

# Spot The Safety Violation: Is This a Safe Lifting Technique?



Is this the way you want workers to lift materials'



Many workers lift, carry, move or otherwise handle various materials by hand as part of their every day duties. But if they don't do so correctly, they're at risk of getting hurt. For example, lifting heavy objects manually can cause musculoskeletal injuries (MSIs), such as shoulder sprains. This picture is a good example of how *not* to lift materials. Instead of bending over and risking a back strain, the worker should squat down and lift the case of water with his legs.

## 7 MSI RISK FACTORS

The MSI risk factors when manually lifting or moving materials include:

### 1. The Object's Weight

The heavier the object, the greater the energy needed to lift and move it and the higher the MSI risk.

### 2. The Object's Weight Distribution & Shape

Moving lighter objects might present a high risk of MSIs if the object's shape or bulkiness makes it hard or awkward to lift and carry.

### **3. Horizontal Distance of Load from the Body**

The horizontal distance of the load away from the body means the distance from the low back to the hands when handling an object in front of the body. The further the object is from the body, the greater the risk of an MSI.

### **4. The Object's Vertical Location**

Vertical location means where the object's located in relation to the floor before, during and at the end of the lifting process. Lifting an object from or to a high level can pose an MSI risk.

### **5. How Long/Often You Handle the Object**

Lifting and moving objects involves a greater risk of MSIs when you do it repeatedly over a frequent or sustained period.

### **6. Your Lifting Posture**

Bending the back and leaning forward 'like the worker in the photo' puts major stress on your spine; bending your knees and using your legs to lift significantly reduces that stress.

### **7. Your Grip**

In addition to increasing the risks of dropping the object, a poor grip reduces the amount of weight you can safely carry.

## **TAKE 5 STEPS TO PROTECT WORKERS**

To protect workers when manually moving materials and to comply with the OHS laws, [take these five steps](#):

- 1) Determine whether materials can be moved mechanically;

- 2) If not, assess the risks of moving the materials manually (use this [checklist](#));
- 3) Adapt the materials to eliminate or reduce any risks to workers;
- 4) Develop methods for safely lifting and moving materials; and
- 5) Train workers on these safe work practices, such as the so-called 'freestyle technique' discussed below.

Researchers are also advocating a 'freestyle technique' when lifting materials that protects workers as long as they follow these basic principles:

**Keep the natural curve in the lower back.** When standing straight, the lower back naturally curves to create a slight hollow. Always try to maintain this curve when lifting, lowering or moving objects. The spine and back are their most stable in this position.

**Contract the abdominal muscles.** By contracting the abdominal muscles when lifting, lowering or moving materials, you improve the spine's stability. Sometimes described as 'bracing,' tightening the abs even slightly reduces the likelihood of injury.

**Avoid twisting.** Twisting the back can make it less stable, increasing the likelihood of injury. Bracing helps reduce any tendency to twist.

**Hold materials close.** Keep the materials as close to the belly button and body as possible. Doing so reduces the strain on muscles in the back and trunk. If necessary, protective clothing such as leather aprons should be used so that sharp, dirty, hot or cold objects can be held as close to the body as possible.