

Back Pain Management

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Posture

Sitting

1. Feet flat on the floor or footrest
2. Knees at roughly 90° — level with or slightly below hips
3. Lower back supported by chair or a lumbar cushion
4. Shoulders relaxed, not hunched forward
5. Screen at eye level to prevent neck strain

Standing Posture

Stand with feet shoulder-width apart, a slight bend in the knees, core gently engaged, and ears aligned over shoulders and hips. Avoid locking the knees or overarching the lower back. Anti-fatigue mats help when standing for long periods.

Work Surface Heights

Countertops and work surfaces should be at elbow height to avoid prolonged bending. If too low, raise the surface or use a step stool. Use long-handled tools for tasks near the floor.

Home Safety

- Install grab bars in the bathroom and shower
- Remove loose rugs and trailing cables
- Ensure good lighting in all rooms, especially hallways and stairs
- A fall-related fracture can cause debilitating, long-term back pain

Driving

Adjust the seat so hips are level with or slightly above knees. Use lumbar support. Keep the steering wheel at a comfortable reach. Take breaks on long journeys every 45–60 minutes to stand and stretch.

Carrying Loads

Use a backpack over both shoulders rather than a single-shoulder bag. Keep total bag weight under 10–15% of body weight. Use wheeled bags for heavier loads like shopping.

Daily Habits

Sleeping Position

Sleep on your side with a pillow between your knees, or on your back with a pillow under your knees. Avoid sleeping on your stomach. Use a medium-firm mattress.

Avoid Prolonged Sitting

Stand up and move for 2–5 minutes every 30–45 minutes. Set a gentle reminder if needed. Prolonged static postures compress lumbar discs.

Lifting Technique

1. Stand close to the object
2. Bend at the knees and hips — not the waist
3. Keep the load close to your body

4. Rise using leg muscles
5. Avoid twisting while lifting

Temperature Therapy

- Heat (hot water bottle, heating pad) — relaxes tight muscles and improves blood flow.
- Cold (ice pack wrapped in cloth) — reduces inflammation. Use for acute flare-ups. Apply for 15–20 minutes at a time.

Hydration

Intervertebral discs are approximately 80% water. Dehydration accelerates disc degeneration. Aim for 6–8 glasses of water daily unless medically restricted.

Footwear

Wear shoes with good arch support and cushioning. Avoid flat shoes (flip-flops, ballet flats) and high heels. Orthotics can be prescribed for additional support.

Stress Management

Chronic stress increases muscle tension and pain perception. Mindfulness meditation, deep breathing, and social connection all help reduce the psychological load that worsens back pain.

Healthy Weight

Excess weight — especially around the abdomen — shifts the centre of gravity forward, increasing lumbar strain. Even a modest reduction of 5–10% of body weight relieves significant spinal stress.

Food & Nutrition

Anti-Inflammatory Foods to Favor

- Fatty fish (salmon, sardines, mackerel) — Rich in omega-3s that reduce spinal inflammation
- Berries (blueberries, cherries) — High in antioxidants that combat oxidative stress
- Leafy greens (spinach, kale) — Provide magnesium, calcium and vitamin K for bone health
- Olive oil — Contains *oleocanthal*, a natural anti-inflammatory compound
- Nuts & seeds (walnuts, flaxseeds) — Good plant-based omega-3 source
- Turmeric & ginger — Potent natural anti-inflammatories; add to food or teas
- Eggs & dairy — Support vitamin D and calcium for bone density
- Legumes (lentils, beans) — Protein for muscle repair and fibre for healthy weight

Foods to Avoid

- Processed and fried foods — promote systemic inflammation
- Refined sugars and white bread — spike inflammatory markers
- Excessive red and processed meats
- Alcohol — dehydrates discs and interferes with sleep quality
- Excess caffeine — can deplete calcium stores over time
- High-sodium foods — may worsen inflammation and blood pressure

Calcium & Vitamin D

Critical for preventing osteoporosis, which weakens vertebrae and increases fracture risk. Older adults often need supplements — discuss with a doctor. Dairy, fortified cereals, and sunlight exposure all help.

Magnesium

Deficiency is common in older adults and linked to muscle cramps and spasm. Good sources: dark chocolate, avocados, nuts, seeds, and leafy greens. Magnesium glycinate supplements are well-tolerated.

Protein

Adequate protein (1.0–1.2g per kg of body weight for older adults) supports muscle mass maintenance, which is essential for spinal stability. Lean meats, fish, eggs, dairy, and legumes are all good sources.

Collagen & Vitamin C

Collagen supports intervertebral disc cartilage. Vitamin C is required for collagen synthesis. Citrus fruits, bell peppers, strawberries, and bone broth are beneficial sources.

Exercises

Always consult a doctor or physiotherapist before starting a new exercise program.

Cat-Cow Stretch

On hands and knees, alternate arching (cow) and rounding (cat) the spine. Improves spinal flexibility and reduces stiffness.

- 5–10 reps, 1–2 times daily

Knee-to-Chest Stretch

Lying on your back, pull one knee gently toward your chest and hold. Releases tension in the lower back and hip flexors.

- Hold 20–30 seconds each side, twice daily

Pelvic Tilts

Lie on your back with knees bent. Gently flatten your lower back against the floor by tightening your abdominals. Builds core stability safely.

- 10–15 reps, once daily

Glute Bridges

Lie on your back, feet flat. Lift hips until body forms a straight line from knees to shoulders. Strengthens glutes and lumbar muscles.

- 10 reps, 2 sets. Rest 60 seconds between sets.

Bird-Dog

From hands and knees, extend one arm and the opposite leg simultaneously. Hold 5 seconds. Builds spinal stability and balance.

- 8–10 reps each side, daily

Walking

A 20–30 minute walk most days improves circulation, maintains disc health, and keeps back muscles active without excessive strain.

Swimming / Water Aerobics

Water buoyancy dramatically reduces spinal load while allowing full range of motion. Excellent for those with arthritis or severe pain.

Chair Yoga / Tai Chi

Gentle movements that improve flexibility, core strength, and balance. Also reduces fall risk — a major concern for back injury in the elderly.

Medications & Supplements

Always consult a doctor before starting, stopping, or changing any medication. Older adults are at higher risk of side effects and drug interactions.

Paracetamol (Acetaminophen) — First-line

Usually the first-line oral pain reliever recommended for older adults. Gentler on the stomach than NSAIDs. Must not exceed the daily dose limit (typically 3–4g/day).

NSAIDs (Ibuprofen, Naproxen) — Use with caution

Effective for inflammation-related pain. However, in older adults they carry elevated risks of gastrointestinal bleeding, kidney stress, and cardiovascular events. Use the lowest dose for the shortest time, and take with food. Topical NSAID gels are preferred — same effect, far fewer systemic risks.

Topical Analgesics — Preferred for localized pain

Diclofenac gel, capsaicin cream, or lidocaine patches applied directly to the painful area. Minimal systemic absorption makes these much safer for older adults — often as effective as oral NSAIDs.

Vitamin D & Calcium

Prevent osteoporosis and vertebral fractures. Many older adults are deficient. A doctor can check blood levels. Vitamin D3 (cholecalciferol) combined with calcium carbonate or citrate is the standard form.

Glucosamine & Chondroitin

May help maintain disc and cartilage health. Evidence is moderate but they are well-tolerated with minimal side effects. Best taken consistently over several months to assess benefit.

Prescription Options (doctor's discretion)

Muscle Relaxants — Used short-term for acute muscle spasm (e.g. cyclobenzaprine, methocarbamol). In older adults, these cause significant sedation and fall risk, and should only be used under close medical supervision for very brief periods.

Low-dose SNRIs (e.g. Duloxetine) — FDA-approved for chronic musculoskeletal pain. Sometimes prescribed for chronic lower back pain, particularly when sleep and mood are also affected.

Physiotherapy & Manual Therapy — A prescription-strength intervention without medication. A physiotherapist can design a personalized program. Spinal manipulation (chiropractic or osteopathic) can help for certain types of mechanical back pain.

Warning Signs

Seek immediate medical attention if any of the following occur alongside back pain.

Emergency — Go to A&E Immediately

Loss of Bladder or Bowel Control

This may indicate *cauda equina syndrome* — a rare but serious nerve compression requiring urgent surgical intervention. Do not wait.

Numbness or Weakness in Legs

Progressive leg weakness, numbness, or difficulty walking alongside back pain can signal spinal cord compression or serious neurological involvement.

Pain After a Fall or Trauma

In older adults with osteoporosis, even a minor fall can cause a vertebral compression fracture. X-ray or MRI is needed to rule this out.

Unexplained Weight Loss + Back Pain

This combination warrants evaluation for serious underlying conditions, including infection (spinal osteomyelitis) or malignancy.

Pain That Worsens at Night

Back pain that is worst at rest or at night — unlike mechanical pain, which typically improves with rest — needs further investigation.

Fever with Back Pain

A combination of fever and back pain may indicate spinal infection (*discitis or osteomyelitis*), which requires prompt antibiotic treatment.