

## Proper Lifting Techniques

AS YOU LIFT, Always...

1. Keep the load as close to the body.
2. Keep your back straight.
3. Turn your feet outward and push your buttocks out. (Picture a professional weight Lifter)
4. Bend your knees.
5. Keep your head forward. Your lift will be more balanced and the curves in your spine will stay balanced and aligned.
6. Breathe out as you lift.



### COMMON LIFTING PROBLEMS:

1. Lifting with back bent and legs straight.
2. Holding load too far from body.
3. Twisting while lifting.
4. Losing balance during a lift because:
  - Your feet are too close together.
  - The load is uneven or unstable.
  - The load is too heavy
5. Contorting the body in order to lift and carry loads in cluttered areas

## Industrial Ergonomics

Ergonomics is the science of designing the job to fit the worker instead of physically forcing the worker's body to fit the job. By adapting tasks, workstations, tools and equipment to fit the worker, physical stress on a worker's body parts can be reduced, preventing many potentially serious and disabling MSDs. Configuring the work area to fit an employee's body is a big part of ergonomics.

### Ergonomic Process

#### Identification of Risk factors

Certain physical elements of a job or a task are potentially stressful and are known to contribute to MSDs. Job stresses become harmful and may result in MSDs when workers exceed their capabilities and limitations. Risk factors, which increase the risk of developing MSDs include:

- Repetitive motions;
- Awkward postures;
- Forceful exertions;
- Mechanical pressure on soft tissues;
- Inadequate rest.

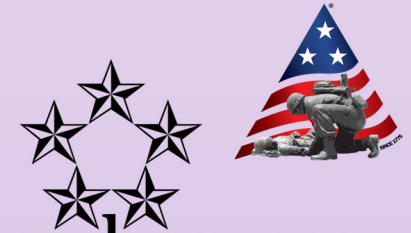
#### Work Site Analysis

A task analysis breaks a task into its various elements or actions, describes them, measures and quantifies risk factors inherent in the elements, and identifies conditions contributing to the risk factors.

#### Solutions and Controls

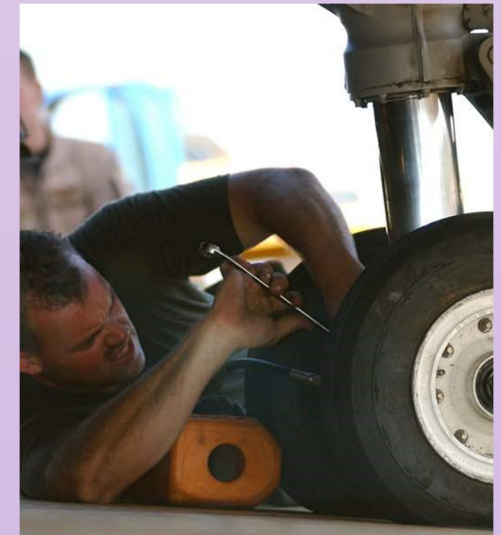
MSD hazards can be controlled through proper engineering design of the job, workstation and equipment. Engineering controls attempt to reduce MSDs risk factors. Administrative controls are work practices and policies established to reduce or prevent exposure to ergonomic risk factors. Engineering controls are preferred.

**Concerns or questions? Contact IH Department at  
706-787-1213**



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## INDUSTRIAL ERGONOMICS



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# Industrial Ergonomics

The three primary ergonomic risk factors that cause MSDs are awkward posture, high force, and repetitive motion. Combination of three risk factors increase the chance of developing an MSD.

## Forceful Exertion

Many work tasks require high force loads on the human body. Muscle effort increases in response to high force requirements, increasing associated fatigue which can lead to MSD.

### Engineering Controls

- Use a device such as a dolly, forklift, or crane to reposition heavy objects to limit force exertion.
- Reduce the weight of a load to limit force exertion.
- Select Proper pneumatic and power tools for the job.

### Administrative and Work Practice

- Require that heavy loads are only lifted by two people to limit force exertion.
- Use proper lifting technique to lift the heavy objects.



## Awkward Posture

Awkward postures place excessive force on joints and overload the muscles and tendons around the affected joint. Joints of the body are most efficient when they operate closest to the mid-range motion of the joint.

### Engineering Controls

- Reposition a workstation to eliminate a long/excessive reach and enable working in neutral postures.
- Use adjustable equipment that allows for a comfortable, upright working posture.
- Ergonomic tools should be utilized that allow workers to maintain optimal joint positions.

### Work Practice Control

- Workers should be trained on proper work technique to avoid awkward postures whenever possible.

## Repetitive Motion

Many work tasks and cycles are repetitive in nature, and are frequently controlled by work processes.

### Engineering Controls

- Design or re-design work stations, lighting, tools, and equipment.
- Use pneumatic and power tools to replace hand tools to eliminate repetitive motion.

### Work Practice Controls

- Taking regular breaks from long or repetitive tasks.
- Design a job rotation system in which employees rotate between jobs that use different muscle groups.

