

Osteoporotic Spinal Fractures

An osteoporotic spinal fracture — a vertebral compression or fragility fracture — is the collapse or wedging of one of the spine's building-block bones, caused by bone weakened by osteoporosis. Most are not dangerous to the nerves and the pain settles over weeks; the most important step is to treat the underlying osteoporosis to prevent the next fracture.

THE BIG PICTURE

Common, often silent, and a warning sign

These are the commonest fractures caused by thin bones. They often happen with little or no force — bending, a cough, a minor stumble — and around two-thirds cause little or no pain and are found by chance. The collapse is usually at the front of the bone, so the nerves are nearly always spared and the fracture is stable.

IN PLAIN TERMS

The front block of a spinal bone, weakened by osteoporosis, crumples a little. It is usually stable and not dangerous to the nerves, but it is a clear sign that the bones need attention.

1 Symptoms

- Sudden back pain at the fracture level, worse on moving or standing, eased by lying down — though many cause little or no pain.
- Over time, with repeated fractures: loss of height and a forward curve of the upper back (a stoop).
- Pressure on the nerves is uncommon, because these fractures are usually stable.

SEEK PROMPT REVIEW IF YOU NOTICE

New or progressing weakness or numbness in the legs, or any disturbance of bladder or bowel control. Also tell your doctor about any unexplained fracture, or weight loss, fever or night pain, which can point to another cause.

2 How it is assessed

An X-ray shows the wedging; an **MRI** confirms a recent fracture and helps exclude other causes; a CT gives bone detail; a **DEXA bone-density scan** and blood tests confirm and investigate the osteoporosis. Identifying the fracture is only half the job — treating the bone fragility is the other half.

REASSURANCE

Most acute fractures heal and the pain settles over about six to twelve weeks. The bigger risk is the next fracture — and that is very treatable.

3 Treatment

Non-surgical care and treating the osteoporosis

Most people are managed without surgery: sensible pain relief, early gentle movement and physiotherapy, and falls prevention. Running alongside — and arguably more important — is treating the osteoporosis: calcium and vitamin D, a bone-protecting medicine (such as a bisphosphonate, or a bone-building drug for high risk), and referral to a fracture liaison service. This is the single most beneficial step, because it prevents future fractures.

Procedures and surgery

For severe, persistent pain from a recent fracture, injecting bone cement (vertebroplasty or balloon kyphoplasty) may be considered in carefully selected people — though the evidence is genuinely mixed. Major surgery is reserved for the rare cases with instability, deformity or nerve pressure.

THE KEY MESSAGE

An osteoporotic spinal fracture is a collapsed vertebra from thin bone, usually after little or no trauma. Most are stable and the pain settles over weeks; many are even painless. Every one is a warning that the bones are fragile, and the most important step is to assess and treat the osteoporosis — with calcium, vitamin D, bone-protecting medicines and a fracture liaison service — because that prevents the next fracture. Act on any leg weakness or numbness, or bladder or bowel changes.

A NOTE BEFORE YOU START

This information is for general education and does not replace the advice of your clinical team. Please use it to ask better questions, not to make decisions on your own.

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