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5-minute safety talk

Carpal Tunnel Syndrome: Prevention is in Your Hands

Cumulative trauma disorders (CTDs) are musculoskeletal disorders that result from the mounting effects of performing a task again and again in an awkward position, and they are among the fastest growing workplace injuries. According to the Bureau of Labor Statistics, cumulative trauma disorders account for 60 percent of all occupational illnesses. Of these, carpal tunnel syndrome (CTS) is the most frequently reported.

Carpal tunnel is named for the eight bones in the wrist, called carpals, which form a tunnel-like structure. This body structure contains the tendons that control finger movement and is the pathway for the median nerve to reach sensory cells in the hand. The following actions may cause swelling and pressure in this area, leading to carpal tunnel syndrome:

- Repetitive movements of the hand
- Forceful grasping or pinching of tools or other objects
- Awkward positions of the hand and wrist
- Direct pressure over the carpal tunnel

The occurrence of CTS is not restricted to employees of any one industry, although it is most common in the manufacturing sector. If your job demands a lot of repetitive wrist, hand and arm motion, not necessarily forceful or strenuous, you might be a potential victim of CTS. Those most likely to be affected tend to have an occupation that involves:

- Cutting
- Small parts assembly
- Finishing
- Sewing
- Cleaning
- Use of vibrating tools
- Large amounts of typing

Symptoms tend to present themselves over time, so many people wait longer than they should to seek medical attention. If you think you might have carpal tunnel syndrome it is better to consult a

physician sooner than later. Common symptoms of CTS include:

- Painful tingling in the hands, enough to disturb sleep
- Fingers feeling swollen
- Decreased ability to squeeze things, weakness
- Inability to distinguish between hot and cold by touch
- Trouble performing simple finger tasks, clumsiness

In order to diagnose CTS, a physician must first rule out other possible conditions including thyroid disease, diabetes, arthritis, obesity, and even pregnancy. Upon diagnosis, treatment may begin with conservative therapy including splints and anti-inflammatory drugs.

In severe cases, surgery may need to be performed. However, even a person who has surgery may see a reoccurrence of CTS if they return to the same environment, without ergonomic training and/or equipment changes. Experts agree that the best way to “cure” CTS is to prevent it with ergonomics, equipment changes and increased awareness.

OSHA sets a standard

OSHA has proposed guidelines that address back injuries, carpal tunnel syndrome and other musculoskeletal disorders at work (in manufacturing, operations and manual handling), creating a standard for implementing ergonomic programs where none exist. These initiatives will help keep employees safe, cut safety and health costs, and increase productivity and quality gains.

Dial e-r-g-o-n-o-m-i-c-s

Some companies have realized the importance in instructing all employees (from administrative to field forces) on ergonomics. These companies work with their employees to arrange their workstations and give them some control over their environments. The goal is to eliminate possible stressors, whether it be

work surfaces, lighting, or maintaining air quality and temperature.

Employers also can help prevent their employees from suffering cumulative trauma disorders in their employees by offering a list of suggested exercises, varying the employee's work duties and encouraging breaks.

The work stress connection

Recent studies suggest that stress may play a role in leading to CTDs such as carpal tunnel syndrome. Stress from a variety of sources often causes people to tense their muscles, and this muscle tension appears to lead to CTDs. Some of the most common work stressors cited by one such study include job security, work pressure and lack of support from a supervisor. However, the stress connection is not conclusive. It could be that stressed out workers are simply more likely to report a cumulative trauma disorder than workers who are not under stress.

By the same token, if an employee's work setup is comfortable, it may not only help prevent CTDs, but the employee will probably deal with mental stress better as well. That is why so many companies emphasize ergonomic equipment and furniture tailored to each worker.

Happy, healthy and well

Happy workers tend to be healthy workers. It is difficult to eliminate stress from the job through policy, but being aware of stress is the key. Cumulative trauma disorders are difficult problems to solve. Therefore, a multifaceted approach including preventative education, ergonomics and stress reduction may be best.

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