



## Manual Materials Handling

### Before you lift:

#### PLAN AHEAD

- Know what you are lifting and how you will lift it
- Be aware of the weight
- Determine whether it's safe to lift on your own
- Keep work area flat, dry and clear of debris
- Avoid storing anything above your shoulder

#### CHECK YOUR PATHWAY

- Keep the lift pathway clear
- Remove tripping hazards or debris
- Check for wet or slick surfaces

#### USE ERGONOMIC EQUIPMENT

- Use lift assists, forklift, dolly, cart, hand truck or hoist
- Receive proper training before using the equipment

#### GET HELP WHEN NEEDED

- When lifting awkward or heavy loads, utilize a two person lift
- Lift at the same time and keep the load level

#### WEAR PROPER PPE

- If required, wear protective shoes and gloves

##### DO WEAR

- Lightweight, flexible, tear and puncture-resistant clothing.
- Safety boots with toe caps and slip-resistant soles.
- Protective gloves, appropriate for the materials being handled.

##### DO NOT WEAR

- Aprons, coats.
- Clothing with exposed buttons, zippers or loose flaps.
- Heavy duty mitts.



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### Basic lifting technique:

#### When to use the basic lift

The basic lift should be used to lift items that are low to the ground, and heavy enough that they require both hands to help lift and stabilize the load.

#### Steps:

1. Get as close to the object as possible
2. Have feet shoulder width apart, and staggered if possible
3. Bend at the knees and hips
4. Grasp the object and pull it in close to your body
5. Prepare for the lift by tightening your core muscles, looking forward, and maintaining the s-shape curve of your spine
6. Slowly extend your knees and hips (maintaining the s-shape curve in your spine) while keeping the object as close to your body as possible

## Safe lifting zone



### Green Zone

Leverage is better when the load is closer. As the load gets closer to your body, your leverage increases. This means your muscles do less work when you lift in the green zone.



### Yellow Zone

When your elbows move away from your side in any direction, you are working in your yellow zone. The outer limit of the yellow zone is about six inches out from your side. The force on your shoulder and upper back can more than double when your elbow is in this position.



### Red Zone

Stop and think: How can I get my elbows just 6 inches closer? As your elbows move further out into the red zone, the strain moves to the joints of the low back. Some of these muscles have very poor leverage. In fact, in the far red zone, handling a 10-pound load can result in up to 500-pounds of force on your low back.