



Back Injuries and Proper Lifting Techniques

(Enter as FF-001)

Low back pain is the most common work-related medical problem in the United States and the second most common reason for doctor visits among U.S. citizens, according to the National Center for Health Statistics. It affects more than 20 million Americans and is the leading cause of disability among people ages 19 - 45. It's estimated that at least 80 percent of all Americans will experience some form of low back pain at some point in their lives.

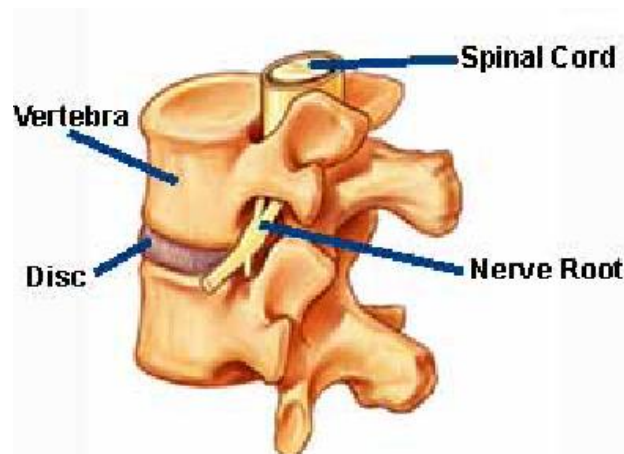
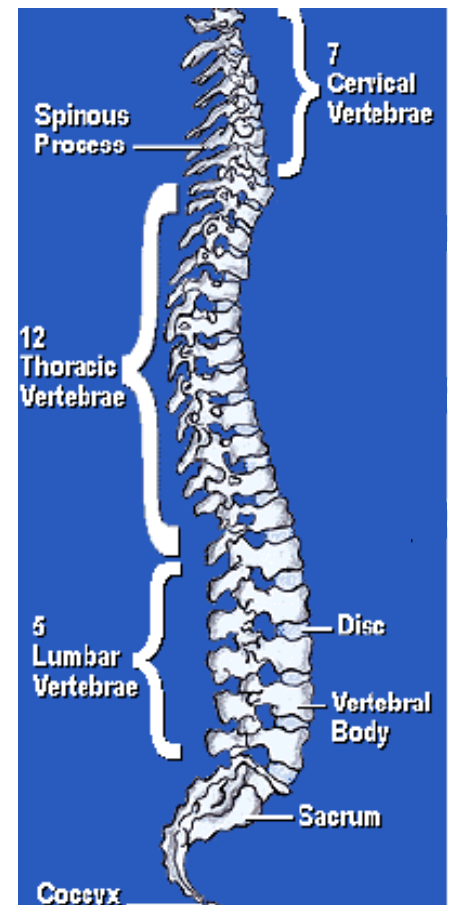
Anatomy

The normal anatomy of the spine is usually described by dividing up the spine into 3 major sections:

- The cervical,
- The thoracic, and
- The lumbar spine.

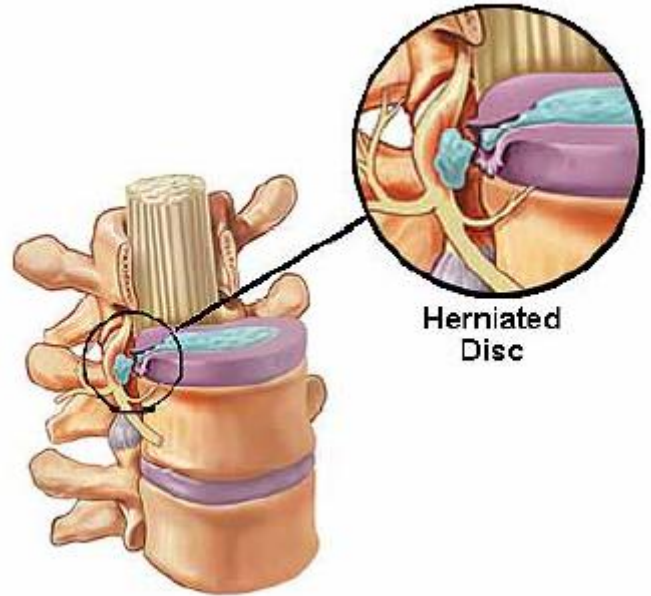
Below the lumbar spine is a bone called the sacrum, which is part of the pelvis. Each section is made up of individual bones called vertebrae. There are 7 cervical vertebrae, 12 thoracic vertebrae, and 5 lumbar vertebrae.

The spine includes vertebrae, discs (cartilaginous pads or shock absorbers), the spinal cord and nerve roots (neurological wiring system), and blood vessels (nourishment). Ligaments link bones together, and tendons connect muscles to bones and discs. The ligaments, muscles, and tendons work together to handle the external forces the spine encounters during movement, such as bending forward and lifting.





Some back injuries involve the “soft tissue” that is the muscle, ligament type injury. A more serious injury occurs when the discs of the spine are involved. In between each of the five lumbar vertebrae is a disc, a tough fibrous shock-absorbing pad. Endplates line the ends of each vertebra and help hold individual discs in place. Excess spinal pressure can cause these discs to be compressed until they rupture. Disc herniation occurs when the annulus breaks open or cracks, allowing the nucleus to escape. This is called a Herniated Disc.



Proper Lifting

Proper lifting is the key to preventing back pain. When lifting, personnel should follow the following procedures:

Start in the best position

Before you lift a load, think through your task. Decide where you'll place the load and how you'll get it there. If an object is too heavy, get some help. When you're lifting an object from the floor, don't lift from a standing position with your waist bent and your knees locked. Instead, plant your feet firmly on the ground, standing as close to the load as possible. Then kneel down, resting one knee on the ground.

Keep your back straight

Lift the object from between your legs and hold it close to your body. You can rest it on your knee or use momentum to assist you the rest of the way up.

Squatting instead of kneeling

You can follow the same procedure from a squatting position instead of a kneeling position, if that's more comfortable for you. Stand as close to the load as possible, positioning it between your knees as you squat down. Keep your back as upright as possible. It may help to tilt one edge of the box up to get a good hold on it.

Let your legs do the work

A solid base of support is important while lifting. Holding your feet too close together will be unstable, too far apart will hinder movement. Your leg muscles are some of the strongest muscles in your body. Pick the object up, from between your knees. Keep the load close to your body and then stand up, using your leg muscles. Keep your back as straight as possible and tighten your abdominal muscles as you rise from the floor





Avoid twisting

When you're standing and ready to move, hold the load close to your body to lessen the strain on your lower back. Avoid turning or twisting while holding the load. Turn by pivoting your feet, not your back. Avoid lifting heavy loads above your waist.

