

# Solutions for preventing back injuries

Ergonomics means doing the work in a way that will reduce your risk of getting hurt by limiting and avoiding overexertion, awkward postures, and repetitive motions.



- How do you plan the job to include the use of equipment to move material instead of moving it yourself?



- How do you raise the work to waist height so your body is in its natural position while you work?



- Take micro breaks of 10 to 20 seconds to arch your back and stretch out the muscles. This will increase blood flow and decrease risk of injury.
- Maintain your tools, so they work well and your body doesn't have to work harder.



- Ask for help or take several trips to carry material instead of trying to carry it all at one time.

# Protect your back and your future



# Construction Ergonomics

**WORK SMARTER, NOT HARDER**

# Back Injuries

## Could this be you?

Kevin was a 31-year-old carpenter who was helping a co-worker move a column form weighing about 175 pounds and was brought to his knees by a sharp pain in his back. The years of working bent over had just caught up with him, leaving him in searing pain unable to move. The next day was no better, and when he finally made it to the doctor he was told he had overexerted his muscles and would need to be off work until it healed. For four months Kevin survived on the money workers' compensation paid, but it was far less than his normal salary. When he finally returned to work, it wasn't in his usual job and to this day he struggles with the possibility of re-injury if he's not careful.

## How would an injury impact your home life?

- Lower income
- Career change
- Loss of quality time with family

## What puts you at risk?

Overexertion of your muscles is the leading cause of time-loss injuries for construction workers. Overexertion occurs because the load being lifted, carried, pushed, pulled, or otherwise handled exceeds the limits of the body. Overexertion can cause tearing or stretching of the muscles, tendons, and ligaments.

Regardless of your physical condition, your back has limits as to how long it can be in a bent position and how much it can carry or lift for prolonged periods.

If you overexert your muscles frequently or for extended periods of time they will become fatigued and prone to injury.

## Activities that increase muscle fatigue include

- Force being exerted during the task
- Repetition of a task during the work day
- Awkward posture of your body during the task

**Bending** overstretches the ligaments and squeezes the discs, causing them to press on different parts of the back, including the nerves. Repeated bending can cause trauma to the back that can lead to life-long pain and discomfort.



**Overexertion** occurs when muscles are fatigued. Lifting and carrying heavy objects, repeating the same motion over and over, or pushing and pulling heavy objects leads to overexertion. This photo (right) is an example of prolonged awkward posture, while applying considerable force.



If you work smarter while doing this

Your back will be healthy enough for you to enjoy this



So what can you do?

## For technical support, call the Oregon OSHA central office:

**Salem Central Office**  
350 Winter St. NE, Rm. 430  
Salem, OR 97301-3882  
Phone: 503-378-3272

Toll-free number in English:  
**1-800-922-2689**  
Toll-free number in Spanish:  
**1-800-843-8086, option 3**

## For a free consultation, call the Oregon OSHA field office nearest you:

Portland	503-229-6193
Salem	503-373-7819
Eugene	541-686-7913
Medford	541-776-6016
Bend	541-388-6068
Pendleton	541-276-2353

[www.orosha.org](http://www.orosha.org)

