

Material Handling/Placement

The tradition of lifting objects by hand with a straight back and bent knees was a simplistic explanation for complicated body mechanics. That tradition also assumed there was a clean and neat working area with room for moving hands-on material. But you know that simple explanation doesn't always match up with real situations.

Here are basic principles for lifting, moving, and placing that can be applied to whatever your moving task may be.

Prepare for Placement

Before you pick anything up, you must be ready to set it down. This applies to a pencil or a 200-ton boiler in a power plant. So, if you are not ready to set it down, you are not ready to lift it up.

Preparing for placement is the first rule for any kind of material handling. If you are handling material, you do not want to hold it any longer than necessary. You must have a place to set it down.

Plan Your Route

Which of you has ever had a box in your hands or a load on your forklift and discovered a door was locked, the floor was wet, or you had to deal with ramps, inclines, or stairs? Frustrating, wasn't it? And if you managed to get through the job without damage to yourself or the material, it was "better luck than management."

When carrying a load, always look at least 10 feet ahead in the direction you are traveling—and try to visualize the path for at least two corners ahead of you. Create a carrying space ahead of you whether you are walking or operating equipment to move materials.

Walk-behind and ride-on pallet movers must have clear paths and good surfaces to roll across. The wrong surfaces (floors that have cracks, dips, holes, or slippery and bumpy areas) can cause an injury when the pallet mover suddenly stops or shifts its load.

Ramps and inclines must be anticipated when manually or mechanically moving a load. With the exception of walk-behind pallet jacks, pallets should be on the uphill side of the equipment so the material will not slide off. Plan where you will make turns in order to position mobile equipment for the ramp.

Prepare the *Mover*

Whether you are moving materials manually or mechanically, you must be prepared. Warm-up time is important for an engine because it wears out more quickly if put to work immediately after you turn it on. Your muscles also need a warm-up period.

The greatest number of sports injuries occur when athletes do not warm up properly. Speakers warm up their throats and minds, race car drivers warm up their engines and their mental attitudes, and ovens are warmed for proper use. Similarly, we must learn to warm up our muscles before we use them to lift. Without warming up, we are more likely to incur an injury or cause one for someone close by.

Taking proper care of your body is important for lifting tasks in the same way it is necessary to take care of a crane, forklift, or two-wheeled dolly. Mechanical equipment must be properly inspected before every shift, and in the same way, you should ask yourself if you are physically ready to perform a task.

We have inspection checklists to help make sure a forklift is ready to roll efficiently and safely. But the only checklist for your body's condition is in your mind. For best results, use your mental checklist before lifting and moving materials—and keep these thoughts in mind while you're doing it:

- **Keep your body moving.** The longer you stand in one place while lifting, the more likely your muscles are to resist change. Under tension, muscles relax and accept a certain strain limit.
- **Turn your entire body** when you change directions while handling material. Turning only the upper part of your body when handling a load causes severe strain on these muscles.
- **Be sure the load is balanced.** This rule remains the same whether you're handling materials manually or using equipment. Although there are variations in lifting techniques, balance is important no matter what method you use (some people achieve this by lifting equal weights in each hand).

Without balance, your muscles will overcompensate by themselves and suffer from overexertion. This translates into pain and takes a long time to heal properly. A sprained ankle is one type of overexertion injury caused by trying to keep your foot straight when you step on an uneven surface or because your foot is unbalanced and cannot support your body.

In Summary

When you have to move materials from one place to another, don't forget the importance of planning and preparation. Then, during the operation, remember the tips on motion and balance. You'll save yourself a lot of grief that way.

