Information for Patients and Families

University of Colorado Hospital
ANSCHUTZ MEDICAL CAMPUS

UNIVERSITY SPORTS MEDICINE

Low Back Pain

Three out of every four Americans will experience low back pain at some time in their lives. Most back injuries are the result of repetitive trauma to the spine after twisting and lifting improperly. Even though your back may go out when you reach to pick up a pencil, it's not that one activity that caused the problem. It's usually just the straw that broke the camel's back!

KNOW THE BASICS

Your spine consists of vertebrae stacked on top of each other, separated by discs that act as shock absorbers. Think of your discs as jelly donuts, with a gel-like substance inside that cushions the shock of pounding, running and bending. People most commonly experience back pain when they strain the low back muscles or ligaments. Sometimes small tears occur in the discs or the gel substance leaks out and puts pressure on surrounding nerves. You may also experience back pain from a variety of other causes. Your doctor will diagnose the source of your pain to decide upon the most effective strategies for healing.

What can you do to decrease or prevent pain and strain on your back?

Your spine is not straight. It has three natural curves that actually make it ten times stronger! One of the most important things you can do to treat and prevent back pain is to maintain the natural curves of your back while standing, sitting, and working. This is what is meant by good posture and body mechanics. Certain elements of fitness also play an important role in back health. Often when your back is hurting, you are forced into good posture and body mechanics because it's the only way you feel comfortable. Be good to your back! Keep up the healthy habits and exercises taught to you by your doctor or therapist.

What if my pain doesn't go away?

See your doctor if:

- you are getting weaker
- your pain is increasing
- you feel numbness and tingling in your legs or buttocks
- pain radiates into your hip or leg

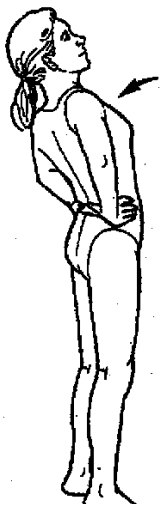
There are a number of treatments that your doctor may suggest including medications, bracing, physical therapy, epidural injections, facet injections, trigger point injections, or surgery.

(OVER)

POSTURE

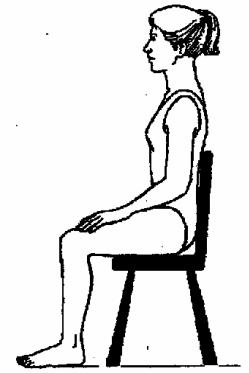
Standing

- When standing, an imaginary vertical line should connect your ears, shoulders, hips, knees, and ankles. Try to pull your shoulders comfortably back.
- Don't lock your knees. Stand with your feet straight ahead or slightly turned out.
- Don't let your stomach muscles sag.
- Maintain a normal (not flat or exaggerated) curve in your low back.
- Remember when your mother said, "Don't slouch! Stand up straight"? She was right!



Back Extension Exercise

Sitting

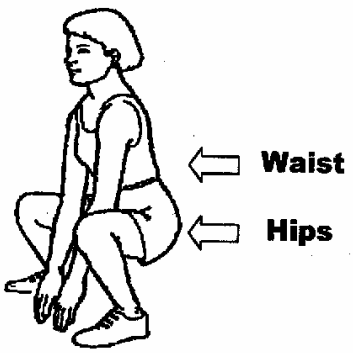


- Sit in a firm, straight-back chair with your buttocks all the way back. Consider using a lumbar pillow or lumbar support to help you maintain your low back curve while sitting or driving.
- Do NOT sit or stay in the same position for prolonged periods of time. Every 15 to 30 minutes stand up and perform a back extension exercise. Stand with your hands in the small of your back, feet shoulder width apart and lean back until you feel a stretch. Repeat a few times. See picture at left.
- Check your chair at work. You should be able to rest your elbows on your arm supports.
- Reclining or leaning back reduces stress on the lumbar spine. *But don't slouch or slump.* If you need to recline, keep the curve in your low back. PRESERVE THE CURVE!
- To get out of a chair, slide forward without slouching, and then stand up.

Sleeping or Resting

- Lie on your side with your legs comfortably bent. A pillow between your knees may make you more comfortable.
- Lie on your back with your legs straight. If that's uncomfortable, try bending your legs and placing a pillow under your knees.
- When you get up from sleeping, roll onto your side first, then push yourself up with your arms.

BODY MECHANICS



- **Keep an upright back.**
  Avoid forward bending whenever possible. If you must pick up something from the ground, even something as light as a pen, use your legs. Bend at your knees and hips and keep your chest upright. Squat down or kneel on one knee to pick something up. Tighten your stomach muscles. Keep a wide base of support. If you must lean forward, bend where your legs meet your trunk (at your hips), NOT at your waist.

- **Holds objects close to you.**
  When you are carrying an object, hold it close to you. When your arms are outstretched you are putting 10 times more stress on your back than when you are working close to your body. For example, squat down to pick up a child, hug him or her, and then stand up together. Or pull a box to the end of the shelf and stand as close as possible to it before lifting it up.
- **Avoid twisting.**
  Twisting puts a lot of pressure on the discs in your spine. Always point your feet in the direction that you're moving. Pivot with your legs instead of letting your back take the stress. For example, when shoveling snow, turn your hips and shoulders from one direction to the other, instead of standing flat-footed and twisting your back.

FITNESS

Improve your Flexibility

Tightness in the following muscles can put a lot of extra strain or your low back:

- hamstrings (back of thigh)
- quadriceps (front of thigh)
- hip flexors (front of thigh)

Performing regular stretching exercises for these and other muscles can reduce pressure on your spine and help eliminate back pain.

Improve your Strength

Strong muscles surrounding your spine can protect your back from injury. A physical therapist can teach you how to strengthen your stomach and your lower and upper back muscles. The PT can also help you improve your leg, buttocks, and arm strength so you don't need to "muscle" things with your back.

Improve your Endurance

Overall stamina and muscle endurance promote back health. Cardiovascular exercise can increase the flow of blood and other nutrients to your back. Follow your doctor's advice about which activities are best for you. You may want to avoid high impact activities such as jogging or aerobics while you're healing from your injury.

Adapted from information developed by the Womean's Sports Medicine Center, Hospital for Special Surgery, New York.

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