

BACK & NECK PAIN TREATMENT GUIDE

Back and neck pain can become a major disruption to your life. It's the second most common reason people visit their family doctors. Nearly 2 percent of U.S. workers miss time on any given day because of it.

Vanderbilt University Medical Center developed this guide to answer common questions about back and neck pain. This guide is meant to provide helpful information about the types of pain, causes, diagnosis and treatment. If you have specific questions about your care after reading this, please discuss them with your doctor. We hope this is a valuable resource for you on your journey toward better health and well-being.

Types of Pain

Acute Pain

When a brief episode of pain comes on suddenly, it's known as acute. Neck pain may spread and be felt in the back, shoulders or head. Back pain may spread to the buttocks, thighs or knees. Acute pain shouldn't last more than a few weeks.

Chronic, Persistent Pain

Back or neck pain that persists beyond four to six weeks requires further medical evaluation. This pain is often related to the spinal joints, discs or supporting muscles. In rare cases, cancer or an infection may be responsible for chronic back or neck pain.



What Causes Back and Neck Pain?

Most acute back or neck pain has a mechanical cause, such as a strain or sprain. Mechanical back pain is generally more noticeable when flexing the back or lifting heavy objects. Many sufferers also experience back or neck spasms.

Because the lower back bears so much weight, low-back strains and sprains are common. One cause of low-back pain is injured support muscles. You can injure these muscles and connective tissues by lifting or carrying heavy objects. Pushing and pulling may increase the risk of a low-back injury.

Both back and neck pain may also result from long periods in an uncomfortable position. This may be acute or chronic and can include:

- Poor posture
- Standing or sitting in one place for a long time
- Sleeping positions
- Sleeping with a pillow that's too high or too firm
- Carrying a heavy object to one side

Weaker muscles in the back or abdominal can also become prone to injury from lack of exercise.

Other causes of low-back pain include:

- Being significantly overweight
- A "slipped" disc pressing against the nerve
- Thinning of bones (osteoporosis)
- Breakdown of joint tissues or bones (osteoarthritis)
- Fibromyalgia, an illness that causes achy, tender muscles
- Trauma from a prior injury, accident or fall
- Serious illness such as cancer or infection

Other serious medical conditions may cause chronic, persistent pain:

Cervical radiculopathy: Problems with bones or tissues in the neck may irritate or press on nerves. This can cause pain in the shoulders, arms and hands.

Lumbar radiculopathy (sciatica): Irritation or pressing on nerves in the low back may be felt in the hips, buttocks, legs and feet.

Spinal compression fractures: Bones in the spine can form small breaks. They occur most commonly around the lower and middle back. These cause the bones to press on each other. This may result in severe back pain.

Degenerative disc disease: The tissue between the bones may diminish and offer less support and cushioning with time, wear and tear.

Herniated discs: The slippage of the cushioning between the bones in the spine is a common back and neck injury. This causes severe pain and other problems in the arms or legs.

Myelopathy: When unusual pressure is placed on the spinal cord, it may result in lost nerve function. The effects can range from mild tingling to severe weakness and may worsen over time.

Metastatic cancer: Cancer can develop in or near the spinal cord or within the bones. It can also spread through the spine and lead to many serious complications.

Post-laminectomy syndrome: Chronic pain can develop when certain types of back surgery don't help. This is also known as "failed back syndrome."

Scoliosis: This curve of the back occurs in about 2 percent of the population and sometimes causes pain.

Spinal stenosis: Narrowing of the openings where the spinal cord passes through the spinal column can put pressure on nerves. This most commonly affects the neck or low-back areas.

Spondylolisthesis: Damage to bones or joints may cause the bones in the spine to slip forward and distort the nerves or spinal cord. This may be because of a condition from birth or accumulated stress on the spine.

Sometimes back and neck pain can happen without a known underlying cause.

Diagnosing Back and Neck Pain

Finding the cause of your pain typically begins with a physical examination and a careful review of your medical history. Your doctor may ask questions to learn more about:

- Your lifestyle
- When your pain began
- Where it's located
- How it has affected your daily life
- Whether it has responded to any medical treatment
- Your medical, surgical, family and social history

Mild strains and sprains are usually diagnosed through a medical history and physical exam. But your healthcare provider may order an imaging study to assess more severe pain. If your symptoms or the exam suggest a possible infection, cancer or a pinched nerve, you may need more tests. Advanced tests such as magnetic resonance imaging (MRI), electromyography (EMG) and myelography (CT myelogram) may be needed in rare cases.

Treating Back and Neck Pain

Some patients can relieve their pain with over-the-counter (OTC) medicine and rest. But if it isn't getting better fast, other treatments are available. For moderate to severe strains and sprains, treatment often occurs in two phases.

The first phase treats your pain and spasms through rest, compression (pressure) and ice packs, especially in the first 24 to 48 hours after the pain begins. An OTC nonsteroidal anti-inflammatory (NSAID) such as ibuprofen or naproxen may help with pain and swelling.

In the second phase, you may return to a near-normal schedule. This helps to recover fast. Most people see full recovery within two weeks. If your symptoms continue, you may need more treatment.

Bed rest is rarely recommended for most spine conditions.



Physical Therapy

You may be able to manage your pain with medicine and physical therapy. Physical therapy that focuses on the structures around the back and neck can speed up recovery. This may help you return to work and life activities sooner.

It's important to work with a spine-oriented physical therapist trained in an exercise approach. Most exercise programs to treat back and neck pain can be done at home. It shouldn't need special equipment.

Interventional Treatments

Chronic, persistent and disabling pain may need more intensive treatments. These may include:

Epidural steroid injections: This is a minimally invasive injection near the spinal cord to reduce inflammation. It may be used for back or neck pain. This may help with pain from conditions such as herniated discs and spinal stenosis, which cause swelling of the nerves.

Sacroiliac joint steroid injection: This is a minimally invasive injection between the hip and the base of the spine. This may help with arthritis pain where the spine and hip bone meet.

Fluoroscopically guided hip injection: This injection of drugs to numb and reduce swelling is an outpatient procedure. It can provide relief to patients with arthritis of the hip joint.

Surgery and Minimally Invasive Surgery

For some patients, only surgery may help with pain. Spinal surgery is often delicate and complex. However, an experienced spine center can offer the latest minimally invasive techniques. These help patients recover faster with less pain.

Minimally invasive spine surgery (MISS) uses smaller cuts on the bones. This reduces damage to nearby muscles and tissues. A surgeon makes a small cut to expose part of the spine. They use small tools, including a tiny camera or microscope and light, to make the repairs.

MISS may be performed for conditions including:

- Herniated disk
- Spinal stenosis
- Spinal deformity such as scoliosis
- Spinal instability
- Spondylolysis
- Broken vertebra
- Spinal tumor
- Infection in the spine

Minimally invasive surgeries may include:

Cervical posterior foraminotomy: Parts of a bulging or diseased disc can press on nerves. That can cause radiating arm or neck pain. This procedure removes bone or parts of the disc pressing on the nerves.

Kyphoplasty: To treat small breaks from osteoporosis, a doctor inserts a needle through the back into the bone. Then the doctor inflates a small balloon to help the bone regain its normal shape and uses bone cement for long-term support. This may take less than an hour and requires no stitches.

Lumbar disc microsurgery: This removes the bulging portion of the disc through a small cut. It's 95 to 98 percent effective for sciatica from pressed nerves.

Lumbar laminectomy: This relieves pressure on the nerves in the spine. It's often used to relieve pain from narrowing of the spinal canal.

Minimally invasive TLIF: Minimally invasive transforaminal lumbar interbody fusion (TLIF) removes bone and the disc causing back pain. It stabilizes them with screws through a small cut or tube. This relieves pressure on the nerves in the lower spine.

Spinal fusion: The surgeon permanently joins two or more bones in the back. As a result, they grow as a single, solid bone. This is commonly done in the neck or low back to correct a wide range of problems.

Lateral lumbar interbody fusion: This treats leg or back pain from degenerative disc disease. This is done through the patient's side, avoiding major muscles. It can be an outpatient procedure.

Other treatments are available to help patients with back and neck pain. These depend on the cause and severity of pain. As you begin to explore treatment, look for a healthcare provider experienced in MISS who can provide the most options.

Why Vanderbilt Spine Center?

Vanderbilt Spine Center brings together top specialists to personalize care for each patient. From initial diagnosis to physical therapy to treatment, your care benefits from a team-based approach and providers who work side-by-side from different specialties. That's the advantage of a complete center dedicated to your spine care.

A full spectrum of care: We offer a full range of nonsurgical treatments. These include physical therapy, medications and injections, in addition to minimally invasive and traditional surgery.

A team of experts: Our team includes physical medicine and rehabilitation (PM&R) physicians, interventional pain experts, neurosurgeons, orthopedists, orthopedic surgeons, oncologists, anesthesiologists and other specialists. They work together to help you ease or eliminate pain and improve your quality of life.

National recognition: *U.S. News & World Report* considers Vanderbilt University Medical Center among the top-performing hospitals in the country for neurology and neurosurgery. [BlueCross BlueShield](#) names us a Blue Distinction Center for high-quality spine surgery care. [Becker's Healthcare](#) lists us among 100 hospitals with top neurosurgery and spine programs.

Telehealth services: We offer our patients specialty follow-up care through a simple video consult with their local doctors. You always have access to a Vanderbilt specialist close to home.

Long-term follow-up: Unlike any other spine center in the region, the Vanderbilt Spine Center carefully tracks how our patients are doing years after surgery. We use this information to improve how we care for patients every day.

Superior outcomes: Year after year, our patients report [significant improvements](#) in pain, general health and quality of life.