Cumulative Trauma Disorder Safety Topic



This section addresses Cumulative Trauma Disorders, and ergonomic hazard.

There are five main risk factors that contribute to the development of a CTD:

1. Position – When working with the wrists approximately straight, elbows at about 90°, shoulders relaxed and the spine kept in its natural “S” curve, the strain placed on muscles, tendons, discs and ligaments is minimized.

2. Force – The more force required to perform a particular task, or the longer that force must be applied, the greater the risk of developing a CTD.

3. Repetition – Tasks that use the same muscles and tendons over and over, require more muscle effort and allow less recovery time. Often jobs that require high repetition rates can lead to fatigue and injury.

4. Vibration – The use of vibrating or impact tools or equipment for hours at a time can stress the hands and arms, the lower back and the neck.

5. Lifting – Unassisted, frequent or heavy lifting, especially when performed improperly, can stretch the ligaments of the back and cause the vertebrae to become misaligned.

Other factors such as extreme temperatures, poor lighting, general health, age and gender can also have an effect. In fact, it is impossible to predict exactly who might develop a CTD. Because cumulative trauma disorders are…