

Low Back Pain

Your back is made up of bones (the **vertebrae**, or spinal column, which protects your spinal cord) and muscles. The vertebrae are stacked like blocks; the spinal cord runs down the middle, and between the vertebrae nerves extend from the spinal cord to the left and right. The **disks** lie between the vertebrae and form spongy shock absorbers between each bone. Several layers of muscle cover the back, and ligaments and tendons support the vertebrae, supporting posture and giving the body flexibility. Back pain can be caused by problems with the muscles, the bones, or the nerves in the back.

CAUSES OF LOW BACK PAIN AND SYMPTOMS

Often, the cause of back pain is unknown. Back pain can be caused by a strain of the muscle. This type of back pain can vary; it can be dull or sharp and may get worse with sitting, standing, walking, or other movement. Lying down often helps. Muscle pain does not extend down your leg toward your foot.

Sometimes the disk can bulge out, putting pressure on the nerve that is exiting between the vertebrae. Signs of a pinched nerve may include pain that radiates down your leg, numbness, or tingling. More rarely, it can cause problems with controlling your bowels or bladder. Signs of underlying disease requiring immediate medical attention include back pain accompanied by unexplained weight loss or fever.

Arthritis or degeneration of the bony vertebrae can also cause back pain.

DIAGNOSIS

Most back pain is uncomplicated and self-limited. If your pain does not get better in a few days or weeks, if you have fever or weight loss, or if you have signs of nerve involvement, you should call your doctor. A medical history and physical examination will allow the doctor to make appropriate treatment recommendations. Imaging (x-rays, **magnetic resonance imaging [MRI]**, or **computed tomography [CT]**) is not recommended for uncomplicated low back pain. Imaging is used if you have had trauma, evidence of nerve involvement, sometimes for those older than 70 years, or if symptoms are very prolonged. It is also used if your doctor suspects another disease, such as infection or cancer.

TREATMENT

Many treatments are available for low back pain. Often exercises and physical therapy can help. Some people benefit from chiropractic therapy or acupuncture. Sometimes medications are needed, including **analgesics** (painkillers) or medications that reduce inflammation. Surgery is not usually needed but may be considered if other therapies have failed.

PREVENTION

Exercise and good posture can maintain good back health. Your back and abdominal muscles work to maintain posture and need exercise. It is important to use proper technique with strenuous activities such as lifting heavy objects and shoveling snow. This includes bending your knees so you use your legs and buttocks as well as your back to lift, and turning your whole body so you don't twist just your back.

Sources: Agency for Healthcare Research and Quality, American College of Physicians, National Institute of Neurological Disorders and Stroke, American Academy of Orthopaedic Surgeons

Chou R, Qaseem A, Owens DK, et al. Diagnostic imaging for low back pain: advice for high-value health care from the American College of Physicians. *Ann Intern Med.* 2011;154(3):181-189

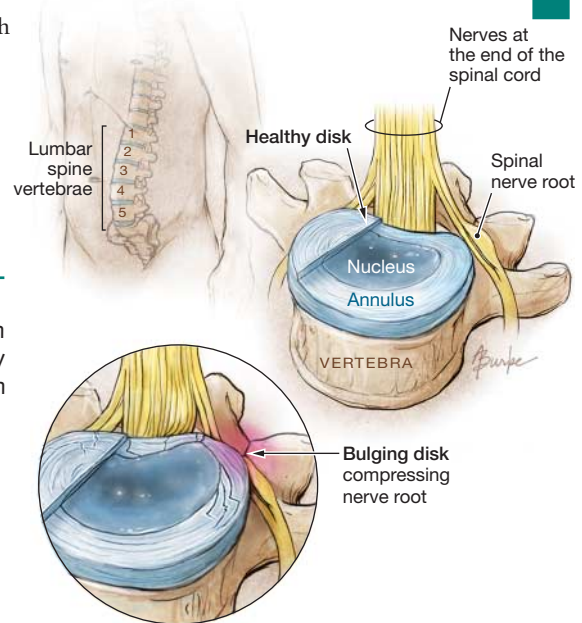
Chou R, Qaseem A, Snow V, et al. Diagnosis and treatment of low back pain: a joint clinical practice guideline from the American College of Physicians and the American Pain Society. *Ann Intern Med.* 2007;147(7):478-491

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