

LIFTING GUIDELINES FOR BACK SAFETY

Back injuries and discomfort are very common in the workplace. They occur from improper lifting, reaching, pushing, or pulling. Most often people hurt their backs because they underestimate a load and take on more than can be handled safely. Proper care of the back involves planning ahead, lifting correctly, and getting help for heavy or awkward loads.

Planning ahead

Before moving a load it is important to plan both the load and the route. This allows you to evaluate hazards, limitations, route safety, and final placement. For the load, evaluate the weight, shape, and material. Some items to check include:

- The item or individual to be moved: Do you need special safety gear or special gloves?
- The load - are the size, shape, and weight within your limits? Are there loose parts or sharp edges?
- Can you get a firm hand hold? Will you be able to see over the load and maneuver it along the route?
- Assistance - What kind of assistance will you need? Other people or mechanical aids like a dolly, cart, or specialized equipment determined by the type of load?

The route and placement site

The second part of planning ahead is checking the route you will take and the place where you will deposit the load. Many injuries and considerable property damage occur when unexpected problems are encountered during the move. Some points to consider are:

- The route - Are there steps, tripping hazards, closed doors, or tight doorways or passageways? Are there blind corners or wet or slippery floors? What is the traffic situation? Include people, vehicles and other obstacles that you might encounter.
- The drop-off point - Where will you place the load? Is there room for it? Is the site strong enough to hold the load? Will it block traffic or create a hazard when placed? Is it the right place to put the load or will it have to be moved again?

Design of the back

The back is composed of small bones, called vertebrae, that are stacked on top of each other. Between them are fibrous discs that provide padding and cushion shocks. Nerves run down the center and muscles hold it all together. Because of its structure, the back is strongest in the upright position with the natural curve maintained. It is weakest when bent, extended, or twisted. That's why most back injuries occur when reaching upward or outward, or when twisting.

The best way to protect the back is to remember to keep it in vertical alignment, straight up and down. When lifting with the back upright, the weight naturally distributes down the spine and to the legs. Reaching forward or twisting to lift something does the opposite: concentrates stress on one point and strains the muscles and discs.

Lifting properly

Keeping the structure of the back in mind, all loads should be lifted with the back in the most natural, upright position. The load should be approached to avoid twisting while lifting and with the body over the load as much as possible.

- *Approach the load* - Face the load so you won't have to lift and turn. This means point your feet in the direction you will be moving the load before lifting the load.
- *Grasp the load* - Squat over the load with knees bent and the load between the legs as much as possible. The closer you keep the load to the body, the less stress it places on your back. Make certain you have a good grasp of the load with the whole hand. Wear gloves and check for pinch points and sharp edges. If you can't get a good hand-hold, stop and reevaluate your move before lifting.
- *Carry the load* - Lead with the feet as you carry the load. Turn slowly with the legs, not the back. Change grips carefully and watch for obstructions that could bruise the hands.
- *Place the load* - Put down the load with the same care used to pick it up. Plan your approach to avoid twisting or reaching forward with the load in hand. Squat to put it down just as you did to pick it up.

Since most back injuries arise from underestimating the weight or awkwardness of the load. Make certain to get help whenever you think you might need it.

Special situations

A number of other things must be considered when moving items or patients:

- *Team lifting* - When more than one person is required to lift a load, designate one person to call the directions and the lifting steps so everyone will move at the same pace.
- *Stacking* - Overlap and interlock rows and never stack above the crush height or above the height limits for the facility. Make certain the base is clean and level and can support the weight.
- *Drums* - Use a lift truck with drum forks or a drum dolly to move drums. If moving individual empty drums, roll on the side not the rim and always work on the down side of the drum with the hands on the belly of the drum, not the rim.
- *Cylinders* - Compressed gas cylinders are like bombs with very short fuses. The valve must be protected by a proper safety cap. Move individual cylinders with a special hand truck and walk cylinders only short distances to align them. They must be stored in designated areas and secured with safety chains or bars.
- *Mechanical aids* - Often the best way to move loads is with a mechanical aid like a dolly, hand truck, or rolling cart. Choose the right aid for the job and inspect it before use. Place heaviest items on the bottom with the weight concentrated between the wheels. Keep hands away from the edges so they won't be scraped or crushed at doorways.