

OPTIMAL HEALTH UNIVERSITY™

Presented by Katie Gravesen, DC

Tips for Safe Lifting

How often do you lift heavy objects? The more you lift, the more opportunities you have to injure your back. After the common cold, back pain is the single most common complaint for which people seek help from a health-care professional. While the causes of back pain are myriad, injuries sustained while lifting are often to blame.

Researchers who study occupational injury point to awkward lifting posture, heavy lifting and repetitive lifting as common triggers of low-back pain. Dr. Gravesen gladly helps patients recover from back injury, but would rather help them avoid getting hurt in the first place. A little prevention goes a long way toward protecting your back.

Get Trained in Technique

Particularly in workplaces that demand a lot of lifting — such as warehouse work and elderly care — training in correct lifting is critical. A study comparing novice and expert materials handlers revealed that the less experienced workers bent their lumbar (lower) backs an average of 12 degrees more and their knees an average of 19 degrees less compared with

their colleagues — angles that leave the lumbar region vulnerable to injury (*Ergonomics* 2010;53:1239-53).

Depending on your job, you may or may not receive formal training in safe lifting technique. Perhaps you only lift heavy items occasionally, or your heavy lifting takes place outside of the workplace — while doing chores, caring for a young child, practicing a hobby or engaging in volunteer work.



The following tips from Dr. Gravesen can help you lift safely. In addition to following these tips, schedule an appointment for a lifting training session at our office. Dr. Gravesen will evaluate your particular lifting circumstances and help you fine-tune a safe lifting technique.

Practice Proper Posture

When it comes to safe lifting, the importance of correct posture cannot be overstated. You have probably heard the common advice to “lift with your knees, not with your back”. It turns out that these are indeed wise words. In one experiment, a group of healthy men lifted a 10 kilogram weight.

Scientists measured electrical activity in their trunk muscles and pressure between bones of their spines. Both the load on their spines and activity in their muscles were significantly higher when the men bent their backs while lifting (*Spine* 2006;31:18-23).

What else do you need to remember for optimal positioning while lifting?

- ✓ Start with your body as close to the load as possible, avoiding reaching out to grasp it.
- ✓ Avoid reaching over your head — use a ladder instead.
- ✓ Do the work of lifting with your arms and legs, not your back.
- ✓ Don't arch or twist your back — keep it straight.
- ✓ Hold the load close to your torso — between your shoulders and waist — for minimal back strain.

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Know Your Load

Numerous trials reveal that not knowing roughly how heavy a load is before lifting influences posture, balance and spinal load. Lifting an object that is heavier than anticipated can throw your body off balance, particularly if you are already in a less-than-optimal lifting posture, and strain the lumbar region (*Arch Phys Med Rehabil* 2002;83:48-59).

It may seem that this would only be a problem when the load is heavier than expected, but researchers have also identified potential hazards when the weight is overestimated. Anticipating and preparing the body for a heavier load alters the impact of the load on the spine and throws the body off balance, risking low-back injury (*Ergonomics* 1997;40:559-75).

Another possible hazard comes from lifting a load that is asymmetric — that is heavier on one side than the other. Researchers have found that people lifting such loads have to quickly shift their trunks to compensate for the unexpected irregularity. This decreases stability of the spine, putting these individuals at risk for hurting their lower backs (*Spine* 2003;28:764-70).

Take Your Time and Take a Rest

Rushing to finish lifting tasks quickly results in less caution and more risk.

For instance, research shows that not taking time to lift carefully is a factor in back injury for nursing assistants working in residential care facilities — workers who often have to lift and move incapacitated patients. Those who reported having adequate time to complete their assigned tasks were 35 percent less likely to be injured on the job, compared with nursing assistants who feel they don't have enough time (*J Adv Nursing* 2011;Epub).

When allowing time to lift carefully, also give yourself time to rest as needed. Fatigued muscles significantly boost the risk of injury. In one investigation, a group of men raised and lowered a 13 kilogram box 50 times consecutively. Researchers ob-



served that the positions of the men's knees, hips, elbows and trunks changed as they became more tired. These changes, they noted, increase strain on the back (*Spine* 2003;28:1810-20).

Exercise

To protect your body from injury during physical labor, the doctor recommends an exercise regimen targeting strength as well as balance and coordination. Resistance training and weight training will build muscle strength, while rock-climbing and several yoga poses are great for improving balance. Ask the doctor to help you customize a program specific for your unique needs.

Chiropractic Care is Key

Regular chiropractic care is vital to avoiding lifting injuries. A healthy spine is crucial to well-being. The spine is constructed of a column of small interlocking bones called vertebrae.

These vertebrae can become misaligned in a common type of dysfunction called **vertebral subluxation**. Chiropractors are trained to identify subluxations, often the cause of back and neck pain, headaches and a wide range of other conditions. The doctor corrects vertebral subluxations with pre-

cise, gentle maneuvers called **chiropractic adjustments**.

Our chiropractic office is also our patients' trusted resource for information on other wellness topics, including nutrition, ergonomics, exercise, stress management and more. The chiropractic lifestyle is a holistic approach to warding off disease and injury by maintaining optimal health.

Already have back pain from a lifting injury, another injury, or an unknown cause? We can help. Chiropractic adjustments correct musculoskeletal damage, decreasing pain and helping you return to your normal daily activities without the dangerous side effects of painkillers. Drug-free chiropractic care should be at the center of any back pain patient's recovery plan.

Protect your back and the rest of your body — call today to schedule a consultation!

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