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Lifting Injury and Back Strain Prevention

Back pain is a common medical complaint in the United States, and unfortunately, back injuries are very common, both on and off the job. Statistics from the U.S. Department of Labor indicate that back injuries comprise the nation's largest job safety problem, costing American companies up to \$20 billion every year in workers' compensation claim expenses. An additional \$100 billion is lost due to reduced worker productivity, employee turnover, and other indirect expenses associated with back injuries.

The good news is that in many instances these types of injuries can be prevented through training, sound lifting practices, and by reinforcing safe work habits.

Back injuries are usually a result of an attempted lift when the back is in a "risk position." Employees need coaching to avoid improper back positioning when lifting and to learn proper lifting techniques:

Do not bend at the waist to lift. Instead, use the legs to push up the load.

When lifting a load, try to maintain the back's natural "s" curve. This is referred to as the back's "power position." Avoid bending at the waist because this flattens the back, causing loss of strength and flexibility. Remember to use your powerful leg muscles as much as possible.

Avoid twisting while lifting.

NEVER twist the body while lifting. Rather, pivot your feet while lifting. This technique relieves pressure on your back and directs it to your legs.

Do not lift while in an off-balance stance.

Get properly balanced before attempting to lift. Move objects out of the way if necessary. Do not try to slide an item while lifting, as the item could catch on something and cause the body to jerk to a sudden stop. The preferred solution is to rearrange loads for easier access. If it is not possible to get close enough to the load, ask for assistance.

Do not use an extended reaching position, such as when picking up loads that are at an arm's length away from the body.

The effective weight of the load is increased seven to ten times and the stress goes to your back, arms and shoulders. The farther away the load is from your body, the more you alter the back's natural "s" curve. Make an effort to position the load as close to your body as possible. Always avoid lifting in an extended reach position.

Never squat all the way down to lift a load.

Position the load between your legs, use a wide stance with feet farther apart than normal, and use a power lift. Let your legs – the largest muscles of your body – do the lifting work.

In addition, the following tips can help avoid back pain and lifting injuries:

- **Maintain a healthy body weight.** Imagine carrying a 20-pound pack on your back all day and you'll have a better idea of how extra weight takes a toll on the whole body.
- **Strengthen the abdominal and back muscles.** A strong core, which includes all the muscles of the trunk, is important for avoiding injury, whether you're moving boxes or sitting at a desk.
- **Strengthen the leg muscles.** Along with the core muscles, the leg muscles play a vital role in helping you maintain good posture and body mechanics. Strong leg muscles can take much of the burden off the back when you're lifting heavy items.
- **Stay flexible.** Inflexibility in the form of tight hamstrings and a limited range of motion in the trunk can increase your risk of injury or worsen existing pain.
- **Maintain good posture.** Correct posture and body mechanics can help avoid muscle, ligament, and back joint strains and pressure on the discs.