



4.0 MOVE MATERIALS WITH ASSIST

Facilitator / Leader Tasks Before the Tool Box Talk (TBT):

1. Read through this TBT guide.
2. Walk the job site to find ergonomics examples based on the TBT. If possible, take photos of “safe” and “unsafe” examples at the site to be used during the TBT.
3. Write down discussion questions to ask the group. Fill them in on page 2 “Other Questions.”

Learning Goals: After discussing this training topic, workers will have gained a general understanding of:

- Back injury risks related to material handling.
- Solutions for reducing manual lifting and back injury risks.

TRAINING CARD:

○ MOVE MATERIALS WITH ASSIST

When possible:

Use a **cart** for transporting loads to reduce carrying, take less trips, and to avoid carrying materials on your shoulder.

Help each other to lift large sized or heavy materials when a cart or hoist is not available.



Use **WHEELS:**
dolly, cart, duct lift, pallet jack... & work with a TEAM.

MOVE MATERIALS WITH ASSIST

Keep floors clear of obstacles to minimize trip hazards and make use of wheeled carts/equipment easier.

Plan for the next day's (or week's) work tasks by **talking with each other**. Problem solve where to stage materials and plan for needed equipment to transport heavy or large materials.

Prep your work area by moving objects or debris to minimize trip hazards and clear a path for rolling carts.

TRAINER'S TALKING POINTS:

Why should we talk about moving materials with an assist?

To save your back from wear and tear over time. Working smart now may protect you from feeling back pain and discomfort later.

Back pain can be related to deteriorating discs¹ in the spine. When the discs break down it can result in painful muscle cramps, shooting pain or tingling and numbness down the legs, and in advanced cases, nerve damage, muscle weakness and paralysis of the legs. Back injuries are common, and after an initial strain, the back is more prone to injury. One major way to prevent back injury is by using assists when lifting large or heavy loads.

When possible:

Use a **cart** for transporting loads to reduce carrying, take less trips, and to avoid carrying materials on your shoulder. Use **WHEELS:** **dolly, cart, duct hoist, pallet jack or other device to reduce manual lifting.**

Help each other to lift large sized or heavy materials when a cart or hoist is not available. **Work with a TEAM.** **Keep floors clear** of obstacles to minimize trip hazards and make use of wheeled carts/equipment easier.

Plan for the next day's (or week's) work tasks by **talking with each other**. Problem solve where to stage materials and plan for needed equipment to transport heavy or large materials.

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MOVE MATERIALS WITH ASSIST

TRAINER'S TALKING POINTS

Discussion Question: Describe a situation where you'd like to be able to use an assist to move materials.

- What are some benefits to doing it this way rather than by yourself?
- **Other Questions:** _____

Training Note: Here are examples of hazards in different construction trades. Choose your trade or one that is similar to your group's line of work that can be used as hazards and solutions examples.

| Trade | Hazards | Potential Solutions | Solutions Examples |
|----------------------------|---|---|--|
| Carpenter - Drywall | Carrying a 1/2 " thick 4'x10' sheet of drywall without an assist. | <ol style="list-style-type: none"> 1. Work with a partner to lift drywall weighing more than 50 pounds² or greater than 4'x12' in size. 2. Consider the use of a drywall lift device. |  <p>Panellift® Drywall Lift, www.telproinc.com</p> |
| Floor Layer | Transferring multiple cartons of ceramic tile from a staging area to the installation area. | <ol style="list-style-type: none"> 1. Prep-plan this task by delivering pallets of materials close to the work area to reduce moving them. 2. Use a rolling dolly cart to transfer the boxes and reducing carrying. <ol style="list-style-type: none"> a. Work on technique of transferring the cartons by safely sliding the dolly under a stack of cartons so that manual lifting of the boxes onto the dolly is reduced. |  <p>Magliner 3-Position Hand Truck, www.magliner.com</p> |
| Sheet Metal Worker | Lifting a large, 12 foot round duct piece overhead without an assist. | <ol style="list-style-type: none"> 1. Work with a partner when lifting large, heavy, or bulky objects. 2. Use a duct lift to position the duct piece overhead and hold it in place while the worker installs it. | <p>Duct Lift</p>  <p>www.cpwconstruction.com, www.genielift.com</p> |

References: 1. Grandjean E., Fitting the Task to the Man: A Textbook of Occupational Ergonomics. 4th ed. Taylor & Francis. 1988. 2. United States Department of Labor. Ergonomics eTool: Solutions for Electrical Contractors. Weight of Objects. <https://www.osha.gov/SLTC/etools/electricalcontractors/materials/heavy.html>. 3. Cal/OSHA. Keys to Success and Safety for the Construction Foreman. http://www.dir.ca.gov/dosh/dosh_publications/foremanweb.pdf

Refer to the resources at our website: oshr.im.wustl.edu for more Tool Box TIPS.

Directions for making laminated training cards:

- 1) Print out color copies of this sheet
- 2) **Cut** along the **dotted** lines
- 3) **Fold** each strip of cards in **half** (back to back)
- 4) **Place** folded cards in laminating pouch & slide through laminating machine (6 folded cards will fit in 1 pouch)
- 5) **Cut out cards & punch a hole** in the circle (top left corner)
- 6) **Collect each week's training card on a spring clip** (small carabiner) to keep the series of cards together.

○ W.U. Ergonomics TIPS

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TEAM.

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Prep your work area by moving objects or debris to minimize trip hazards and clear a space for placing ladders and rolling carts.

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