

Are You Protecting Your Back, Fingers and Toes?

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The tasks of employees within a Weights and Measures jurisdiction frequently involve the repetitive handling of heavy weights and other equipment while assuming awkward postural positions in hazardous work environments.

Back safety awareness is necessary due to the prevalence and severity of back injuries throughout business and industry. Backs can be injured by improper lifting, falling and twisting. Back disorders account for a significant amount of human suffering, loss of productivity, and economic burden on compensation systems.

Back disorders can develop gradually as a result of microtrauma brought about by repetitive activity over time or can be the product of a single traumatic event. Because of the slow and progressive onset of this internal injury, the condition is often ignored until the symptoms become acute, often resulting in disabling injury. Acute back injuries can be the immediate result of improper lifting techniques and/or lifting loads that are too heavy for the back to support. While the acute injury may seem to be caused by a single well-defined incident, the real cause is often a combined interaction of the observed stressor coupled with the years of weakening of the musculoskeletal support mechanism by repetitive micro-trauma. Injuries can arise in muscle, ligament, vertebrae, and discs, either singly or in combination.

Back disorders result from exceeding the capability of the muscles, tendons, discs, or the cumulative effect of several contributors:

Contributors to back disorders include the following:

- Reaching while lifting.
- Poor posture – how one sits or stands.
- Stressful living and working activities – staying in one position for too long.
- Bad body mechanics – how one lifts, pushes, pulls or carries objects.
- Poor physical condition of job or work station.
- Poor design of job or work station.
- Repetitive lifting of awkward items, equipment.
- Twisting while lifting.
- Bending while lifting.
- Maintaining bent postures.
- Heavy lifting.
- Fatigue.
- Poor footing, such as slippery floors, or constrained posture.
- Lifting with forceful movement.
- Vibration, such as with lift truck drivers, delivery drivers, etc.

Lifting heavy items is one of the leading causes of injury in the workplace. Lifting improperly can cause serious injury regardless of the weight of the object or the physical condition of the person lifting the object. Always follow proper lifting procedures to reduce the risk of injury.

Proper lifting makes work easier. You need to "think" about what you are going to do before bending to pick up an object. Over time, safe lifting techniques should become a habit. Instituting proper methods of lifting and handling and other safety measures can protect against injury.

We've probably all seen a small person move heavy objects with apparent ease. Safe lifting of heavy items requires training and practice. The secret lies in taking the proper stance and grip.

Being physically ready to do the job can further reduce the risk of injury. A few basic exercises before starting work can warm up the body and prepare it for strenuous work activities.

Wearing appropriate footwear (steel toed shoes or boots) and work gloves to protect your fingers and toes is an important factor to consider during weights and measures inspections.

When employees use smart lifting practices they are less likely to suffer from back sprains, muscle pulls, wrists injuries, elbow injuries, spinal injuries, and other injuries caused by lifting heavy objects.

Following are some basic steps of safe lifting practices:

1. Plan ahead and prepare the area where the object is to be placed. Clear the area of obstructions, debris, and tripping hazards. "Good housekeeping" ensures that you won't trip or stumble over an obstacle. Check that there is enough space for movement, and that the footing is good.
2. Make sure that what you are lifting can be lifted safely.
3. If it is bulky or heavy, get help. Don't attempt the lift by yourself if the load appears to be too heavy or awkward. Size up the load and check overall conditions. You may need to use equipment or ask for assistance from someone to move heavy objects.
4. Move close to the load as you can prior to lifting.
5. Place one foot slightly ahead of the other foot, about 10 to 12 inches. Make certain that your balance is good. Feet should be shoulder width apart, with one foot *beside* and the other foot *behind* the object that is to be lifted.
6. Squat down close to the load by bending the knees. Bend the knees; don't stoop.
7. Keep the back straight, but not vertical.
8. Place hands under or around the load, and get a good grip with palms to keep the load from slipping. (Remember: The palms are stronger than fingers.) Grip the load with the palms of your hands and your fingers. The palm grip is much more secure. Make sure fingers are in a clear position from potential injury.
9. Tuck in the chin again to make certain your back is straight before starting to lift. (There is a difference. Tucking in the chin and look upward slightly straightens the back.)
10. Keep the arms and elbows close to the body while lifting.
11. Use your body weight to start the load moving, and then lift by pushing up with the legs.
12. Gradually lift with strong leg muscles, not the weaker back muscles. This makes full use of the strongest set of muscles.
13. Do not jerk or twist your body while lifting and move your feet while you turn. Lift in a smooth manner but not too slow.

14. Keep the load close to the body throughout the movement of the object. Don't twist your body while carrying the load. To change direction, rotate body position by shifting the feet. Do not rotate the back.
15. Organize the load to avoid lifting too high or low.
16. Watch where you are going!
17. Set the load down gradually by bending at the knees. Don't stoop. To deposit the load on a bench or shelf, place it on the edge and push it into position. Make sure your hands and feet are clear when placing the load.
18. Keep a straight back when lowering the load.
19. Be especially careful when lifting in tight spaces, and protect fingers at all times.
20. If possible, alternate lifting tasks throughout the day so all of the heavy lifting is not done at one time.
21. If necessary, use lifting equipment. If the load is going to be carried more than 10 feet get assistance from a dolly or cart.

Make it a habit to follow the above steps when lifting anything-even a relatively light object.

Back injury prevention training can be helpful for weights and measures employees. A review of the many weights and measures tasks is important to identify potential lifting risks that may cause back injuries. Identify difficult tasks and find resolutions to lessen their risk.

Additional equipment may be needed to lift and carry heavy objects. Weight carts, cranes, loaders, hoists, forklifts, handcarts, dollies, etc. are made for this purpose. All operators should receive proper training on proper operations of lifting equipment. In some instances, equipment may need to be replaced.

Always use proper lifting techniques. Be safe!

Some of the information for this article may be found at the following website:

https://www.osha.gov/dts/osta/otm/otm_vii/otm_vii_1.html Additional information may be found at www.osha.gov

Materials handling: Heavy lifting information may be found at

<https://www.osha.gov/SLTC/etools/electricalcontractors/materials/heavy.html>