

# Back Pain

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## UNDERSTAND the problem

Back pain can range from a dull, constant ache to a sudden, sharp pain that makes it hard to move. It can start quickly if you fall or lift something too heavy, or it can get worse slowly. Acute pain starts quickly and lasts less than 6 weeks. It is the most common type of back pain. Acute pain may be caused by things like falling, being tackled in football, or lifting something heavy. Chronic pain lasts for more than 3 months and is much less common than acute pain.

The lower back, where most back pain occurs, includes the five vertebrae (referred to as L1–L5) in the lumbar region, which supports much of the weight of the upper body. The spaces between the vertebrae are maintained by round, rubbery pads called intervertebral disks that act like shock absorbers throughout the spinal column to cushion the bones as the body moves. Bands of tissue known as ligaments hold the vertebrae in place, and tendons attach the muscles to the spinal column. Thirty-one pairs of nerves are rooted to the spinal cord, and they control body movements and transmit signals from the body to the brain.

## WHO is at risk

Anyone can have back pain, but some things that increase your risk are:

- **Getting older:** Back pain is more common the older you get. You may first have back pain when you are 30 to 40 years old.
- **Poor physical fitness:** Back pain is more common in people who are not fit.
- **Being overweight:** A diet high in calories and fat can make you gain weight. Too much weight can stress the back and cause pain.
- **Heredity:** Some causes of back pain, such as ankylosing spondylitis, a form of arthritis that affects the spine, can have a genetic component.
- **Other diseases:** Some types of arthritis and cancer can cause back pain.
- **Your job:** If you have to lift, push, or pull while twisting your spine, you may get back pain. If you work at a desk all day and do not sit up straight, you may also get back pain.
- **Smoking:** Your body may not be able to get enough nutrients to the disks in your back if you smoke. Smoker's cough may also cause back pain. People who smoke are slow to heal, so back pain may last longer.

Another factor is race. For example, black women are two to three times more likely than white women to have part of the lower spine slip out of place.

## Patient Education Handout

*A service for patients*

## WHAT causes back pain

There are many causes of back pain. Mechanical problems with the back itself can cause pain. Examples are disk breakdown, spasms, tense muscles, and ruptured disks. Injuries from sprains, fractures, accidents, and falls can result in back pain.

Back pain can also occur with some conditions and diseases, such as:

- Scoliosis
- Arthritis
- Spinal stenosis
- Pregnancy
- Kidney stones
- Infections
- Endometriosis
- Fibromyalgia

Other possible causes of back pain are infections, tumors, or stress.

## HOW is back pain diagnosed

To diagnose back pain, your doctor will take your medical history and do a physical exam. Your doctor may order other tests, such as:

- X-rays
- Magnetic resonance imaging (MRI)
- Computed tomography (CT) scan
- Blood tests

Medical tests may not show the cause of your back pain. Many times, the cause of back pain is never known. Back pain can get better even if you do not know the cause.

## WHAT are the treatment options

Treatment for back pain depends on what kind of pain you have. Acute back pain usually gets better without any treatment, but you may want to take acetaminophen, aspirin, or ibuprofen to help ease the pain. Exercise and surgery are not usually used to treat acute back pain.

Following are some types of treatments for chronic back pain.

### Hot or Cold Packs (or Both)

Hot or cold packs can soothe sore, stiff backs. Heat reduces muscle spasms and pain. Cold helps reduce swelling and numbs deep pain. Using hot or cold packs may relieve pain, but this treatment does not fix the cause of chronic back pain.

## Exercise

Proper exercise can help ease chronic pain but should not be used for acute back pain. Your doctor or physical therapist can tell you the best types of exercise to do.

## Medications

The following are the main types of medications used for back pain:

- Analgesic medications: Over-the-counter drugs such as acetaminophen and aspirin or prescription pain medications
- Topical analgesics: Creams, ointments, and salves rubbed onto the skin over the site of pain
- Nonsteroidal anti-inflammatory drugs (NSAIDs): Drugs that reduce both pain and swelling. NSAIDs include over-the-counter drugs such as ibuprofen, ketoprofen, and naproxen sodium. Your doctor may prescribe stronger NSAIDs.

Muscle relaxants and some antidepressants may be prescribed for some types of chronic back pain, but these do not work for every type of back pain.

## Behavior Changes

You can learn to lift, push, and pull with less stress on your back. Changing how you exercise, relax, and sleep can help lessen back pain. Eating a healthy diet and not smoking also help.

## Injections

Your doctor may suggest steroid or numbing shots to lessen your pain.

## Complementary and Alternative Medical Treatments

When back pain becomes chronic or when other treatments do not relieve it, some people try complementary and alternative treatments. The most common of these treatments are manipulation, transcutaneous electrical nerve stimulation (TENS), acupuncture, and acupressure.

## Surgery

Most people with chronic back pain do not need surgery. It is usually used for chronic back pain if other treatments do not work. You may need surgery if you have:

- Herniated disk: When one or more of the disks that cushion the bones of the spine are damaged, the jelly-like center of the disk leaks, causing pain.
- Spinal stenosis: This condition causes the spinal canal to become narrow.
- Spondylolisthesis: This occurs when one or more bones of the spine slip out of place.
- Vertebral fractures: A fracture can be caused by a blow to the spine or by crumbling of the bone due to osteoporosis.
- Degenerative disk disease: As people age, some have disks that break down and cause severe pain.

Rarely, when back pain is caused by a tumor, an infection, or a nerve root problem called cauda equina syndrome, surgery is needed right away to ease the pain and prevent more problems.

## HOW can back pain be prevented

Following any period of prolonged inactivity, a regimen of low-impact exercises is advised. Speed walking, swimming, or stationary bike riding 30 minutes daily can increase muscle strength and flexibility. Yoga also can help stretch and strengthen muscles and improve posture. Consult a physician for a list of low-impact, age-appropriate exercises that are specifically targeted to strengthening lower back and abdominal muscles.

- Always stretch before exercise or other physical activity.
- Don't slouch when standing or sitting. The lower back can support a person's weight most easily when the curvature is reduced. When standing, keep your weight balanced on your feet.
- At home or work, make sure work surfaces are at a comfortable height.
- Sit in a chair with good lumbar support and proper position and height for the task. Keep shoulders back. Switch sitting positions often and periodically walk around the office or gently stretch muscles to relieve tension. A pillow or rolled-up towel placed behind the small of the back can provide some lumbar support. During prolonged periods of sitting, elevate feet on a low stool or a stack of books.
- Wear comfortable, low-heeled shoes.
- Sleeping on one's side with the knees drawn up in a fetal position can help open up the joints in the spine and relieve pressure by reducing the curvature of the spine. Always sleep on a firm surface.
- Don't try to lift objects that are too heavy. Lift from the knees, pull the stomach muscles in, and keep the head down and in line with a straight back. When lifting, keep objects close to the body. Do not twist when lifting.
- Maintain proper nutrition and diet to reduce and prevent excessive weight gain, especially weight around the waistline that taxes lower back muscles. A diet with sufficient daily intake of calcium, phosphorus, and vitamin D helps to promote new bone growth.
- Quit smoking. Smoking reduces blood flow to the lower spine, which can contribute to spinal disk degeneration. Smoking also increases the risk of osteoporosis and impedes healing. Coughing due to heavy smoking also may cause back pain.

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*This handout is provided to you by NetCE and your healthcare provider. For more information, please consult your physician.*