnosed early can often be treated successfully with anti-inflammatory drugs, rest or limited activity, and in some cases physical therapy. There is increasing evidence that early treatment is far more effective. Depending on the type of CTD, severe or longstanding cases can be treated with prolonged rest, anti-inflammatory drugs, splints, heat or ice treatments, or physical therapy.

Prevention

Although a physician is responsible for diagnosing cumulative trauma disorder, employers should be pro-active, and alert to employee's complaints of pain, numbness, etc. It could be an indication that a work related cumulative trauma disorder is developing. As previously mentioned, unlike other work related injuries or acute illnesses, CTDs often take time to develop and may worsen without the employee knowing the cause of his/her problem.