Lifting and Back Injuries Meeting Kit

PROPER LIFTING TECHNIQUE

The majority of lifting injuries are caused by improper lifting technique. Lifting even a light load off the ground puts more strain on the body than many people realize. There is no such thing as a “simple” lift. Any time an object needs to be moved; it requires proper technique.

WHAT EMPLOYEES NEED TO KNOW ABOUT SAFE LIFTING AND HOW IT HELPS THE BACK

The most effective technique is to avoid lifting whenever possible. In many cases, equipment is available that can either fully automate or assist with lifting and handling demands. Examples include hand trucks, dollies, pallet jacks, and forklifts. Using this equipment helps take stress off the back and lessen the risk of injury.

However, there may be times when no other option exists, and your employees must lift objects manually. Ensuring your employees use the proper lifting technique helps reduce the amount of stress on each person’s back.

PROPER LIFTING TECHNIQUE FOR EMPLOYEES

- **Evaluate the Load and the Surrounding Environment:** Determine if the load can be safely handled. Do not attempt to lift a load if it appears too heavy or difficult to handle. The surrounding environment should allow for proper footing and

be free of potential tripping hazards.

- **Position Your Body Close to the Load:** Position your body close to the load with your feet shoulder width apart and one foot slightly ahead of you.
- **Squat Down with Your Back Fully Straight:** Squat down close to the load. If possible, squat until you're "below parallel", meaning your hip joint is at or below the level of the knee joint. Many individuals only squat until their hip is parallel with their knees, creating a 90-degree angle or an L-shape; however, research suggests that dropping below parallel activates the larger muscles in the lower body. When the body is able to rely on these larger muscles, less stress is placed on the other areas of the body.

Ensure that your back is fully straight and not just vertical. To keep your back straight, move your shoulders back and push your chest out more. You can also tuck in your chin to help straighten your back. When lifting a large load, you may bend at the waist in order to keep the load close to your body.

- **Securely Grip the Load:** Grip the load, keeping it close to your body. At this point, if you are still certain that you can safely handle the load and maintain a straight back, you can proceed.
- **Slowly Lift the Load with Your Legs:** Use your body weight to initially lift the load from the ground and then continue to lift by straightening your hip and pushing with your legs. As you lift, avoid twisting your torso. If you must change direction, turn your body by taking small steps and leading with your hips. Moreover, it's important to maintain a straight back the entire time. Bending the back moves the load away from the body. The resulting leverage increases the stress on the lower spine and nearby muscles.
- **Set Down the Load:** Slowly squat in order to lower yourself and the load to the ground.

THREE WAYS THAT PEOPLE TEND TO GET A BACK INJURY FROM LIFTING:

Muscle Injury: The majority of injuries caused by improper lifting techniques are either muscle strains or ligament sprains in the lower back. A muscle strain occurs when weak muscles have been overstretched or torn. A ligament sprain, on the other hand, occurs when the fibrous tissue between bones has been stretched or torn.

Disc Injury: Discs are located between the individual vertebrae of the spine and function as shock absorbers. Discs are at risk of rupturing or, in other words, breaking open. A ruptured disc, otherwise known as a herniated disc, occurs when a crack develops in the wall of a disc and its inner contents are pushed out into the spinal canal. Similar to a bulging disc, a ruptured disc is painful and requires treatment from an orthopaedic specialist.

Joint Injury: Each section of the joint contains facet joints. When these joints have been injured, they stiffen. Many patients describe this stiffness as “buckling” or “locking up.” An injured back joint will also cause lower back pain and potentially refer pain to the buttock or thigh.

CAUSES AND DIAGNOSIS OF LOWER BACK MUSCLE STRAIN

Many lower back strains occur during everyday activities, such as while exercising or at work.

- **Heavy lifting.** Strain from heavy lifting, twisting the spine, lifting from the ground, or an item overhead are common causes of low back strain.
- **Sudden impact.** The impact from jarring motions can place heavy, immediate stress on the low back muscles. For example, high-impact sports such as football and lacrosse place excessive pressure on joints and muscles. The sudden impact from a car accident or a fall is another common

contributor to back muscle injury.

- **Repetitive motions.** Stressful, repeated motions can cause muscles to tighten or tear. Sports such as rowing, golf, or baseball may cause chronic strain due to repeated, forceful motions. Chronic strain may gradually become painful over time, or pain can suddenly worsen if a muscle is already sore and then put under intense stress.
- **Poor posture.** When low back and core abdominal muscles are weak, the lower back becomes more susceptible to injury. Slouching forward puts added strain on the low back muscles.
- **Taking on a new activity.** Starting a new sport or activity may lead to a muscle strain by putting sudden, unfamiliar stress on a muscle or group of muscles.

HOW TO PREVENT BACK PAIN AT WORK

Pay attention to posture. When standing, balance your weight evenly on your feet. Don’t slouch. To promote good posture when sitting, choose a chair that supports your lower back. Adjust the height of your chair so that your feet rest flat on the floor or on a footrest and your thighs are parallel to the floor. Remove your wallet or cellphone from your back pocket when sitting to prevent putting extra pressure on your buttocks or lower back.

Lift properly. When lifting and carrying a heavy object, get close to the object, bend your knees and tighten your stomach muscles. Use your leg muscles to support your body as you stand up. Hold the object close to your body. Maintain the natural curve of your back. Don’t twist when lifting. If an object is too heavy to lift safely, ask someone to help you.

Modify repetitive tasks. Try to alternate physically demanding tasks with less demanding ones. If you work at a computer, make sure that your monitor, keyboard, mouse and chair are positioned properly. If you frequently talk on the phone and type or write at the same time, place your phone on speaker or use a headset. Avoid unnecessary bending, twisting and reaching. Limit the time you spend carrying heavy briefcases, purses and bags.

Listen to your body. If you must sit for a prolonged period, change your position often. Periodically walk around and gently stretch your muscles to relieve tension.

FINAL WORD

The back is the most complicated region of the body and consists of major muscle groups, the vertebrae, multiple facet joints, ligaments that stabilize the spine and the spine itself. Improper lifting technique is known to harm this complex region.