



Weekly Safety Briefings

Week # 10 – Feb. 27 to March 3, 2023

Ergonomics

Monday - Ergonomics

Ergonomics literally means “the rules of human strength.” Engineers interested in the design of work environments originated the word in the 1950s. Today, the purpose of ergonomics in the workplace is to create a better match between the workers, the work they perform, and the equipment they use. A good match increases workers’ productivity and reduces ergonomic injuries.

According to the Bureau of Labor Statistics, 34% of all lost-workday injuries and illnesses are work-related musculoskeletal disorders (WMSD). WMSD are a result of a bad match between the worker, the work they perform and the equipment they use. More common names for WMSD include repetitive stress injuries, cumulative trauma disorders, tennis elbow, white finger, and the most common of all, carpal tunnel syndrome.

Tuesday – Risk Factors

Nearly every type of work or occupation has the potential for causing work-related musculoskeletal disorders (WMSD). To prevent these injuries, it is important to understand the risk factors that contribute to them. Ergonomic factors refer to workplace conditions that pose the risk of injury to the musculoskeletal system of the worker.

Factors that contribute to the development of WMSD include:

- Force – the strength to perform a task
- Repetition – the frequency or number of times a task is performed during a shift
- Posture – positioning of the body to perform a task
- Vibration – which might come from overuse of power hand tools
- Temperature – extreme temperatures are more harmful to the body
- Duration – the amount of time in a workday spent performing work tasks

Non-work related issues – health, lifestyle, hobbies, and sports may also add to the ergonomic risk factors.

Wednesday – Identifying and Preventing

Identifying and preventing work-related musculoskeletal disorders (WMSD) requires a careful review of the risk factors. Prevention may require modification of work tasks to eliminate one or more of these risk factors.

- **The first step is to find out which jobs may be causing problems.** This can be done by looking around your workplace, talking to colleagues, and learning the early warning signs. Signs to look for include; worker discomfort or fatigue, workers modifying tools or equipment, poor product quality, or worker reports of problems. Once the jobs have been identified, make a list of these jobs.
- **The second step is to look at the specific tasks that make up the jobs previously identified.** When looking at each task, determine how frequent it occurs (one time per shift or twenty times per hour), and how hard each task is to perform (from the worker’s point of view).
- **The third step is to observe the work tasks.** Special attention should be paid to how many of the risk factors are associated with the job task. The higher the number of risk factors associated with a job, the greater the chance that a WMSD might develop. Talking to colleagues who perform the work can often provide valuable information about how the work task may be improved.



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Thursday – Rest Periods and Breaks

Ergonomic injury risk factors include forceful movements, repetitive motions, awkward postures, and lack of rest. Rest periods give the body time to recover from work. Break time exercises and stretches strengthen the body. Workers should think of themselves as Industrial Athletes. Athletes wouldn't participate in a sport without proper rest and warm-up so use the same preparation on the job.

Maintaining overall health reduces your risk of injury. Get a good night's sleep to rest your body and maintain alertness. Eat healthy foods and drink fluids to boost energy and stay hydrated. Aerobic exercise and weight training increase strength and vitality. Stretching, Yoga, and Pilates improve flexibility and build core body strength.

Pay attention to signs of discomfort and fatigue on the job. These are warning signs from your body. As muscles tire during a work task, slouching can lead to poor posture, or sloppy, uncontrolled movements, and injuries. Rest breaks mean recovery for the body. During a job task, take micro-breaks lasting 10-15 seconds every 10 minutes. Take mini-breaks lasting 3-5 minutes every 30 to 60 minutes. These short breaks give the body a rest, reduce discomfort, and improve your performance.

Friday – FREE SPEECH FRIDAY

Have you ever suffered any discomfort or injury from repetitive motion or fatigue?

How did you receive the discomfort or injury?

What were your symptoms and how long did they last?

Has there been a lasting impact on how you function since sustaining those injuries?