

Information about Back Pain

Patient Information Packet

Back pain is common — and usually gets better

About 8 in 10 people have back pain at some point. Most cases have no serious cause and improve within 2 to 6 weeks. This packet does not replace advice from your doctor.

Anatomy of spine

Your spine is a column of bones (vertebrae) separated by rubbery cushions (discs). Small facet joints at the back guide movement, and muscles and ligaments hold it steady. Nerves leave the spine through small openings at each level.

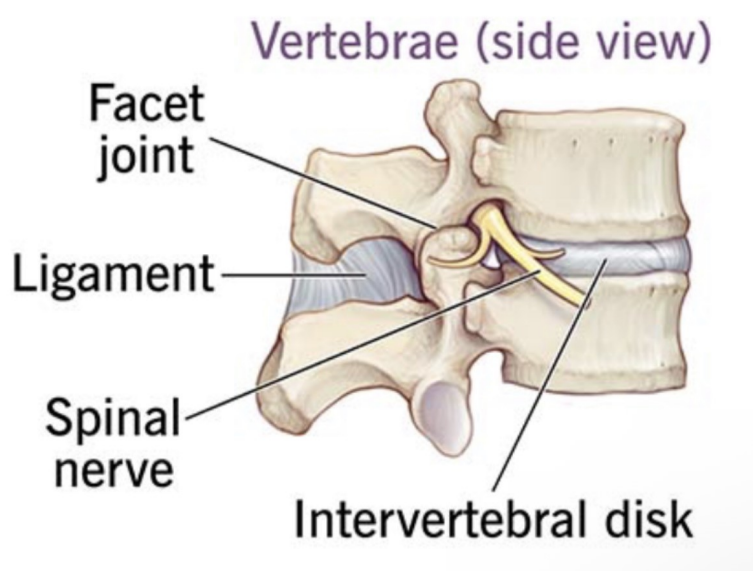


Figure 1. The nerve leaves the spine right beside the disc and the facet joint.

What causes back pain

About 9 in 10 cases are "mechanical" — a strain of the muscles, ligaments, joints or discs. Serious causes are rare.

Cause	Typical symptoms
Muscle or ligament strain	Aching, stiffness, spasm; no leg symptoms
Disc herniation ("slipped disc")	Sharp pain shooting down one leg (sciatica), tingling, numbness
Spinal stenosis (narrowed canal)	Leg pain or heaviness when walking, eased by sitting or bending forward
Facet joint arthritis	Pain on leaning back or twisting; morning stiffness
Fracture, often from weak bones	Sudden severe pain, sometimes after a minor fall

Cause	Typical symptoms
Infection or tumour (rare)	See "Warning signs"

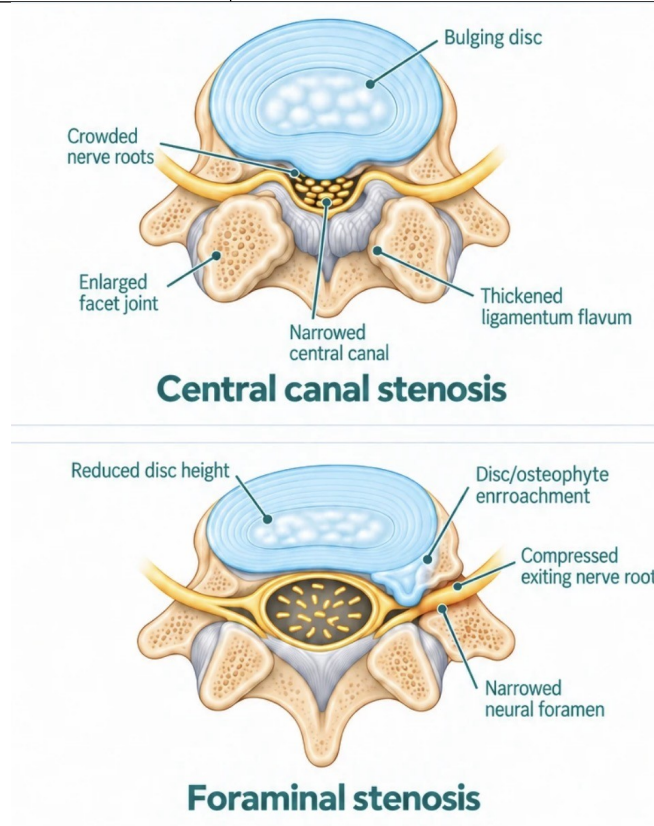


Figure 2. Stenosis crowds the nerves in the canal (top) or in the opening where a nerve leaves (bottom).

Things that increase your risk of having back pain

- Age over 30, previous back pain, family history
- Inactivity and weak core muscles
- Excess weight, smoking and poor sleep
- Heavy lifting, or long hours of sitting or driving
- Weak bones (osteoporosis) and pregnancy
- Stress, low mood and fear of movement

Why it hurts

- **Inflammation:** strained tissue releases chemicals that make it sore, worst in the first few days.
- **Muscle spasm:** muscles tighten to guard the area, squeeze their own blood supply and hurt more — a cycle that gentle movement breaks (Figure 3).
- **Nerve pressure:** a disc or narrowed canal irritates a nerve, sending pain down the leg.
- **Sensitisation:** pain lasting over 3 months can "turn up" the nervous system's alarm. Good sleep, activity and reassurance turn it down.

More about muscle pain

Muscle and ligament strain is the most common cause of back pain. Several processes work together:

- **Small tears:** a sudden load or overuse tears tiny muscle fibres. Damaged cells release chemicals (such as prostaglandins and bradykinin) that switch on pain nerves and make them sensitive to touch and movement.
- **Guarding and spasm:** nearby muscles tighten to protect the area. A muscle that stays tight squeezes its own blood vessels, so less oxygen reaches it.
- **Waste build-up:** with less blood flow, acid and other waste collect in the muscle, irritating the nerves and causing more spasm.
- **Trigger points:** tight, tender knots can form in the muscle and send pain to the buttock or hip.
- **Deconditioning:** avoiding movement weakens the deep muscles that support the spine, so the back strains again more easily.
- **Fear of movement:** worry about causing harm leads to stiffness and guarding, which increases pain.

How muscles heal: inflammation peaks in the first 2 to 5 days, repair takes 1 to 6 weeks, and the new tissue strengthens over the following months. Gentle activity during repair helps the new fibres heal strongly.

Pain and spasm feed each other; movement breaks the loop

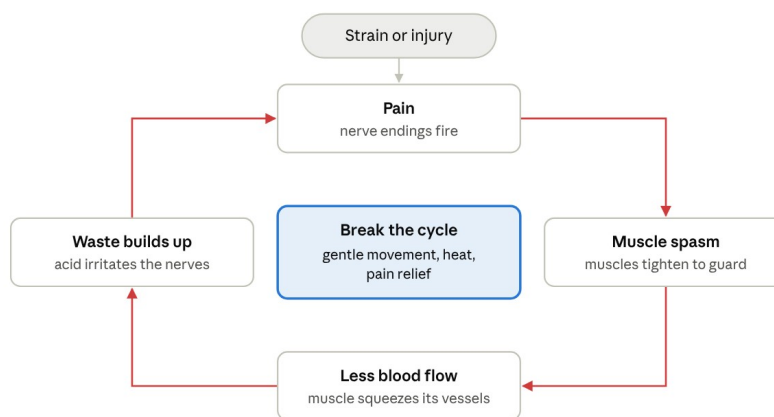


Figure 3 · the pain–spasm–pain cycle

Scans often show "wear and tear" in people with no pain at all — usually normal for your age.

Warning signs: get urgent care

Go to the Emergency Department immediately if back pain comes with numbness around the genitals or buttocks, new difficulty passing urine, loss of bladder or bowel control, or weakness in both legs. These can mean **cauda equina syndrome**, which needs emergency surgery.

See a doctor within 24 hours if you have fever, a history of cancer or unexplained weight loss, pain after a fall or injury, constant pain at night, or long-term steroid use.

Diagnosis

Most back pain is diagnosed by examination alone. Scans (MRI, CT or X-ray) are needed only with warning signs, severe or worsening nerve symptoms, or no improvement after 6 weeks. Early scans do not speed recovery.

Treatment

Most people get better on the first three steps
A step is added only if the ones before have not helped enough

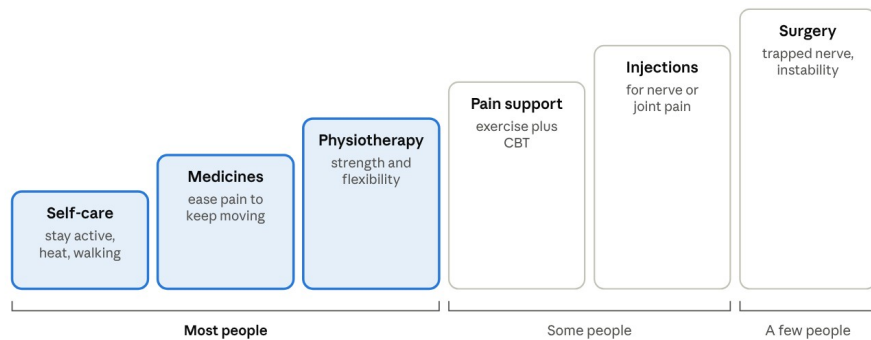


Figure 4 · the treatment ladder

Self-care

- **Keep moving:** bed rest slows recovery; return to normal activity and work as soon as you can
- **Walk** a little every day and build up gradually
- **Use heat** to ease spasm and stiffness
- **Change position** at least every 30 to 45 minutes

Medicines

Take medicines only as your doctor prescribes, for the shortest time needed.

Medicine	Type	Key points
Olfen patch (diclofenac)	Anti-inflammatory patch	Morning and evening, on clean, unbroken skin
Roxonin tape (loxoprofen)	Anti-inflammatory patch	Once a day; remove if the skin becomes irritated
Mobic (meloxicam)	Anti-inflammatory tablet	Once a day, with food
Naproxen	Anti-inflammatory tablet	Usually twice a day, with food
Tilax (tizanidine)	Muscle relaxant	Causes drowsiness; not with ciprofloxacin or fluvoxamine
Baclofen	Muscle relaxant	Causes drowsiness; do not stop suddenly after regular use
Paracetamol	Pain reliever	Do not exceed the daily limit

- **Ask your doctor before anti-inflammatories** if you have a stomach ulcer, kidney or heart disease, take blood thinners, or are pregnant. Never combine two anti-inflammatories, including a patch with tablets.
- **Do not drive** while taking muscle relaxants, and avoid alcohol.
- **Get medical help** for black stools, vomiting blood or severe stomach pain.

Physiotherapy and exercises

Exercise is the best-proven long-term treatment. Do these once or twice a day, starting with 5 repetitions and building to 10. **Stop** if you feel sharp pain, or pain or numbness spreads into your leg or arm.

Exercise	How to do it
Lower back	
Pelvic tilt	On your back, knees bent: flatten your lower back into the floor. Hold 5 seconds
Knee to chest	On your back: pull one knee gently to your chest. Hold 20 seconds, then switch
Cat-camel	On hands and knees: slowly arch your back up, then let it sag gently
Bird dog	On hands and knees: stretch one arm forward and the opposite leg back. Hold 5 seconds
Bridge	On your back, knees bent: squeeze your buttocks and lift your hips. Hold 5 seconds
Neck and upper back	
Chin tuck	Sit tall: draw your chin straight back. Hold 5 seconds
Side bend stretch	Tilt one ear towards your shoulder. Hold 20 seconds, then switch
Shoulder blade squeeze	Squeeze your shoulder blades together and down. Hold 5 seconds

Walking, swimming, Pilates and yoga also help. See your doctor promptly if neck pain comes with arm weakness or numbness, or trouble with balance.

Injections and surgery

For some people with nerve or joint pain, an X-ray-guided injection can ease pain for weeks to months. Surgery is considered for cauda equina syndrome, worsening leg weakness, or leg pain that stays disabling after 6 to 12 weeks of other treatment. Common operations — microdiscectomy, decompression and fusion — are often done through small incisions, and work best for leg pain from a trapped nerve.

Protecting your back

- Stay active: aim for 30 minutes of walking on most days
- Keep your core muscles strong and your weight healthy
- Lift with bent knees, with the load close to your body
- Take breaks from sitting, and stop smoking

When to follow up

See your doctor if pain is not improving after 4 to 6 weeks, leg or arm symptoms are getting worse, or pain stops you from working or sleeping.