

Manual Material Handling Safety



PRESENTED BY:

MEETING START TIME:

DATE OF MEETING:

MEETING END TIME:

Keep the Conversation Going with a Safety Talk Question:

How Can We Improve
Manual Material Handling on
Our Project?

1. **A Cornerstone of Success** — Safe and productive job sites rely on the effective movement of materials. This involves daily activities that include lifting, lowering, pushing, pulling, carrying, holding, and more. Knowing how to properly handle materials is a key to both worker safety and project success.
2. **Know the Risk** — Improper handling leads to accidents, potentially causing injury or even death, as well as a loss of materials. Musculoskeletal disorders are a major cause of absence from work. Common accidents and their typical causes can include the following:
 - Strain and sprain from repetitive tasks and loads that are too large or heavy
 - Slips, trips, and falls from cluttered walkways and work areas (including reduced visibility)
 - Cuts, lacerations, and bruises from sharp or rough-edged materials
 - Stress from awkward postures that tax the back, shoulders, and wrists
 - Fractures, breaks, or crushing foot injuries from dropped loads, rolling materials, or forklift wheels
 - Caught-in-between, impact, or crushing from improperly stored or stacked materials that may fall or collapse (including on equipment, for example, forklift tip-over)
3. **Staying Safe — Best Practices to Avoid Material Handling Accidents**
 - Training — Ergonomics is the study of efficiency in work environments, including human movement. On construction sites, this includes moving materials, using tools and equipment, rotating tasks, taking breaks, and recognizing systems. Complete a formal ergonomics course and arrive at the project prepared.
 - Personal Protective Equipment — Minimize accident and injury by wearing PPE in good condition that best suits the hazards of the project. This includes high-visibility vests, hard hats, steel-toe or composite-toe boots, resistant gloves, safety glasses or goggles, ear plugs or earmuffs, and respirators.
 - Flow Plan — Familiarize yourself with the path of materials through the job site from delivery to destination. Identify the shortest, safest paths between entry, storage, installation, and disposal.
 - Housekeeping — Remove debris and clean material movement paths and work zones regularly. Keep staging areas clean to avoid lifting and carrying debris, maintain clear material handling paths to avoid slips, trips, and falls, and store materials at waist height to avoid bending and awkward lifts.
 - Minimize Repetition — Deliver materials as close as possible to the destination, avoid moving the same material twice (“double handling”), and rotate workers through tasks to reduce cumulative strain.
 - Posture — Bend from the knees, not the waist, avoid twisting while carrying, and refrain from overhead or floor-level lifts.



- Proper Lifting — Maintain stable footing, lift with the legs (not the back), and keep a neutral spine with the load close to the body.
- Weight Limits — Know when materials are too heavy and require mechanical aid or teamwork. The [Revised NIOSH Lifting Equation](#) is a tool that calculates risk for musculoskeletal disorders, which shows a typically increased risk for loads above 50 pounds.
- Mechanical Aids — For heavy loads, use hand trucks, carts, dollies, forklifts, hoists, etc. To avoid repetitive movement, use conveyors.
- Teamwork — For long, bulky, or cumbersome loads, assemble experienced workers to complete coordinated movements.

Sources:

1. https://stacks.cdc.gov/view/cdc/213234/cdc_213234_DS1.pdf
2. https://www.govinfo.gov/content/pkg/GOVPUB-HE20_7100-PURL-gpo64415/pdf/GOVPUB-HE20_7100-PURL-gpo64415.pdf
3. <https://www.osha.gov/sites/default/files/publications/OSHA2236.pdf>
4. <https://www.cdc.gov/niosh/ergonomics/about/RNLE.html>



Loss Control

Worker Comments / Feedback:

To be signed by all employees, contract workers, clients and others who participated in the safety talk prior to commencing work.

Signatures:

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