

# Find Relief, Regain Your Mobility

HEALING YOUR SPINE WITH  
SPECIALIZED CARE



  
**Advent Health**

# Understanding Back and Neck Pain

In most cases, lower back (lumbar) pain stems from sprains and strains caused by stressful movements, like heavy lifting. This pain may heal on its own, and conservative measures like over-the-counter or prescription medications, targeted stretching exercises, or hot and cold therapy may help, too.

Sometimes, back and neck pain can indicate a more serious spinal issue such as a herniated disc, degenerative condition (spondylosis), sciatica or even a compression fracture. Depending on your needs, you may require more involved medical assistance, or even surgical intervention — both of which AdventHealth can walk you through.

## Personalized Treatment for Chronic Pain

At AdventHealth, we know that back and neck pain from spinal conditions can keep you from living your life to the fullest. Understanding that each person's pain is different, we'll offer you individualized care to help you return to the activities you love.

Our team of spine specialists can work with you to develop a tailored treatment plan with the goal of lasting relief and whole-person healing. This guidebook explains what you need to know about certain spinal conditions and some of the therapies and procedures available. Your doctors can discuss which of these options might work best for you.



# Understanding Your Spine

Your spine is a complex structure that supports the entire body and guards your spinal cord. It has three major sections of vertebral bones, including the cervical, thoracic and lumbar spine, followed by the sacrum and coccyx. The spine has a very distinct, curved design, allowing it to absorb energy from walking and running.

## Cervical Spine

Your cervical spine runs from the base of the skull to the upper chest. Neck pain is a symptom of various cervical spine conditions. Common cervical spine conditions include arthritis, cervical fractures, cervical radiculopathy (a pinched or irritated nerve), cervical spondylosis (degenerative disease), congenital torticollis (twisted neck) and a herniated disc.

## Thoracic Spine

The middle segment of vertebrae is your thoracic spine, which runs from the upper chest to the middle back. It connects to the rib cage and includes twelve total vertebrae. Common thoracic spine conditions include arthritis, fractures, herniated discs and kyphosis (round back).

## Lumbar Spine

One of the most common areas for back pain, the lumbar area is the lower segment of your spine that supports much of your body's weight. It's made up of very large vertebrae. Common lumbar conditions include arthritis, cauda equina syndrome (compression of the spinal nerve roots), bone fractures, herniated discs, lumbar spinal stenosis, sciatica, spondylolysis (a stress fracture) and spondylolisthesis (slipped vertebra).



## Sacrum

This is the part of the spine that attaches to the pelvis. It is comprised of five fused vertebrae.

## Coccyx

Also known as the tailbone, your coccyx is made up of three to five connected segments.

## Spinal Cord

Your spinal cord connects the brain to the peripheral nervous system and functions as the body's main information highway as it runs through each vertebra. Injuries and diseases impacting the spinal cord can result in changes to the strength and sensation in different body parts.

## Discs

Located between each vertebra are flat, round, intervertebral discs that provide flexibility and enable movement while strengthening your spine. Intervertebral discs have a gel-like, spongy interior that allows them to act as spinal shock absorbers. Damage to the intervertebral discs can cause serious pain when part of the disc (or leaked material from within it) puts pressure on a nearby nerve.

## Vertebral Column

The vertebral column is sometimes referred to as the backbone, but it's more than just one bone. It is comprised of 33 individual vertebrae that enclose and protect the spinal cord. Facet joints connect the vertebrae.



# Spine Conditions We Treat

Our spine physicians are experts in identifying, diagnosing and treating a wide range of spinal conditions and disorders, from common to complex.

## Lower Back Pain

Activities such as bending, lifting heavy objects or twisting, and the aging process, can cause wear and tear on your spine, causing recurring back pain. Other causes of lower back pain are slipped discs, degenerative disc disease, stress fractures, spinal stenosis, bone spurs and scoliosis.

## Bone Spurs

Bone spurs (osteophytes) are bony projections along the edges of bones. They can rub against nearby nerves and bones, causing pain. If they form on the spine's vertebrae, they may go undetected for years, but when they limit your range of motion, you might need surgery.

## Bulging Disc

A bulging, ruptured or slipped disc is one that protrudes into the spinal canal. As a disc degenerates, it can herniate (the inner core pushes outward) back into the spinal canal. When needed, surgery can remove the portion of the bulging disc that is pressing against a nerve and causing symptoms.

## Compression Fracture

A compression fracture occurs when the vertebral body, the block of bone in the spinal column, suffers a crushing or wedging injury. When an external force is applied to the spine, such as from a fall, car accident or sports-related collision, the forces may cause the front part of the vertebral body to crush, forming a compression fracture.

## Degenerative Disc Disease

With degenerative disc disease, the fibrous discs that serve as shock absorbers between the spine's vertebral bones become more brittle, losing their sponge-like quality due to moisture loss. As the discs dry out, they flatten, allowing nearby vertebral facet joints to rub against each other, causing pain.

## Facet Disease

With facet disease, also known as spinal osteoarthritis, people most often have other conditions such as degenerative disc disease, spinal stenosis and arthritis in other parts of their spine, contributing to the symptoms.

## Herniated Disc

A herniated disc occurs when the soft center of a disc that separates two vertebrae bulges out through the tough, outer rings of the disc and pushes on a spinal nerve. It can cause radiating pain that travels down the arms or through the buttocks and legs. Herniated discs are quite common and are usually treated non-surgically through medications and physical therapy.

## Kyphosis

Round back, also known as kyphosis, is a condition that causes a hunchback appearance due to an outward curvature of the spine. In children, it is most often associated with a developmental disorder called Scheuermann's disease. In adults, it can be associated with degenerative arthritis, osteoporosis and injuries causing vertebral compression fractures.

## Osteoporosis

Osteoporosis is the most common bone disease and involves the thinning of bone tissue and loss of bone density over time. Osteoporosis occurs when the body fails to form enough new bone, or when too much old bone is reabsorbed by the body, or both.

## Pinched Nerve

A pinched nerve occurs when a nerve is subjected to pressure from surrounding tissues, bones, cartilage, muscles or tendons. This compression irritates the nerve and causes pain, tingling, numbness or weakness. A herniated disc in your lower spine can put pressure on a nerve root, causing pain to radiate down the back of your leg in a condition referred to as sciatica.

## Rheumatoid Arthritis

Rheumatoid arthritis is the most debilitating type of arthritis because it can cause deformity and disability. In the spine, this arthritis usually affects the joints in the neck, or cervical spine. Some of the symptoms of rheumatoid arthritis include headaches, neck pain, burning sensations, weakness in the arms and legs and fatigue.

## Sciatica

Sciatica is a common spinal condition that often develops in adults ages 30 to 50. It occurs when a herniated disc or bone spur comes in contact with a spinal nerve root, causing pain that travels from the lower back to the buttocks and then down into the leg. Sciatica usually happens due to the natural aging process, when the soft interior portion of a vertebral disc leaks out and puts pressure on a nerve.

## Scoliosis

Scoliosis refers to an abnormal curvature of the spine that occurs as a child grows. In some cases, scoliosis may occur due to a spine infection or a neuromuscular disorder such as cerebral palsy. Instrumentation or materials such as plates and screws can be used along with bone grafts to stabilize the spines.

## Spinal Stenosis

Spinal stenosis is the name for any condition in which the spinal canal is narrowed and puts pressure on the spinal cord and nerves. It can occur as part of the normal aging process or could be due to other spinal conditions or diseases. Symptoms can include back and neck pain, radiating pain that goes down one leg, and numbness in the extremities. Surgery may be recommended conservative options aren't successful.

## Spondylosis

Spondylosis refers to the wear and tear that the spine endures as part of the aging process. Treatment for spondylosis depends on the severity of your condition but may initially involve nonsurgical methods such as hot and cold therapy, physical therapy and medications. But if it causes neurologic issues, spinal decompression surgery may be considered.

## Spondylolisthesis

Spondylolisthesis happens when a vertebral bone slips over the top of the bone below it. Excessive wear and tear on the spine can cause it, along with traumatic injury or bone disease. Some people don't have any symptoms, while others have lower back pain, persistent stiffness and leg muscle weakness. Wearing a back brace, taking pain medications and doing physical therapy can help, and when necessary, surgery can be helpful.



## How to Avoid Back Injuries and Re-Injuries

It's never too late to protect your spine and prevent aggravating old injuries. Two of the most important ways to do so are to do aerobic exercise regularly, which strengthens core muscles in your back and abdomen, and to practice correct posture, making ergonomic adjustments to your workspace, if necessary.

You can also:

- Avoid lifting objects that are heavier than 25% of your body weight.
- Avoid repetitive exercise movements that can lead to strains and sprains.
- Buy a supportive mattress or try a different sleeping position.
- Eat anti-inflammatory foods and vitamin D to keep your bones strong.
- Find ways to loosen your back and neck muscles at the end of the day.
- If you smoke, get the help you need to quit.
- Talk to your doctor about over-the-counter medications for pain and inflammation.
- Treat strains and sprains with rest, ice, compression and elevation.





## Treatment Options Tailored to You

At AdventHealth, your treatment plan is created to match your unique needs. After learning your symptoms and diagnosing their cause, our team develops a specialized treatment plan to reduce pain and prevent further injury, which may include:

- Acupuncture
- Exercise programs
- Epidural steroid injections
- Ergonomic assessment and modifications
- Intrathecal pain pumps
- Nerve blocks
- Physical therapy
- Trigger-point injections
- Spinal cord stimulation
- Spinal surgery

To meet your needs, we'll focus on the least-invasive and most-effective treatment methods, along with specialized patient education. If you need surgery, our pre-surgery classes help you better understand how to prep for the procedure, reduce pain and recover quickly.





## Is Surgery Right for You?

At AdventHealth, your team can offer nonsurgical and conservative approaches for chronic back and neck pain before considering surgery. But if these methods aren't successful, it may be time to consider your surgical options.

Today, the minimally invasive and robotics-assisted procedures offered at AdventHealth allow for much smaller incisions, less time spent in surgery and the hospital, a shorter recovery period and potentially better outcomes than traditional techniques.

After a careful review of your symptoms and previous treatment methods, you and your care team can decide whether surgery is right for you.

# Surgical Options to Help You Feel Your Best

At AdventHealth, we offer a variety of spine surgeries, many of which are minimally invasive and robotics-assisted, meaning less pain and a faster recovery for you.

## Discectomy

A discectomy relieves the pressure on nerve roots or the spinal cord (usually in the lower back) by a herniated disc or bone spurs. A surgeon removes all or part of the problematic disc through minimally invasive procedures like arthroscopic surgery and microdiscectomy — both of which involve very small incisions and quick recovery times.

## Kyphoplasty or Vertebroplasty

Kyphoplasty, usually an outpatient procedure, relieves chronic pain from a vertebral compression fracture. In this procedure, a surgeon inflates a balloon within the collapsed portion of bone to restore the vertebra to its normal height. A special cement is placed in the bone, which provides permanent stability.

## Laminectomy

A laminectomy creates a sort of window in the roof of the spinal canal to remove material that's pressing on the spinal cord. This minimally invasive procedure avoids harm to surrounding muscle tissue and allows for quicker healing. In cases where an entire disc must be removed, the laminectomy may be combined with a spinal fusion to stabilize the spine.

## Spinal Fusion

In a spinal fusion, two or more vertebrae are permanently fused together to reduce the symptoms of spinal compression (discs rubbing together) and stabilize the spine. The fusion may use instrumentation — specialized hardware such as screws, rods or wires — or a bone graft placed between discs. Fusion surgeries are often done with other procedures, like discectomy, to stabilize the spine.





## Take the First Step Toward Relief

**At AdventHealth, you'll have access to some of the most advanced treatments available in the country, and a dedicated team will walk you and your family through each step of treatment. We're here to help you feel whole again – in body, mind and spirit.**

This guide is provided to the general public to disseminate health-related information. The information is not intended to be used for diagnosing or prescribing. Please consult your physician before undertaking any form of medical treatment and/or adopting any exercise program or dietary guidelines. AdventHealth complies with applicable federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability or sex.

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