



# NORSTEEL SAFETY SENTINEL

PROMOTING A SAFE WORKING ENVIRONMENT

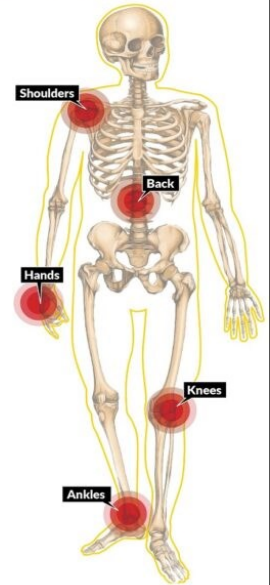
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## PREVENTING MUSCULOSKELETAL INJURY (MSI)

### Common Ergonomic and Job Risk Factors Include:

- Repetitive motion
- Over-exertion
- Over-reach
- Reactive torque
- Postural strain
- Vibrations
- Trauma (struck, cut or caught by equipment)

Many of these cause musculoskeletal disorders (MSDs), injuries and disorders that affect the human body's movement or musculoskeletal system (muscles, tendons, ligaments, nerves, discs, blood vessels, etc.).



## How to Reduce the Risks...

### ENGINEERING CONTROLS

- Can mechanical lifting aids such as hoists, pallet jacks, carts, or conveyors be used instead of manual material handling?
- Can the load be lifted within the range of knee to waist height?
- Can the vertical distance the load has to be lifted or lowered be shortened? Options may include limiting shelf height, and raising the worker.
- Can stooped or twisted positions be avoided by providing unrestricted work space, or arranging the workspace differently?
- Can the size of the load be made smaller? Options include ordering smaller containers, or having workers make two trips with smaller loads rather than one trip with a heavy load.
- Can carrying distance be shortened by changing the workflow?
- Can equipment or furniture be modified to eliminate or reduce awkward postures for workers?

Can the workplace be modified to eliminate or reduce the need for lifting of heavy objects?

### ADMINISTRATIVE CONTROLS

- Can workers rotate between tasks involving different muscles, for example, stacking boxes and driving a forklift?
- Can workers use safe work procedures to minimize risk factors, for example, using neutral wrist posture while pushing a cart?
- Can workers be trained to perform the tasks using neutral postures?
- Can storage space be organized so that heavy items are located between knee and waist height and light items above shoulder height?
- Can the task design be changed? Examples include changing a lifting task into a lowering task, or changing a carrying task to a pushing or pulling task.
- Can workers be given time to rest or recover when lifting or handling loads?

Can work demands and work pace be balanced more effectively?

### PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) can only be used when engineering or administrative controls can't be applied. Some questions to consider:

- Do workers have suitable gloves that fit properly? For example, they may need padded, friction-enhanced or vibration-limiting gloves.
- If workers are required to kneel, do they have knee pads or a kneeling pad?
- Do workers have warm clothing if they have to work in cold conditions?

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Read More on OHS Regulation  
"Ergonomics (MSI)  
Requirements"

R.4.46—4.53

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