

THE PacificComp TRAINER

ERGONOMIC RISK FACTORS

Whether you use a shovel, keyboard, hammer, or lathe you encounter ergonomic risk factors. This training focuses on identifying ergonomic risk factors and then developing solutions for those risk factors.

Several key risk factors can lead to injuries caused by poor ergonomics. The following is a list of risk factors that can be associated with various types of jobs:

Repetition

When you perform the same or similar motions repeatedly, this can lead to trauma in the joints and surrounding areas. Without rest and recovery, repetition can lead to injury. Some examples are:

- Typing on a keyboard
- Repetitive lifting
- Moving and clicking a mouse
- Operating one piece of equipment all day
- Looking back and forth between a document and a monitor

Static Posture

This occurs when a single position is maintained for an extended period of time. Some examples are:

- Standing in one place
- Holding the hand above the keyboard or mouse
- Holding down a key, button, or control
- Sitting for extended periods of time

Awkward Postures

Incorrect postures keep joints held in unnatural positions. Some examples are:

- Typing with bent wrist
- Twisting the body
- Turning the head to view the monitor positioned to the side
- Reaching and holding items overhead
- Leaning over documents placed in front of a keyboard

THE PacificComp TRAINER

- Slouching or leaning in a chair
- Crouching and bending
- Holding the phone against the shoulder while talking

Mechanical Contact Stress

This occurs when repeated exposure to a hard or sharp surface digs into soft tissue. Some examples are:

- Resting wrists/arms on the edge of a desk or work surface
- Leaning elbows on a chair or desk while working
- Sitting in a chair that places pressure on the back of the legs

Ergonomic Hazards can be controlled through Exposure Avoidance, Engineering Controls, Work Practice Controls, and Personal Protective Equipment. The following lists controls for ergonomic hazards:

Exposure Avoidance

Is the task creating the hazard necessary? Removing an activity is the best way to avoid a risk but not always practical. Evaluation of all processes should be done regularly to ensure that the task is being performed safely and in the most efficient manner.

Engineering Controls

Engineering controls impact the source of a hazard and control exposures to a hazard without proactive measures by employees. Some examples are:

- Workstation design
- Specially designed tools and equipment
- Customized facilities
- Proper materials
- Reducing the weight of objects/loads

THE PacificComp TRAINER

Work Practice/Administrative Controls

Instead of physical changes to the workstation or equipment work practice, administrative controls change the way that a job is performed. Some examples are:

- Adjustment of work space
- Job rotation
- Rest breaks
- Training
- Changes to procedure

Personal Protective Equipment (PPE)

PPE refers to the protective clothing or equipment worn to protect the body against hazards. Some examples are:

- Braces
- Gloves
- Padding

Employees and employers can work together to identify hazards, develop solutions, and then implement the best solutions. After the implementation of solutions, monitor the results to ensure that the new controls work and to make necessary adjustments. Adherence to these steps is the most effective way to eliminate ergonomic risk factors and subsequent injuries.

Cal/OSHA Publications:

Cal/OSHA has a number of ergonomic publications for construction and general industry at the following web-address:

<http://www.dir.ca.gov/dosh/PubOrder.asp>

Ergonomics – History of the California Standard

<http://www.dir.ca.gov/DOSH/ergohist.htm>

NIOSH: Elements of Ergonomics Programs

<http://www.cdc.gov/niosh/docs/97-117/pdfs/97-117.pdf>