



## Manual Material Handling - Shoveling/Digging

An injury that results in a strain, sprain, torn muscle, tendon, ligament or joint is called a MSI (musculoskeletal injury).

This Safety Talk is to raise awareness of workplace hazards that can cause a MSI.

Manual material handling is one of the leading causes of strains and muscle soreness throughout the construction industry. Digging requires more repetitive bending than shoveling, but shoveling demands longer time in the same posture. The type of material being shoveled determines the type of shovel needed for the job; however most shovels at worksites are short handled, requiring excessive bending.

The following safety information will provide you with training on assessing hazards that could lead to a MSI and instruct on implementing control measures to prevent a MSI.

### Risk Assessment/Hazards

The following are identified as hazards that may result in a MSI when shoveling or digging:

- Ground instability
- Twisting your back when shoveling or digging
- Lifting heavy loads with a shovel
- Stretching to reach the material you are shoveling
- Bending while shoveling or digging for long periods
- Long periods of gripping the shovel
- Continuous shoveling or digging



### Control Measures/Safeguards

Implement the following safe work procedures to eliminate or reduce a MSI:

- Stand with feet apart and one ahead of the other; this improves stability.
- When done properly shoveling is a rowing motion. Allow your whole body to help, instead of just your arms and back. Push and pull instead of lifting.
- Always move with the shovel, using your whole body to smoothly follow-through in the shoveling motion.
- Face toward the direction you will throw the shoveled load; this will keep you from twisting and lessen the strain on your back.
- No matter what material you are shoveling, always try to “skim off of the top.” Do not pick up more than 10 pounds with any shovel at one time.
- Work in a radius close to your body to avoid stretching and reaching while shoveling and digging.
- Pay attention to the blade type, handle length and grip of the shovel you are using. Always select the most appropriate tool for the job.
- When shoveling select a tool with a flat blade, and when digging use a round shovel blade.
- Use a handle length that allows you to keep your back as straight as possible, which will lessen the strain on your back caused by excessive lifting.
- The hand holding the shaft of the shovel should be held in a palm up position.
- Adjust the handle size of your shovel so that its diameter comfortably fits the size of your hand.
- Take mini-breaks after 20-30 minutes of continuous shoveling or digging.

### Thought Provoking Questions

Have the crew describe a few tasks where shoveling is required.

Can shovel use be eliminated by mechanical means?

Is the proper shovel available on the job?

