



ABOUT HANDLING MATERIALS SAFELY

LENGTH: 13 MINUTES

PROGRAM SYNOPSIS:

Our workplace is full of hazards, hazards that can hurt us, or kill us. Controlling these hazards and preventing injuries is the point of our safety and health program. One such hazard is the risk of injury while lifting and transporting materials. Handling materials safely while using proper lifting techniques and maintaining good posture can help prevent injuries. That is the point of our facility's safety policies related to material handling and that is the point of this program. So, pay close attention as we "get to the point" about handling materials safely.

Topics include personal protective equipment, lifting loads safely, safe lifting techniques, carrying and setting down loads, hand trucks, carts and dollies, handling pallets safely and safe use of pallet jacks and forklifts.

PROGRAM OBJECTIVES:

After watching the program, the participant will be able to explain the following:

- What personal protective equipment may be required when handling materials;
- What to look for when inspecting your path of travel;
- How to lift, carry and set down a load safely,
- How to safely use hand trucks, carts and dollies;
- What precautions to take when handling pallets;
- What hazards to be aware of when using forklifts and pallet jacks.

PROGRAM OUTLINE

BACKGROUND

- Handling materials safely, whether by lifting and carrying objects by yourself, with the help of a teammate or by moving them with mechanical devices such as hand trucks and forklifts, doesn't have to be difficult, but it does require effort and a good safety attitude.
- The key to safe material handling is preparing for the task at hand. Make it a point to have a plan for safely lifting the load, carrying it to its destination and placing it properly, regardless of the type of items to be transported.
- Be aware that many material handling injuries occur when employees attempt to impress their co-workers with their strength or neglect to take the time to ask for help or get the appropriate lifting device.
- You should approach each material handling task with the frame of mind that you are going to do it as safely as possible, every time.

PERSONAL PROTECTIVE EQUIPMENT

- Before beginning any task that requires moving or handling materials, make sure to put on any required personal protective equipment.
- For example, make sure you have on the appropriate shoes or boots for the work environment and for the materials to be moved. If steel toes or metatarsal guards are required, be sure to wear them.
- If the material has splinters or rough or sharp edges, leather work gloves should be worn to prevent hand injuries. Cut-resistant gloves and sleeves may be required when handling sharp metal or similar materials.
- Chemical-resistant gloves should be worn when manually handling hazardous chemical containers.
- Be aware that some work areas require eye protection, a hardhat and/or hearing protection, even if you are just passing through.
- Always don the appropriate PPE for any work area into which you enter to pick up or deliver materials.

LIFTING A LOAD SAFELY

- Once you have a lifting plan, know where you are going and have donned any required protective equipment, it's time to lift the load.
- Begin by sizing up the load. You can tilt a small load to one side to determine if it's light enough to lift and carry by yourself.
- Don't try to lift a load that is too heavy or awkward for you to lift without help. Get assistance from a co-worker or use a hand truck or other device designed for transporting materials.
- Larger loads may have labels or tags that indicate its weight and any special handling requirements.
- If you must use a pallet jack or forklift to lift a heavy load, make sure that the weight of the load doesn't exceed the truck's lifting capacity.
- You must also take the stability of a load into consideration. You may need to re-stack loads that consist of multiple items before lifting or moving.

- Loads to be moved on a pallet, crane or hand truck may also need to be rearranged or otherwise made stable to ensure they do not fall while being transported.

INSPECTING YOUR PATH OF TRAVEL

- Once you've determined what method you are going to use to lift the load and made sure the load is stable, make it a point to inspect your path of travel for any hazards you may encounter on the way to your destination.
- Make sure your intended route is free of any slip or trip hazards as well as any obstructions that may impede the equipment you are using.
- When using forklifts, cranes or moving tall loads, make sure to check for overhead hazards.
- It's also important to look for any potential hazards that may exist when passing near fixed objects such as storage racks and doorways. Fingers and other body parts can easily be injured if they strike a fixed object while you are traveling with a load.

SAFE LIFTING TECHNIQUES

- Even if you have decided that you can lift an object without assistance, it is important to follow safe lifting techniques to avoid back injuries.
- If the object has handles or handholds, use them to grip it. You may also tip the load to get a solid grip.
- Stand close to the object with your feet spread about shoulders-width apart. Taking an even wider stance will allow you to get even closer to the load and make the lift easier.
- A wider stance also reduces the angle of knee bend, making it easier to rise up when lifting the load.
- Bend your knees to lower your body close to the load, while keeping your head and chest up to maintain your spine in its natural "S" shaped curve.
- Always avoid bending over at the waist while lifting. Bending at the waist is quite stressful on the components of your spine and when repeated over time often results in injury.
- Instead, get a firm grip on the load and bring it close to your body. To lift the load, straighten your legs to use their strength to lift the load.
- Always avoid any twisting motions while lifting. Twisting while lifting can be very harmful to the discs and other structures of the spine.
- If you need to change directions, first perform the lift, then shuffle and pivot your feet to turn your body rather than twisting.

CARRYING & SETTING THE LOAD DOWN

- Making a point of keeping the load close to your body decreases the stress placed on your lower back. The farther you hold a load from your body, the more force is placed on your lower back.
- While carrying the load, bend your elbows slightly and keep your back in its natural position. Keep the load close to your body as you proceed to your destination.
- Don't allow the load to block your line of sight.
- When you arrive at your destination, use your legs to lower the object straight down by bending your knees.
- Make sure you don't smash your fingers underneath the load when setting it down.

HAND TRUCKS

- Many loads are too heavy or bulky to be transported safely by yourself. When this is the case, in many instances, a hand truck can be used; however, there are some safety practices that should be followed when using a hand truck.
- Standard hand trucks are good for moving boxes and other square-shaped items, but specialty trucks with curved beds and rails should be used to move chemical containers, barrels and other round objects.
- Keep the load stable by placing the heaviest items at the bottom.
- Tilting the load slightly can allow you to put the nose of the truck under the load. Place your foot on the axle to tilt the truck and to prevent the wheels from rolling backwards.
- Grip the handle firmly and if possible, push the truck instead of pulling it while traveling.
- When you reach your destination, support the load with one hand while slowly lowering the truck with the other.
- Be sure to follow safe lifting practices and do not twist your back when unloading the truck.

CARTS & DOLLIES

- Oftentimes a cart or dolly is used to move materials.
- The stability of a cart or dolly can be maximized by distributing the weight of all items evenly when loading.
- Always use safe lifting techniques when loading or unloading one of these units.
- Make sure not to over-stack your items. This not only raises the load's center of gravity, making a tip over more likely, but it may also block the view of your travel path.
- If possible, push the cart or dolly instead of pulling it.
- When traveling, stay focused on the route ahead and move at a speed that allows you to maintain control and navigate around obstacles.
- Be aware that the heavier the load on the cart, the more stopping distance is required.

HANDLING PALLETS SAFELY

- Workers who handle materials as part of their jobs often have to load, move and store wooden pallets.
- Before putting a pallet into service, make sure to inspect it to ensure it is in good condition.
- While two workers can easily lift a pallet together, one person can safely move one alone.
- One method is to tilt the pallet on its edge so that its planks run parallel to the floor. Then, get a secure grip on a plank, bend your knees and lift with your legs.

- Another technique is to simply slide the pallet across the floor.
- Avoid walking or standing on pallets, as many ankle and foot injuries occur during this risky practice. If you can't reach an item without walking on a pallet, have the pallet moved for better access or use an assist tool to bring the object within reach.
- When loading a pallet, make sure to arrange the items so that the center of gravity of the load is in the center of the pallet. This will help keep the load from tipping.
- When not in use, pallets should be stored flat, not on an edge. Pallets stored on an edge have a tendency to fall over and can contribute to an injury.

FORKLIFTS & PALLET JACKS

- Oftentimes loads on a pallet must be moved by a forklift or pallet jack.
- Be aware that you must be trained and authorized by our organization to use any type of material handling equipment. If you are a trained operator, make sure you follow these safe operating practices.
- Operate all workplace vehicles at a slow, safe speed. Stop at all intersections, sound your horn and look in all directions for pedestrians and other vehicles.
- Never raise or lower a load while moving, as this can cause the unit and load to become unstable.
- When traveling, stay focused on the travel path and look out for pedestrians and obstacles.
- Keep the load as low as possible to the floor while the vehicle is in motion.
- Don't block aisles, doorways or stairwells with your vehicle, load or empty pallets.
- Be mindful that the combined weight of the load and the vehicle affects the distance required for the vehicle to stop, so make sure to account for enough space to stop safely.
- When the task is complete, place empty pallets in their proper storage area and return the forklift or pallet jack to its storage location.

TO THE POINT ABOUT HANDLING MATERIALS SAFELY

Review Quiz

Name _____ Date _____

Please provide answers to the following to show how well you understand the information presented during this program.

1. The key to safe material handling is preparing for the task at hand.
 - a. True
 - b. False
2. Some areas require eye, head and hearing protection, even if you are just passing through.
 - a. True
 - b. False
3. When determining a safe path of travel, which of the following items must be considered?
 - a. Slip and trip hazards
 - b. Overhead hazards
 - c. Fixed objects
 - d. All of the above
4. Which of the following is not part of a safe lift?
 - a. Bend your knees
 - b. Get a firm grip
 - c. Hold the load away from your body
 - d. Lift with your legs
5. If possible, you should pull a loaded hand truck rather than pushing it.
 - a. True
 - b. False
6. The heavier a load is on a cart, the more stopping distance is required.
 - a. True
 - b. False
7. When not in use, pallets should be stored on an edge.
 - a. True
 - b. False
8. You must be trained and authorized by our organization to use any type of material handling equipment.
 - a. True
 - b. False
9. When traveling with load on a forklift or pallet jack, you should keep it as low as possible.
 - a. True
 - b. False

ANSWERS TO THE REVIEW QUESTIONS

1. a

2. a

3. d

4. c

5. b

6. a

7. b

8. a

9. a