



# Back Pain

## Guide to Good Health

### *Healthy Living Guide*

- ▶ Asthma
- ▶ Chronic Fatigue Syndrome (CFS)
- ▶ Chronic Obstructive Pulmonary Disease (COPD)
- ▶ Coronary Artery Disease (CAD)
- ▶ Depression
- ▶ Hyperlipidemia
- ▶ Hypertension
- ▶ Osteoarthritis (OA)
- ▶ Osteoporosis
- ▶ Type 2 Diabetes
- ▶ Back Pain
- ▶ Chronic Pain
- ▶ Healthy Eating
- ▶ Healthy Pregnancy
- ▶ Rheumatoid Arthritis (RA)
- ▶ Sleep
- ▶ Smoking Cessation
- ▶ Stress Management
- ▶ Weight Management
- ▶ Bariatric Surgery

## What is Back Pain?

Back pain can range from a dull, constant ache to a sudden, sharp pain. Acute back pain comes on suddenly and usually lasts from a few days to a few weeks. Most acute back pain is mechanical in nature – the results of trauma to the lower back or a disorder such as arthritis. It can start quickly if you fall or lift something too heavy, or it can get worse slowly. It is often progressive and the cause can be difficult to determine.

### Overview & Facts

- Back pain is one of the most common medical problems, affecting 8 out of 10 people at some point during their lives. Men and women are equally affected. Nearly everyone at some point has back pain that interferes with work, routine daily activities or recreation.
- Back pain occurs most often between ages 30 and 50, due in part to the aging process but also as a result of sedentary lifestyles with too little (sometimes punctuated by too much) exercise. The risk of experiencing low back pain from disc disease or spinal degeneration increases with age.
- Americans spend at least \$50 billion each year on low back pain, the most common cause of job-related disability and a leading contributor to missed work.
- Back pain is the second most common neurological ailment in the United States — only headache is more common. Fortunately, most occurrences of low back pain go away within a few days. Others take much longer to resolve or lead to more serious conditions.



- **Acute** or short-term low back pain generally lasts from a few days to a few weeks. Most acute back pain is mechanical in nature — the result of trauma to the lower back or a disorder such as arthritis. Trauma may be caused by a sports injury, work around the house or in the garden, or a sudden jolt such as a car accident or other stress on spinal bones and tissues. Symptoms may range from muscle ache to shooting or stabbing pain, limited flexibility, or an inability to stand straight. Occasionally, pain felt in one part of the body may “radiate” from a disorder or injury elsewhere in the body. Some acute pain syndromes can become more serious if left untreated.
- **Chronic** back pain is measured by duration — pain that persists for more than 3 months is considered chronic. It is often progressive and the cause can be difficult to determine.

### Signs & Symptoms

Occasionally, low back pain may indicate a more serious medical problem, like a pinched nerve. People with diabetes may have severe back pain or pain radiating down the leg related to neuropathy. People who have pain associated with the following symptoms need to see a doctor:

- ✓ Numbness or tingling
- ✓ Severe pain that does not improve with rest
- ✓ Pain after a fall or an injury
- ✓ Pain when coughing
- ✓ Pain plus any of these problems:
  - ▶ Trouble urinating or loss of bowel or bladder control
  - ▶ Weakness
  - ▶ Numbness in your legs
  - ▶ Fever
  - ▶ Weight loss - when not on a diet



## *Causes*

Back pain can be due to:

- Sprain, strain, or spasm of a muscle or ligament in the back
- A ruptured or bulging disc putting pressure on nerves in the spinal cord
- Nerve or muscle irritation
- Bone lesions
- Degenerative diseases such as arthritis or osteoporosis
- Viral or other infections
- Congenital abnormalities of the spine
- Obesity or weight gain with pregnancy
- Smoking
- Poor physical condition or poor posture
- Stress
- Poor sleeping position
- Scar tissue created when an injured back heals. Repeated injuries eventually weaken the back.



- Medical conditions such as
  - ✓ Scoliosis
  - ✓ Arthritis
  - ✓ Pregnancy
  - ✓ Fibromyalgia
  - ✓ Spondylolithesis
  - ✓ Spinal stenosis
  - ✓ Kidney Stones
  - ✓ Endometriosis

## *Risk Factors*

Nearly everyone has low back pain sometime. It occurs most often between ages 30 and 50, due. The risk of experiencing low back pain from disc disease or spinal degeneration increases with age.

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.
- Having poor posture.
- 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.



## *Questions to Ask Your Provider*

1. What is my diagnosis?
2. Are there any activities I should avoid to ease the back pain?
3. What treatment options should I consider?
4. Will you prescribe any medications? If so, what are the side effects?
5. Are there special exercises I should do?
6. Will I need surgery in the future?
7. What alternative therapies should I try?
8. What lifestyle changes do I need to make?

## Diagnostic Workup

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
- Computed tomography (CT) scan
- Discography
- Bone Scans
- Magnetic resonance imaging (MRI)
- Blood tests
- Electrodiagnostic procedures (EMG)
- Ultrasound imaging



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.

## Treatment and Care

### 1. Medical

Treatment for back pain depends on what kind of pain you have. 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.
- 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.

The following are types of surgery:

- Discectomy
- Foraminotomy
- IntraDiscal Electrothermal Therapy (IDET)
- Nucleoplasty
- Radiofrequency lesioning
- Spinal fusio
- Spinal laminectomy
- Rhizotomy
- Cordotomy
- Dorsal root entry zone operation (DREZ)
- Vertebroplasty and kyphoplasty



Most low back pain can be treated without surgery. Most patients with back pain recover without residual functional loss. Patients should contact a doctor if there is not a noticeable reduction in pain and inflammation after 72 hours of self-care.

### 2. Pharmacological

- Treatment involves using over-the-counter pain relievers to reduce discomfort and anti-inflammatory drugs to reduce inflammation. The goal of treatment is to restore proper function and strength to the back, and prevent recurrence of the injury. Medications are often used to treat acute and chronic low back pain. Effective pain relief may involve a combination of prescription drugs and over-the-counter remedies.
- Analgesic medications are over-the-counter drugs such as acetaminophen and aspirin or prescription pain medications. These are often used for acute back pain.
- Topical analgesics are creams, ointments, and salves rubbed onto the skin over the site of pain.
- Nonsteroidal anti-inflammatory drugs (NSAIDs) are 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.
- Your doctor may suggest steroid or numbing shots to lessen your pain.
- Traction involves the use of weights to apply constant or intermittent force to gradually “pull” the skeletal structure into better alignment. Traction is not recommended for treating acute low back symptoms.

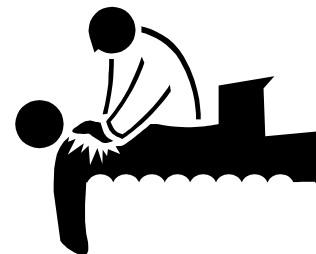
## Treatment and Care continued

### 3. Emotional/Psychological

Biofeedback is used to treat many acute pain problems, most notably back pain and headache.

### 4. Physical

- Although the use of cold and hot compresses has never been scientifically proven to quickly resolve low back injury, compresses may help reduce pain and inflammation and allow greater mobility for some individuals.
- Bed rest is recommended for only 1–2 days at most. Individuals should resume activities as soon as possible.
- Exercise may be the most effective way to speed recovery from acute low back pain and help strengthen back and abdominal muscles.
- You can learn to lift, push and pull with less stress on your back.
- Manipulation. Professionals use their hands to adjust or massage the spine or nearby tissues.
- Transcutaneous electrical nerve stimulation (TENS). A small box over the painful area sends mild electrical pulses to nerves. *Studies have shown that TENS treatments are not always effective for reducing pain.*
- Acupuncture. This Chinese practice uses thin needles to relieve pain and restore health. Acupuncture may be effective when used as a part of a comprehensive treatment plan for low back pain.
- Acupressure. A therapist applies pressure to certain places in the body to relieve pain. *Acupressure has not been well studied for back pain.*
- Massage. Massage might be useful for low back pain.
- Yoga. It can be effective for improving function and reducing pain.
- Interventional therapy. This can ease chronic pain by blocking nerve conduction between specific areas of the body and the brain.
- Ultrasound. This is a therapy used to warm the body's internal tissues, causing muscles to relax.



### 5. Nutritional

- Lose weight if you are overweight
- To have strong bones, you need to get enough calcium and Vitamin D every day.

## Healthy Lifestyle Management

Most patients with back pain recover without residual functional loss, but individuals should contact a doctor if there is not a noticeable reduction in pain and inflammation after 72 hours of self-care. Recurring back pain resulting from improper body mechanics or other nontraumatic causes is often preventable.

To prevent back pain:

- Ask your physician or orthopedist for a list of low-impact exercises appropriate for your age and designed to strengthen lower back and abdominal muscles.
- Use ergonomic furniture and tools to protect the back from injury.
- Exercise often and keep your back muscles strong. Speed walking, swimming, or stationary bike riding 30 minutes a day can increase muscle strength and flexibility.
- Yoga can also help stretch and strengthen muscles and improve posture.
- Maintain a healthy weight or lose weight if you weigh too much.
- Always stretch before exercise or other strenuous physical activity.
- At home or work, make sure your work surface is at a comfortable height for you.
- Sit in a chair with good lumbar support and proper position and height for the task. Keep your 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 your back can provide some lumbar support. If you must sit for a long period of time, rest your feet on a low stool or a stack of books.



### *Healthy Lifestyle Management continued*

- Stand up straight and avoid heavy lifting when you can. When standing, keep your weight balanced on your feet. Your back supports weight most easily when curvature is reduced.
- If you lift something heavy, bend your legs and keep your back straight. Don't try to lift objects too heavy for you. Lift with your knees, pull in your stomach muscles, and keep your head down and in line with your straight back. Keep the object close to your body. Do not twist when lifting.



- Wear comfortable, low-heeled shoes.
- Sleep on your side with a pillow between your knees for better spinal alignment. Always sleep on a firm surface.
- Ask for help when transferring an ill or injured family member from a reclining to a sitting position or when moving the patient from a chair to a bed.
- If you smoke, quit. Smoking reduces blood flow to the lower spine and causes the spinal discs to degenerate.

### *Resources*

- ❖ National Institute of Arthritis and Musculoskeletal and Skin Diseases: [www.niams.nih.gov](http://www.niams.nih.gov)
- ❖ National Institute of Neurological Disorders and Stroke: [www.ninds.nih.gov](http://www.ninds.nih.gov)
- ❖ National Institutes of Health: [www.nlm.nih.gov](http://www.nlm.nih.gov)
- ❖ National Library of Medicine of the National Institutes of Health: [www.nlm.nih.gov](http://www.nlm.nih.gov)