

The Facts On Ergonomics



OCCUPATIONAL AND ENVIRONMENTAL SAFETY

Ergonomics is the science of fitting the job to the worker. Designing workstations and tools to reduce work related musculoskeletal disorders (MSDs) can help workers stay healthy. MSDs occur when the physical capabilities of the worker do not match the physical requirements of the job. Prolonged exposure can cause damage to the worker's body.

Musculoskeletal Disorders

Musculoskeletal Disorders or MSDs are injuries and disorders that affect the human body's movement or musculoskeletal system (i.e. muscles, tendons, ligaments, nerves, discs, blood vessels, etc.). Some examples of MSDs include:

- Carpal Tunnel Syndrome
- Tendonitis
- Trigger Finger
- Lower Back Pain
- Muscle Strains
- Tennis Elbow

Control Methods and Examples

- Engineering Controls
 - Physical changes to the workplace. (e.g. lifting mechanisms, adjustable workstations.)
- Work Practice Controls
 - Taking breaks to move and stretch.
 - Using carts/dollies to move objects.
 - Eliminating reaching.
- Administrative Controls
 - Training
 - Job rotation
 - Information and signage in work areas.

Common Causes of MSDs

- Repetitive and/or prolonged activities
- Forceful exertions
- Prolonged static postures
- Prolonged sitting or standing
- Exposure to heat or cold- this affects the bodies blood circulation, leading to cramping, loss of flexibility, and poor dexterity.
- Illumination- under and over lit areas cause unnecessary eye strain
- Excessive vibration
- Awkward postures, including reaching above the shoulders or behind the back
- Twisting of the wrists and joints
- Using inappropriate or inadequate hand tools
- Continued bending at the waist
- Continued lifting from below knuckles to above shoulders.
- Twisting at the waist, especially while lifting
- Lifting or moving heavy and/or asymmetrical objects.

