

Safety Spotlight

Preventing CTDs in Office Settings¹

A cumulative trauma disorder (CTD) is defined as the excessive wear and tear on tendons, muscles, and sensitive nerve tissue caused by continuous use over an extended period of time. CTDs can develop from improper work positioning, repetition, or force.

Millions of Americans work in front of computers every day and, while this may not seem like a task that would expose employees to potential injury on the job, improperly designed workstations do pose ergonomic concerns. Ergonomics is the science of fitting workplace conditions and job demands to the capabilities of the working population.

Main Risk Factors

- Awkward posture and position such as bent wrists, elbows held away from the body, outstretched arms, or slumped shoulders
- Repetitive action from typing and sorting operations
- Use of excessive force when typing

These risks can be controlled by adjusting the workstation, varying worker position, reducing continuous or repetitious actions, and periodically stretching throughout the day. Employers should design workstations to reduce or eliminate bad ergonomic exposures by creating a neutral work position.

Key Elements for Creating an Ergonomic Computer Workstation

- Investing in a good chair that can be adjusted in several ways. The seat height should be set so that thighs are nearly parallel with the floor, with feet resting flat on the floor. The chair's back should adjust and provide lumbar support.
- Ensure that a monitor's casing is 2-3 inches above eye level, centered, and approximately 18-30 inches from the face.
- Take steps to reduce glare on the screen.
- Use a document holder next to the computer screen placed at the same height and distance from the worker's face as the screen.
- Keep wrists flat and straight in relation to forearms and centered to the body when using a keyboard and mouse. Relax the arms and elbows, keeping them close to the body. Place adjustable keyboards so they form an approximate 90° angle at the elbow.
- Take frequent, short breaks to stretch the hands and fingers and to rest the eyes (try focusing on an object several feet away and move eyes in all directions).
- Position work equipment so the most frequently used items are within a comfortable reaching distance.
- Use a hands-free device (such as a headset) to prevent cradling of the phone.

¹ Hamilton, Amy. "Cumulative Trauma Disorder." *Safety Health Magazine*, *Safety Health Magazine*, 6 Sept. 2013, www.safetyandhealthmagazine.com/articles/cumulative-trauma-disorder.



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