



The Mechanics of Lifting

How Back Works: Back injuries are the most common type of warehouse accident. That's because, no matter what our duties, we are constantly using our backs—to support our bodies, to bend, twist, sit, stand, and even to lie down. All of these activities put stress on backs. But at no time are backs more vulnerable to injury than when we're lifting. Understanding how back works while lifting can help avoid unnecessary strain and potential injury.

Back Basic: A person's back is made up of moveable bones (called vertebrae) and shock-absorbers (called discs) between each vertebra. These structures are supported by ligaments and muscles that help keep the back aligned in three balanced curves. (Everyone should know that his back is aligned correctly when ears, shoulders and hips are in a straight line.) When back's three curves are not in balance, there is a greater likelihood of both back pain and injury.

Safe Lifting: Safe lifting means protecting back while a person lift. Before he lift anything; he should ask himself, 'Can I lift it alone? Do I need help? Is the load too big or too awkward?'

When someone lift, be sure to bend at his knees, hug the load close to his body and raise himself up with the strong muscles in his thighs. Remember never to twist while lifting. Instead, move one foot at a time in the direction he want to go and then turn with his leg muscles. When one know how his back works, and he use these techniques, he will find lifting is easier, and he can avoid back pain and injury.

Points to Remember...

Back injuries are the most common industrial accident.

Before you lift, ask yourself:

"Does it have to be lifted?"

If so, are there mechanical aides available?"

"Can I lift it alone?"

"Is it too big or awkward?"

"Do I have a clear path and good footing?"

Unsafe lifting... is any lifting that upsets your back's alignment, such as:

- bending at the waist to pick up or put down an object.
- twisting as you lift or put down an object. *When you lift unsafely, your back is forced to work too hard.*



Unsafe Lift
If you bend at your waist and extend your upper body to lift an object, you upset your back's alignment and your center of balance.

Safe lifting... keeps your back in alignment. You do this by:

- bending your knees instead of your back.
- holding the load close to you.
- lifting straight up, then turning the whole body by moving one foot at a time. *When you lift safely, your legs do the work, not your back.*



Safe Lift
If you bend at the knees and hug the object close to you, your back stays balanced, and the muscles in your legs do the lifting.