

## Caring for Your Back: A Scholarly Approach

**The Bureau of Labor Statistics says that back injuries account for 1 in 5 workplace injuries/illnesses. Back problems also account for many lost workdays. Simple steps to care for the back can prevent injury.**

According to the Department of Environmental Health and Safety at Indiana University-Purdue University at Indianapolis (IUPUI), risk factors for back injuries include:

- **Improper lifting** or lifting objects that are too heavy
- **Repetition** (repetitive motions can lead to muscle fatigue and injury)
- **Poor posture** while sitting, standing, or working
- **Stress**, which leads to muscle tension and tightness and back pain
- **Age** (occasional back pain often starts between ages 30 and 40 and becomes more common as you age)
- **Excess weight**, which puts extra strain on the back
- **Presence of other diseases** such as arthritis
- **Cigarette smoking**, which can increase the risk of low back pain and sciatica

“Back injuries are very painful, difficult to heal, and may cause long-term or permanent disability,” say the experts at IUPUI. “After one back injury, you are more likely to experience another one sometime in your lifetime. It is important to learn techniques and procedures that may help prevent a reoccurrence.”

### Lifting and Your Back

Here's some interesting information from the folks at IUPUI about how lifting can affect the back.

“The amount of force placed on your back under certain conditions can be significant. When bending over to pick up an item, tremendous pressure is put on the lower back.

“If you think of your back as a lever with the fulcrum in the center of the lever, it would take 10 pounds to lift a 10-pound object. With the fulcrum shifted to one side, it takes more force to lift the object.

“The human back operates on a 10:1 ratio. Bending over to lift a 10-pound object puts 100 pounds of pressure on your lower back. When you add in the 105 pounds of the average human upper torso, lifting a 10-pound object puts 1,150 pounds of pressure on the lower back.

“If you were 25 pounds overweight, it would add an additional 250 pounds of pressure on your back every time you bend over.”

## **Injury Prevention**

Preventing back injuries comes down to taking some simple, sensible precautions. For example:

- Learning and using the safe lifting technique
- Using mechanical aids in place of lifting when possible
- Improving posture when sitting, standing, working, and sleeping
- Making workstations back-friendly by adjusting chairs, equipment, or materials to avoid awkward postures and reaching
- Changing positions frequently while working to avoid muscle tension
- Taking mini work breaks, especially when performing repetitive tasks, to stretch and relax muscles for a minute or two
- Minimizing hazards such as bending and reaching
- Managing and reducing stress
- Maintaining a healthy weight (big bellies put big strain on the back)
- Improving overall wellness by eating well, sleeping enough, and getting regular exercise
- Performing exercises to stretch and strengthen the back and abdominal muscles, which support the back