

Back Pain

“Oh my aching back” can signal mechanical and, on occasion, even systemic illnesses that generate very real pain. In fact, back pain is associated with over 60 illnesses, and can result in serious disability and escalating medical bills. The good news is most individuals with low back pain improve within a week or two, and 90 percent of these episodes are resolved in eight weeks.

Fast facts

- Back pain is second only to the common cold as an affliction of mankind.
- Low back pain disables 5.4 million Americans and costs at least \$90 billion in medical and non-medical expenses.
- The diagnosis of low back pain is determined by a medical history and physical examination, and rarely requires expensive or uncomfortable tests.

What is back pain?

Back pain is just that—pain in the back. It can be localized to the lumbar spine or may radiate into the legs below the knee (sciatica).

What causes back pain?

As a rule, most episodes of back pain are caused by mechanical disorders associated with overuse of the back and spine, or the gradual changes associated with aging. In about 10 percent of the cases, back pain is caused by a systemic illness.

The disorders affecting the low back can be divided into mechanical and systemic disorders. Mechanical disorders that can result in back pain include:

- Muscle strains usually related to sustained physical activity such as shoveling snow or prolonged gardening. Acute strain may also occur when completing a common task from a twisted posture.



Most episodes of back pain are caused by mechanical disorders.



- [Osteoarthritis](#) resulting from the narrowing of the intervertebral discs located between the vertebrae of the spine. The adjacent vertebrae grow spurs in response to the increasing pressure placed on them. The bony growths can cause localized pain in the low back or leg pain related to nerve impingement.
- A herniated intervertebral disc may cause back pain associated with muscle spasms, but is more commonly severe leg pain related to pinching of the spinal nerve in the low back. The pain radiating down the leg is called sciatica. Disc herniation may cause a loss of function of the nerve that may include a loss of reflex, sensation, or muscle strength.
- Spinal stenosis is a narrowing of the canal or space that the spinal cord occupies. This narrowing has many causes including bone spurs growing around the spinal joints, thickening of spinal ligaments, or bulging of a disc. The narrowed canal squeezes the nerve roots causing leg pain, numbness, or weakness. The pain is increased by standing and walking, and is relieved with sitting.
- Diffuse Idiopathic Skeletal Hyperostosis (DISH) resulting from excessive bone growth which can affect the vertebra from the neck to the lower back.

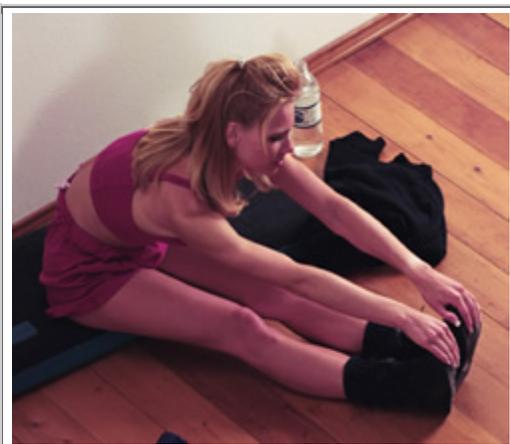
Systemic disorders that can lead to back pain include [ankylosing spondylitis](#), [osteoporosis](#), tumors, and spinal infections.

Who gets back pain?

In short, almost everyone. In fact, approximately 80 percent of the world's population develops this symptom. In the U.S. alone, a [recent study](#) reported that 59 million Americans reported back pain within a three month period.

How is back pain diagnosed?

Typically, only a medical history and physical examination are required to diagnosis low back pain. In some cases, individuals who do not respond to initial therapy may undergo specialized radiographic tests, such as magnetic resonance imaging (MRI) and computerized tomography to screen for additional involvement of soft tissues, ruptured discs, spinal stenosis, tumors or nerve injuries.



Forward bending exercises are helpful for back pain with standing.

How is back pain treated?

Back pain should not be equated with a need for bed rest. In fact, bed rest should be kept to a minimum. Instead, patients should continue their activities of daily living.

While excessive exercise should be discontinued until the pain is relieved, there are exercises that can help reduce pain. These include flexion exercises (bending forward) for pain with standing, and extension exercises (bending backwards) for pain made worse with sitting.

Five- to ten-minute ice massages applied to a painful area within the first 48 hours of pain onset can help relieve pain as can heat, which relaxes the muscles.



Heat should be used for pains that last longer than 48 hours. Over-the-counter pain relievers such as aspirin, acetaminophen and non-steroidal anti-inflammatory drugs ([NSAIDs](#)), are frequently adequate to control episodes of back pain, and muscle relaxants may help those with limited motion secondary to muscle tightness.

Massage therapy has proven helpful for those with chronic muscular pain, and some patients with back pain localized to the lumbar spine have been known to benefit from manipulation of the spine.

A small minority of low back pain patients, particularly those with leg pain due to a herniated intervertebral disc, spinal stenosis, or tumors affecting structures in the spine will require surgery. Surgery for disc replacement is limited to a very small group of individuals with disc damage and no other abnormality.

Living with back pain

In most instances, individuals with low back pain will improve over a two- to six-week period. The goal is to minimize recurrences and, while being in good physical condition does not prevent all back pain episodes, it will make the resolution of those episodes easier. If you smoke, stop. Smoking is a predisposing factor for back pain. If you are overweight, get into shape. Obesity does not cause back pain, but it does make it harder to heal. (No particular diet is known to prevent episodes of low back pain.) Bottom line, pay attention to your body and exercise, eat right and maintain a healthy life style.

Points to remember

- Low back pain is a common problem and rarely associated with a severe illness.
- The vast majority of individuals heal back pain by remaining active and taking pain-relieving drugs.
- About 50 percent of individuals are healed in a week or two; over 90 percent are resolved in eight weeks.

To find a rheumatologist

For a listing of rheumatologists in your area, [click here](#).

Learn more about [rheumatologists](#) and [rheumatology health professionals](#).

For more information

The American College of Rheumatology has compiled this list to give you a starting point for your own additional research. The ACR does not endorse or maintain these Web sites, and is not responsible for any information or claims provided on them. It is always best to talk with your rheumatologist for more information and before making any decisions about your care.

Arthritis Foundation

www.arthritis.org

National Institutes of Health

www.nih.gov



Dunkin MA: [All You Need to Know About Back Pain](#). Atlanta: Arthritis Foundation, 2002, pp 198

Borenstein, D: [Back In Control: A Conventional and Complementary Prescription for Eliminating Back Pain](#). New York: M Evans and Co. 2001, pp 208

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Written by David Borenstein, MD, and reviewed by the American College of Rheumatology Patient Education Task Force

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