

Acute Back Pain

A plain-English guide for you and your family

WHAT IS HAPPENING

Your spine is a tall stack of backbones (vertebrae) with squishy cushions (discs) between them, held steady by small sliding hinges (facet joints), muscles, and tough straps (ligaments). When you lift something heavy, twist the wrong way, or bend awkwardly, you can pull a muscle or ligament, or squeeze a disc out of place (herniation), and that causes sharp or aching pain in your lower back. More than 85 out of 100 cases are simple mechanical pain: it hurts more when you move because movement presses on the injured part, and it feels better when you rest. Your body tries to protect the hurt area by tightening nearby muscles into a hard knot (spasm), which is why your back feels stiff and locked up. The good news is this kind of pain usually goes away on its own in a few weeks as the tissue heals. But a small number of back pain cases mean something serious is wrong—a broken backbone from a fall or weak bones (osteoporosis), an infection in the spine (abscess or bone infection), cancer that has spread to the backbone, or pressure on the bundle of nerves at the bottom of your spine (cauda equina syndrome). Warning signs include new back pain if you are over 50, fever, losing weight without trying, pain that wakes you up at night, numbness between your legs or on your buttocks (saddle area), losing control of your bladder or bowels, legs getting weaker, a history of cancer, using drugs through a needle (IV drugs), or taking steroid pills for a long time. If any of these show up, you need imaging scans and urgent tests right away. Otherwise, keep moving as much as your pain allows, use a heating pad or pain relievers like ibuprofen for comfort, and see your doctor again if the pain is still bad after 4 to 6 weeks.

What you might feel

- Pain in the lower back (the area between your ribs and your buttocks)
- Pain worse with movement (bending, lifting, twisting) and better with rest
- Back muscle spasm and stiffness
- Cannot bend as far as usual (limited range of motion)
- Tender spot when you press on back muscles or the bumps along the spine
- Normal leg strength, feeling, and reflexes (in simple mechanical back pain)
- Shooting pain down the leg in a stripe pattern (sciatica) if a nerve root is pinched

- Numbness in the groin, buttocks, and inner thighs (saddle numbness—the area that would touch a saddle if you sat on a horse)
- Cannot pee (urinary retention) or new loss of bowel control
- Both legs getting weaker over hours to days (progressive bilateral leg weakness)

Call the doctor right away if...

- Age over 50 with new back pain (higher chance of a broken backbone from weak bones—osteoporosis—or cancer spread to the spine)
- History of cancer (risk the cancer has traveled to the backbone)
- Fever, chills, or losing weight without trying (points to infection or cancer)
- Recent injury or hard fall (risk of a broken vertebra—one of the bones in the spine)
- IV drug use or weak immune system (risk of an abscess—a pus pocket—in the spine or bone infection)
- Saddle numbness, cannot pee, or losing bowel control (cauda equina syndrome—nerves at the bottom of the spine are crushed)
- Legs getting weaker or losing feeling fast (progressive or severe nerve damage)
- Pain worse at night or not better with rest (suggests inflammation, infection, or cancer instead of simple strain)
- Long-term steroid use (weakens bones, raising fracture risk)

What the care team will do

- Screen for red-flag symptoms (bowel or bladder loss of control, leg weakness, fever, history of cancer, or recent trauma) and escalate immediately to the provider if any are present.
- Assess baseline neurologic function by checking leg strength (ask the patient to push their foot down and pull it up against your hand), sensation to light touch on both legs, and knee and ankle reflexes.
- Administer NSAIDs (like ibuprofen or naproxen) or acetaminophen as ordered, preferably scheduled rather than as-needed during the first few days.
- Teach the patient to stay as active as tolerated and avoid strict bed rest longer than 1 to 2 days.
- Apply ice packs for 15 to 20 minutes every 2 to 3 hours during the first 48 hours, then switch to moist heat if the patient prefers.
- Educate the patient on proper body mechanics—bend at the knees not the waist, hold heavy objects close to the body, and avoid twisting while lifting.

- Monitor for side effects of NSAIDs, especially stomach pain, black tarry stools, or signs of kidney problems (decreased urine output or swelling), particularly in older adults.
- Reassure the patient that most acute back pain resolves in 4 to 6 weeks and that imaging (X-ray or MRI) is not needed unless red flags are present or pain does not improve after 6 weeks of treatment.

Medicines you may be given — and why

NSAIDs (ibuprofen, naproxen)

NSAIDs block an enzyme called COX (cyclooxygenase). This enzyme works like a factory that makes prostaglandins—chemicals that tell your tissues to swell and turn on pain sensors. When you block COX, the factory shuts down. Your hurt tissue makes fewer swelling chemicals and your nerves send fewer pain signals to your brain. The drug works right where the injury is in your back.

Acetaminophen (Tylenol)

Acetaminophen works in your brain and spinal cord to change how pain signals are read. It may block COX enzymes there and raise the level of endocannabinoids (your body's natural pain dampeners). It lowers how much pain you feel, but it does not reduce swelling in your back because it does not work at the injury site.

Muscle relaxers (cyclobenzaprine, methocarbamol)

Muscle relaxers work in your brain and spinal cord to turn down the signals that tell your back muscles to squeeze tight. When you hurt your back, your nervous system automatically makes the muscles around the injury clamp down hard (a spasm) to hold the area still. This protects the injury but also causes pain and stiffness. Muscle relaxers calm that reflex so the muscles loosen up and you can move more easily.

Topical NSAIDs (diclofenac gel)

You rub the gel on the skin over your sore back. The NSAID soaks through the skin and into the muscle and tissue below. It blocks COX enzymes right at the injury site, stopping prostaglandin production there. Because the drug stays local and only a tiny amount enters your bloodstream, it has much less risk of stomach or kidney problems than pills.

Where this information comes from

- American College of Physicians (ACP) 2017 Low Back Pain Clinical Practice Guideline
- North American Spine Society (NASS) Evidence-Based Clinical Guidelines
- American Academy of Family Physicians (AAFP) Acute Low Back Pain Guideline

- Cochrane Review: NSAIDs for Acute Low Back Pain

Last reviewed: 2026-07-07