

MOVING MATERIAL MANUALLY

Use this article as a safety talk



Whether you're building a house or a skyscraper, construction requires a lot of material. It needs to be moved from the delivery vehicle to its ultimate destination—and someone has to move it. Considering the sheer weight of everything that goes into

a building, it's not surprising that moving the material manually can cause wear-and-tear on the body.

In fact, handling material and equipment manually is a major source of injury in construction, accounting for approximately

35% of all lost-time injuries—injuries that are so severe that they require time away from work. Of these injuries, most occur from overexertion. Many others result from slips and falls or from being struck by or against the material.

The good news is that these injuries are preventable.

Let's look at a common situation. You're building a house. Some heavy or awkward material gets delivered by truck. You or your workers have to get the material off the truck, move it into the house, store it, and then install it. In the following tables, we present common problems you could face at each step, as well as solutions that can prevent injury. Go over these recommendations with your workers and post this article where they can read it. 📖

Off-loading the material from the truck

Problems	Solutions
<p>Overexertion due to</p> <ul style="list-style-type: none"> • heavy weight (e.g., gas generator, plate tamper) • awkward size (e.g., one-piece toilet, bath tub) • reaching (e.g., loads inside the van or in the bed of a pick-up truck—such as rolls of wire). 	<p>Prevent overexertion:</p> <ul style="list-style-type: none"> ✓ Get inside the cab or van and move heavier material near the door or tailgate. ✓ Get help lifting the material out of the vehicle.
<p>Tripping or slipping near the vehicle due to</p> <ul style="list-style-type: none"> • uneven ground • ice or snow • debris and waste (e.g., lumber or packing material). 	<p>Prevent slips and falls:</p> <ul style="list-style-type: none"> ✓ Have the vehicle park in an area free of debris. ✓ Maintain ground conditions at the offload point. ✓ Clear debris from your intended path.
<p>Hazards from equipment (e.g., a crane or a forklift):</p> <ul style="list-style-type: none"> • Being struck by the equipment while unloading material. • Having material fall on you while unloading it. 	<p>Work safely with equipment:</p> <ul style="list-style-type: none"> ✓ Stay clear of the equipment as it hoists and moves the material off the truck. ✓ Communicate with the operator using signals rather than standing close to the equipment.

Moving the material, then storing it

Problems	Solutions
<p>The pathway or access</p> <ul style="list-style-type: none"> • is uneven or poorly-maintained, making it difficult to use carts or dollies • is littered with debris, or it's dark (tripping hazards) • is long (the delivery area is far from the final destination). 	<p>Prepare the path and make it safe:</p> <ul style="list-style-type: none"> ✓ Make sure the delivery vehicle can park as close as possible to where the material will be stored or used. ✓ Before you move the material, check the path and clear up any debris or tripping hazards. ✓ Ensure that pathways and hallways are safe (e.g., even-out ruts on paths, dry up puddles, ensure good lighting in hallways). ✓ Don't overload yourself. Take only as much as you can handle safely. ✓ Use a dolly or other means of mechanical assistance. ✓ If material is awkward or heavy, ask a co-worker to help you.
<p>Problems with material storage:</p> <ul style="list-style-type: none"> • Material is all stored at ground level, making it difficult to pick up. • Material is frozen into the ground or buried in mud. • Material is stored in unstable stacks (material could fall on a worker). • Material is piled too high, requiring a lot of reaching. 	<p>Store material properly:</p> <ul style="list-style-type: none"> ✓ Store material between knee and shoulder height. That makes it easier to pick up, and reduces reaching or stooping. ✓ Store material on skids or blocking to prevent it from getting frozen to the ground or stuck in mud. ✓ Stack material no higher than the shortest length of the stack's base. (For example, if the base of your stack is five feet across and four feet back, the stack should be no higher than four feet.) This practice reduces the risk of tipping.

Installing or using the material

Problems	Solutions
<p>Overexertion due to</p> <ul style="list-style-type: none"> • lifting awkward or heavy material into position • maintaining the same posture, or an awkward posture, for a long time • working at ground level • working while you're reaching • repetitive tasks. 	<p>Take care of your body by</p> <ul style="list-style-type: none"> ✓ getting help with heavy material ✓ using devices or methods that will hold material during installation (e.g., braces, jacks, etc.) ✓ taking regular micro-breaks: get up—even for a minute—and stretch your back, shoulders, and legs when working in the same position for a long time (e.g., laying tile, operating heavy equipment, or drilling overhead). Do this stretching especially if you have to lift something after you've been in the same posture or an awkward posture for a while. ✓ using appropriate work platforms (e.g., elevating work platforms) or special devices (e.g., tool extensions) to minimize awkward postures and reaching ✓ rotating jobs with other workers to reduce repetition.
<p>Being struck by falling or tipping material or equipment:</p> <ul style="list-style-type: none"> • Material falling on a worker before it's secured in position. • Standing too close to equipment used to install material. (The hazard is being struck by the equipment or the material). 	<p>Secure material and stay clear of machinery and equipment:</p> <ul style="list-style-type: none"> ✓ Secure material with stabilizing devices (e.g., jacks) to free your hands. ✓ Keep your distance from machines and equipment. For example, stay clear of a forklift when it's lifting material; use tag lines to place material lowered from a boom truck.