

Lifting, Holding and Handling

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OBJECTIVES

Upon completion of this safety talk, participants will be able to:

- *Be familiar with at-risk areas of the body*
- *Be familiar with strategies to be used to minimize the hazards of lifting, holding and handling materials*

Many construction sites these days use some type of mechanical device for lifting, carrying, holding, pushing or pulling loads of materials. However, much of this type of work is still done manually, putting employees at risk for injuries. Lifting and carrying materials often or for long periods of time puts constant stress on your back and shoulders. This will eventually lead to a serious muscle or joint injury. Although carts and dollies are used to reduce injury, their use can also lead to injury if they are very heavy or moved incorrectly.

The most common injuries that occur when lifting, holding or handling materials typically involve three areas of the body:

- **The back-** The back is made up of a series of joints between the bones of your back (vertebrae) and the flexible “jelly” filled pads called discs. These joints allow for the great flexibility of the back, but it also puts the back at risk for pain and musculoskeletal injuries. When an employee lifts, bends forward, stretches upward or outward, the muscles of the back work harder, ligaments stretch, and the discs get squeezed. These movements can, over time cause the discs to become weak and even to rupture. This can cause permanent pain for the employee.
- **Shoulders and neck-** Carrying even light loads above shoulder level can quickly lead to tired and sore shoulder and neck muscles. The heavier the load, the quicker these muscles will become tired and become at risk for injury. Carrying or resting a load on the shoulders can also cause neck and shoulder injuries. The shoulder joints are lubricated by fluid filled sacs called bursa. Continual stress on the shoulders will squeeze the bursa causing them to become stiff, swollen and inflamed. If this isn't dealt with, it may become impossible to lift the arms.
- **Arms, hands and wrists-**When a load is carried manually, the soft tissues of the hands and wrists can be cut or worn. By carrying a load that is large or awkward, the hands and wrists are forced into a stressful, dangerous position.

You will always need to do a certain amount of manual material handling at every construction site, but it can be done in a way to reduce the possibility of an injury. Solutions can include methods to reduce how often and how long you perform these tasks or using smarter ways to lift and carry loads. These solutions can include changing:

- **Materials or work process.** This would mean using materials, electrical components or work methods that are less labor-intensive. These changes may need approval from your supervisor, the General Contractor or even the architect. Discuss ideas that you have to make the job easier on your body with your supervisor.
- **Tools and/or equipment.** There are many types of material handling devices that can be purchased or rented for all aspects of construction. Devices include special round handles and cushioned grips for carrying heavy objects, powered and non-powered carts and dollies for indoor and outdoor use. There are also a great variety of mechanical, hydraulic and vacuum lifts that can be used to position most electrical components and materials. Discuss these options with your supervisor to see if any may be appropriate for your job tasks.
- **Work rules.** Work rules are in place to help keep you safe, make sure you know which of these rules impact materials handling and be sure to follow them. Materials should be stored at a convenient height off the ground and transported using some type of mechanical device. Storage areas can be organized to help minimize the number of times you have to move materials around your site. For instance, when new materials arrive, place them close to where they'll be used so they don't need to be moved again.
- **Participate in training.** You should take advantage of any ergonomic training provided that will help you identify risky behaviors and alternate methods that will help keep your body safe. Know your limits on the amount of time and the amount you can lift without a break while not putting excess stress on your body. Most of these solutions are cost effective and can help keep you safe and productive.

DISCUSSION QUESTIONS

- What are the most common areas of injury associated with lifting, holding and handling?
- How does bending and lifting affect the discs of your back?
- What training would help to minimize your risk of injury?