Dealing with low back pain

5 things you should know that may help improve your quality of life

This guide will help you understand the causes of low back pain, how back problems are diagnosed and what treatment options are available for immediate and long-term relief. We're here for you with the education, tools and expertise you need to live the active lifestyle you deserve, free of low back pain.

NOVANT® HEALTH

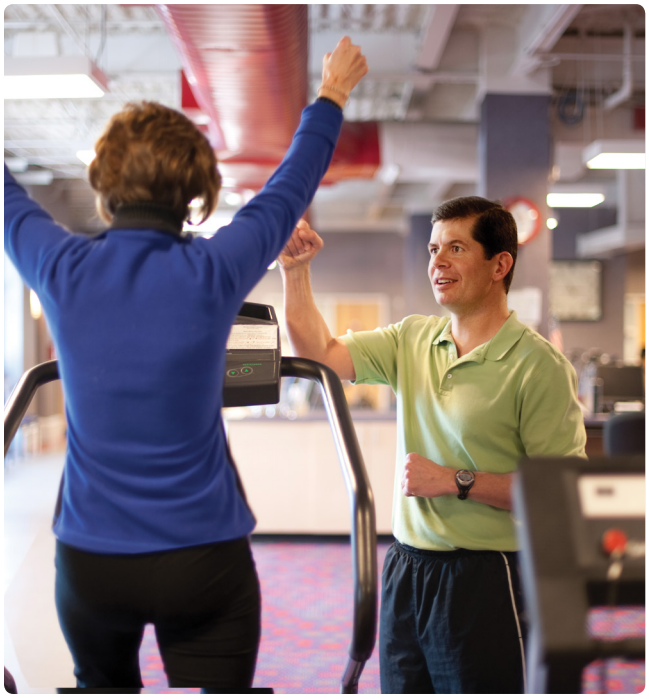
More than 8 in 10 adults experience low back pain

If you're faced with low back pain, you're certainly not alone. An estimated 84 percent of people experience low back pain at some point in adulthood, according to the National Institutes of Health. The causes and effects of low back pain can vary significantly from one person to the next, as can the degree of discomfort — ranging from mild to severe. Pain can begin slowly and gradually, or it can occur suddenly and with high intensity. Some people experience intermittent pain, while others feel constant pain until their low back pain is treated.

While there are many variables associated with low back pain, one thing seems to be consistent: it can make even simple, everyday tasks difficult. The good news is that low back pain often resolves on its own within a few weeks. However, in some cases, low back pain may require medical treatment. This guide provides five important things you should know about low back pain to help you get back to pain-free living.

1 There are many different causes of low back pain

Before we explore the different causes of low back pain, it helps to know more about the specific parts of your spine, all of which can cause pain.



Vertebrae

A series of small bones stacked on top of one another, creating a canal that protects the spinal cord. The lower back, known as the lumbar spine, is made up of five vertebrae.

Intervertebral disks

Flexible disks about a half-inch thick located between your vertebrae. These act as shock absorbers during impact activity, such as walking, running or jumping.

Muscles and ligaments

Muscles provide necessary support and stability for your spine and upper body. Ligaments connect your vertebrae and help keep the spinal column in proper alignment.

Spinal cord and nerves

Carry messages between your brain and muscles by acting as "electrical cables" running through the spinal canal.

Many people experience low back pain as a result of injury, while others experience low back pain as they get older. The aging process causes degenerative changes in the spine. These changes typically start in our 30s and can make us susceptible to low back pain, especially for those who overdo or incorrectly perform activities such as bending and lifting. While there are many different causes of low back pain, we'll cover the most common ones here.

Overactivity

Soreness from overactivity is one of the most common causes of low back pain. The "stiff" feeling in your lower back occurs as muscles and ligament fibers become overstretched or injured. This commonly occurs after reengaging in activities such as yard work or certain sports (e.g. golf, bowling and softball) following a period of not using those particular muscles regularly.

Disk tear

Aging can cause small tears to the outer ring of an intervertebral disk, known as the annulus. While some don't experience pain from a torn disk, others can have pain lasting for weeks, months or even longer.

Disk herniation

Commonly referred to as a "slipped" disk, another cause of low back pain is disk herniation. This occurs when a disk's jelly-like center (nucleus) pushes against the annulus, the disk's outer ring. When a disk is extremely worn or injured, the nucleus can squeeze all the way through, causing the disk to bulge outward toward the spinal canal. This bulging, or "slipping," puts pressure on the sensitive spinal nerves, causing pain.

A herniated disk in the low back can also put pressure on the nerve root leading to the leg and foot, known as the sciatic nerve. The radiating pain typically felt in the buttock and down the leg on one side of the body is referred to as sciatica.

Disk degeneration

Intervertebral disks begin to wear away and shrink during aging. In some people, the disks completely collapse and cause the facet joints in the vertebrae to rub against one another. This results in low back pain and stiffness. This wearing of the vertebrae's facet joints is referred to as osteoarthritis and can lead to additional back problems, including spinal stenosis.

Spinal stenosis

Stenosis is used to describe the abnormal narrowing of a passage in the body. Spinal stenosis occurs when the space around the spinal cord narrows, putting pressure on the cord itself and the surrounding nerves.

As intervertebral disks collapse during the aging process and osteoarthritis begins to develop, the body may respond by growing new bone in facet joints to help support the vertebrae. Over time, this additional bone overgrowth, called spurs, can lead to a narrowing of the spinal canal. Narrowing in the spinal canal can also occur when osteoarthritis causes the ligaments connecting the vertebrae to thicken.

Degenerative spondylolisthesis

Joints and ligaments that keep the spine in its proper position begin to wear over time or through overuse. As they become less effective, the vertebrae begin to move more than they should. Subsequently, one vertebra can slide forward on top of another, and if too much slippage occurs, the bones may begin to press on the spinal nerves, causing a condition known as degenerative spondylolisthesis.

2 It's important to recognize the symptoms and talk to your doctor if pain persists

People can experience the effects of low back pain differently. For some, it may be sudden, sharp and stabbing. For others, it can be dull, achy, or feel like a gradual cramp. The type and degree of pain you experience depends on the underlying cause of your low back pain.

The most commonly reported experiences among those who face low back pain

- Pain is worse when bending and lifting.
- Pain worsens in a seated position.
- Pain worsens when standing or walking.
- Pain comes and goes, and often follows an up-and-down pattern of good days and bad days.
- Pain extends from the back into the buttock or outer hip area, but not necessarily down the leg.
- For those experiencing sciatica associated with a herniated disk, pain is felt in buttock and leg and is possibly accompanied by numbness, tingling or weakness that goes down to the foot. It is important to note that you may experience sciatica without back pain.

Regardless of your age, symptoms or suspected cause, if your low back pain does not get better within a few weeks, or is accompanied by fever, chills or unexpected weight loss, you should see your doctor immediately.

3 An accurate diagnosis is the first step to beating persistent low back pain

It is important to talk to your doctor about persistent low back pain, especially if it doesn't resolve itself after a few weeks of rest. During your doctor visit, you should thoroughly describe your symptoms — when they first appeared, what activity may have triggered them, and whether or not you've experienced those symptoms in the past. After discussing your symptoms and reviewing your medical history, your doctor will examine your back.

This will likely include pushing on different areas of the back to help determine the specific location of your pain. Your doctor may have you bend forward, backward and side to side to look for movement limitations.

During this exam, your doctor may also measure the nerve function in your legs, which could include checking reflexes at your knees and ankles, as well as strength and sensation testing. These assessments help determine whether or not the nerves are seriously affected by your spinal issue.

Diagnostic imaging tests

Your low back pain may require more advanced testing to help determine its cause and severity. These tests may include:

- **X-rays:** Show images of the bones to help determine if you have the most obvious causes of back pain. While X-rays can show broken bones, changes caused by aging, curves and deformities of the spine, they do not show disks, muscles or nerves.
- **Magnetic resonance imaging (MRI):** Creates detailed images of soft tissues, such as muscles, nerves and the intervertebral disks. MRI scans are useful in detecting conditions such as a herniated disk or infection.
- **Computerized tomography (CT):** While X-rays provide a one-dimensional view of your bones, CT scans offer a three-dimensional picture. This enhanced view of your bones provides doctors with additional information to form a diagnosis.
- **Bone scan:** A bone scan may be suggested if your doctor needs more information to evaluate your pain and to make sure the pain is not from a rare problem like cancer or infection. This test is performed by injecting a small amount of radioactive marker into your body through an intravenous line (IV). After a couple hours, a scan is performed to determine if the radioactive marker is concentrated in any region, which could indicate an issue.
- **Bone density test:** Osteoporosis is a condition in which the bones become brittle or fragile from tissue loss. When bones weaken, they're more likely to break. While osteoporosis itself should not create low back pain, spinal fractures caused by osteoporosis can. Doctors can test bone density using bone densitometry, or dual-energy X-ray absorptiometry (DEXA). This test uses a very small dose of ionizing radiation to produce pictures of the bone that show the deterioration.

4 Choosing the right treatment option for you is vitally important

There are a variety of treatment options for low back pain. Their effectiveness can vary by individual, as well as the condition causing the pain. It's important to talk to your doctor about which option is right for you. Treatments for low back pain generally fall into one of three categories: medications, physical medicine and surgery.

Medications

There are several types of medication used to help relieve low back pain.

- Aspirin or acetaminophen can relieve pain with few side effects.
- Non-steroidal, anti-inflammatory medicines, such as ibuprofen and naproxen, work to reduce pain and swelling.
- Steroids, taken either orally or through injection into your spine, deliver a high dose of anti-inflammatory relief.

Physical medicine

Medications are often combined with therapeutic treatments, referred to as physical medicine, to help greatly reduce low back pain or eliminate it.

- **Physical therapy:** Can include passive approaches such as heat, ice, massage, ultrasound and electrical stimulation. Active physical therapy includes stretching, weight lifting and cardiovascular exercises. Physical exercise can restore motion and strength to your lower back.
- **Braces:** While braces may not be helpful to everyone, some people report feeling more comfortable and stable while wearing them. The most common brace is a corset-type brace that is wrapped around the back and stomach.
- **Chiropractic or manipulation therapy:** These approaches offer a range of techniques in many different forms; some patients have relief from low back pain using these treatment types.
- **Traction:** Also known as spinal decompression therapy, this technique is often used with great success, but it lacks scientific evidence to back its effectiveness.
- **Other exercise-based programs:** These may include yoga or Pilates and may be helpful for some patients.

Surgical treatment

While there are viable surgical treatments for low back pain, you should only consider surgery when nonsurgical treatment options are unsuccessful. You should try nonsurgical options for six months to a year before considering surgery. Additionally, surgery should only be considered a viable treatment option if your doctor can pinpoint the source of your pain.

Some types of chronic low back pain simply cannot be treated with surgery; therefore, surgery should not be viewed as a last-resort treatment option. In some cases, patients are not candidates for surgery even though they have significant pain and other treatments have not worked.

Following are two effective surgical treatment options for low back pain. Talk to your doctor to find out if one of these may be right for you.

Spinal fusion

In this procedure, painful vertebrae are fused together, similar to a welding process, allowing them to heal into a single, solid bone. Fusing the vertebrae together eliminates motion between the individual segments. In most cases, a bone graft is used to fuse the vertebrae, while screws, rods or a "cage" help keep your spine stable while the bone graft heals.

Spinal fusion is considered when the source of pain is motion. The premise is that stopping the painful spine segments from moving should prevent them from hurting. Spinal fusion candidates can include people who have spinal instability, a spinal curvature (scoliosis), or severe degeneration of one or more disks.

Spinal fusion surgery is performed through the abdomen, side, back or a combination of these entry sites. There is even a version of the procedure done through a small opening next to the tailbone. No particular approach to this procedure has proven better than another. Full recovery from spinal fusion can take more than a year.

Research has shown that the results of spinal fusion for low back pain can vary — ranging from very effective at eliminating pain to not working at all. It's important to talk to your doctor before considering this procedure.

Disk replacement

This procedure involves removing the problematic disk and replacing it with artificial components, similar to a knee or hip replacement.

The goal is to allow the spinal segment to retain some flexibility and maintain more normal motion. This procedure is done through the abdomen, typically on the lower two disks of the spine.

5 A healthy lifestyle can help reduce your risk for developing chronic low back pain

While it may not be possible to prevent low back pain from ever occurring, there are steps you can take to lower your risk for dealing with long-term pain. Simply stated, we cannot avoid the normal wear and tear on our spines that accompanies aging, but there are things we can do to lessen the impact of low back problems.

Steps you can begin taking today:

Daily exercise

Combine aerobic activities, such as walking or swimming, with certain anaerobic exercises, such as light weight training, to keep the muscles in your back and abdomen strong and flexible.

Proper lifting

Lift heavy items with your legs, not your back. Refrain from bending over to pick things up from the floor. Instead, keep your back straight and bend at your knees.

Weight

It's important to maintain a healthy weight. Being overweight creates added stress on your lower back.

Avoid smoking

Studies have shown that smoke and nicotine cause your spine to age faster than normal.

Proper posture

Consistently maintaining good posture is important for avoiding low back problems in the future. Consult your doctor or a physical therapist to learn how to safely stand, sit and lift.

We can help

If you're experiencing persistent low back pain, the experts at Novant Health Orthopedics & Sports Medicine are here to help. Using advanced diagnostic imaging and the latest treatment options, our team can develop a plan that's right for you. Don't spend another day living with low back pain — your healthy and active lifestyle is waiting for you.

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