

When workers lift and carry materials often throughout the workday, or do so for long periods of time, a constant stress on the back and shoulders develops that can lead to serious muscle or joint injuries. Workers are at greater risk of injury while manually handling materials when they often:

- Handle materials that are heavy or bulky
- Carry materials long distances
- Stoop downward to pick up heavy objects
- Stretch upward while holding materials
- Twist their body when handling heavy items
- Push or pull heavy carts, dollies, or other transport equipment

OSHA Standard 1926.21(b)(2) *The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury.*

OSHA does not have a standard which sets limits on how much weight a person may lift or carry.

- It is important that employers provide time, resources and solutions to employees that will allow them to lift and carry required loads safely.
- It is every worker's responsibility to practice proper lifting techniques on the job and to ask for help when needed.



Lifting and carrying loads heavier than 50 pounds as well as using an improper lifting technique greatly increase the risk of injury. Common injuries that can occur when manual lifting is part of the job:

- Low back pain, strains, and herniated discs
- Neck and shoulder stress injuries
- Shoulder pain and stiffness caused by bursitis and tendinitis
- Tension neck syndrome causing pain and stiffness
- Hand injuries caused by carrying heavy items with sharp edges
- Arm, hand, and wrist injuries like tendinitis or carpal tunnel syndrome

NIOSH recommends that one person lift no more than 51 lbs. when the lifting can be done using the following best practices:

- When you pick up or set down a load, don't reach more than 10 inches away from your body.
- Don't twist your body.
- Lift with your legs, not your back. Keep your back as straight as possible.
- Lift the load using a solid two-handed grip.

When lifting, holding, and positioning materials at work or on a job site you can't always follow these best practices. In that case, the 51 lb. weight limit needs to be lowered for the safety of the worker.



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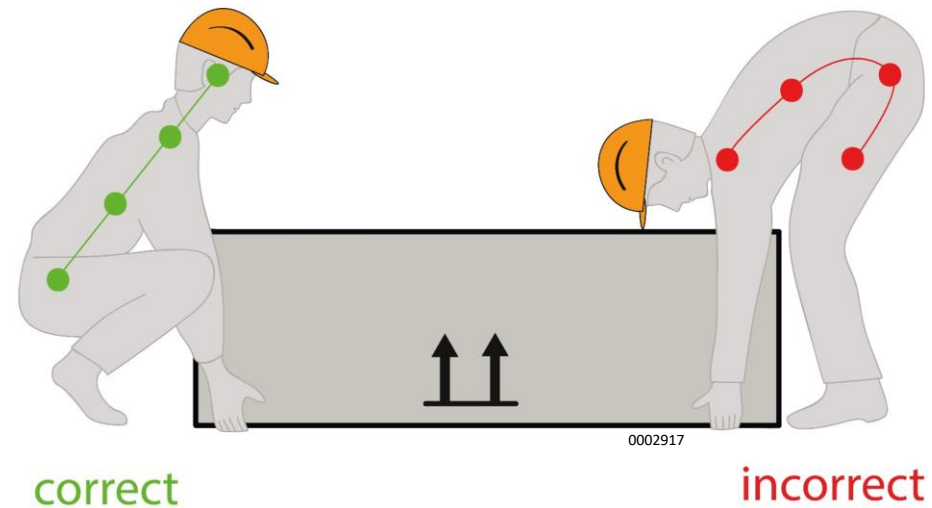
The difficulty with assessing the risk associated with lifting materials at work is that weight alone does not determine the risk for a potential injury. Other factors include:

- whether you bend or twist while lifting or setting items down
- where the load is located when you pick it up (the floor, a work bench, etc.)
- how high an item is lifted
- how close (or far away) from your body you hold the load while lifting
- how often you are lifting heavier items
- how long you hold or carry the load

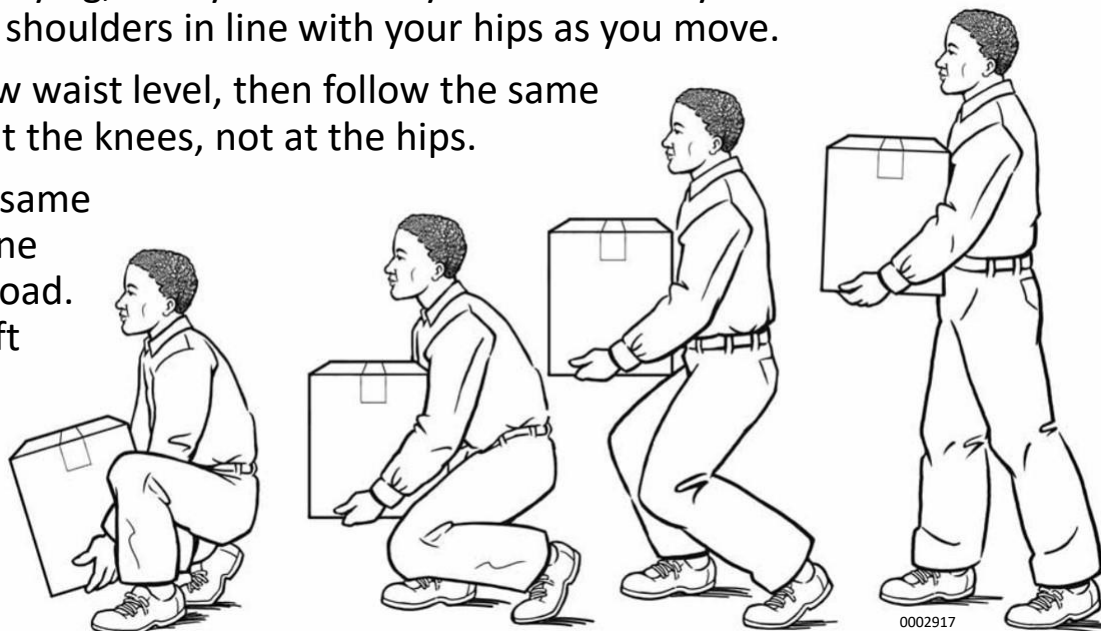
Depending on these factors, a particular item that is safe to lift at one time has the potential to cause injury to the same person another time.

Using a proper lifting and carrying technique every time is essential to injury prevention.

- Do not bend at the waist to lift or set down any load.
- Bending at the waist to lift or set down anything puts tremendous pressure on the vertebrae as the lower back has to support your body weight and the weight of the load.



1. When you are ready to perform the lift, get as close as possible and position yourself so your feet are near the base of the item and center yourself in front of the load. Your feet should be spread shoulder width apart.
 2. Bend at your knees and squat down, keeping your back as straight as possible. Get a good grip. Do not lift or carry items using only 1-2 fingers, use your whole hand to hold.
 3. Grasp the load firmly with both arms and slowly stand up by straightening your legs, pushing with your leg muscles, while maintaining a straight posture with your back. Keep your elbows close to your sides and keep the load close to your body.
- If you must turn while holding or carrying, turn your feet so your whole body turns. Do not turn at the waist. Keep your shoulders in line with your hips as you move.
 - If you must set the item down below waist level, then follow the same procedures in reverse order. Bend at the knees, not at the hips.
 - If you are lifting with a partner, the same safe lifting techniques apply, with one person on either side of the heavy load. Communicate clearly so you both lift and set down at the same time.



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**IF YOU CAN'T LIFT SLOWLY,
YOU CAN'T LIFT SAFELY.**



Apply these safety tips and techniques when the job requires manual lifting and carrying, to prevent potential discomfort, aggravation, strains, sprains, and injury.

- Do not twist your body as you lift. Do not jerk or snatch the load as you lift.
- Use a hand truck, pallet jack, or forklift to lift and transport heavier items.
- Whenever possible, have materials delivered close to where they will be used.
- When lifting one load that is heavier than 50 pounds, use at least two people for the lift.
- When lifting smaller materials that may be tricky to hold onto all together, put them into a box so there's only one thing to lift and carry, and not several items at once.
- If items are packed into heavy boxes or containers, consider repacking them so they weigh less.
- Do not lift and carry more than you can safely handle. Divide the load to make it lighter or ask for help to lift the load.
- Do not ask a co-worker to add more items on top of something else you have already lifted.
- To lift materials that have a smooth, flat surface, consider using a suction device that provides a temporary handle that makes lifting easier.
- Avoid lifting heavy items over your head to attempt to place them on a rack. Instead place these heavier items on a lower shelf to make it easier for future retrieval.
- If you feel fatigued, set the load down and rest. Do not let yourself get so fatigued that you cannot set the item down safely.
- If you begin to lose your grip in a lift, set the load down safely and reassess before trying again.

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