CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

PATIENT INFORMATION

Vertebroplasty and kyphoplasty

Why this operation has been suggested

Dr Kieran Hirpara, a spine surgeon at our practice, offers vertebroplasty and kyphoplasty for painful compression fractures in the middle and lower back. These are minimally invasive procedures. Bone cement is placed inside a cracked vertebral body, one of the building blocks of the spine, to steady it and settle pain. Vertebroplasty injects the cement directly. Kyphoplasty first makes a small space inside the bone, then fills it.

We usually suggest these operations when a fracture is still painful after non-operative care has not given enough improvement. That care might include rest, a brace, pain relief and gradually returning to movement. Some people come to surgery sooner if the fracture is unstable or pressing on nerves.

Patients are generally referred to our clinic by their GP; if a physiotherapist has suggested you see us, you will still need a referral from your GP in order to be eligible for the Medicare rebate. We assess your history, examine you and arrange imaging to confirm the fracture and check the bone strength.

The aim is pain relief and getting you moving again. Vertebroplasty gives quick pain relief in about 90% of people with osteoporotic fractures, meaning fractures caused by thin, weakened bone. Both procedures can ease pain and restore movement faster than non-operative treatment alone.

Before the operation

You will need some imaging before we can plan your procedure. This may include X-rays, an MRI scan or a CT scan. These scans confirm the fracture and show us the shape of the broken bone. We also take a small sample of bone tissue, called a biopsy, before every cement procedure. This helps us confirm what we are treating.

In the days before surgery, keep taking your usual medications unless we tell you otherwise. You will need to stop eating and drinking seven hours beforehand. We ask for seven hours so we can bring you forward if the theatre list runs early. Arrange for someone to drive you home afterwards. Wear loose, comfortable clothing and bring a list of your current medications. If you have other medical conditions, you may need blood tests or a review with the anaesthetist, the doctor who gives your anaesthetic.

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On the day

You will arrive at the hospital's surgical admissions unit, where you are checked in and prepared for theatre. You will then meet the anaesthetist, the doctor who gives your anaesthetic. This operation is done under general anaesthetic. A regional nerve block is sometimes added for post-operative pain relief; the anaesthetist will discuss this with you on the day.

You are then taken into the operating theatre, where the operation is performed. Afterwards, you wake up in the recovery area, where nurses monitor you while the anaesthetic wears off. Once you are stable, you either go to the ward or go home, depending on the procedure and your recovery.

What the operation involves

Both vertebroplasty and kyphoplasty are keyhole procedures done through a small cut in your back, over the broken bone. Your surgeon works with X-ray guidance so the instruments reach the right spot inside the spine.

In vertebroplasty, bone cement is placed directly into the cracked vertebral body to steady it. In kyphoplasty, your surgeon first makes a small space inside the bone, often using a tiny balloon that is inflated and then removed, before filling that space with cement. The cement sets firmly within the bone and holds the fracture from the inside.

The cut is closed with stitches and covered with a dressing. Because the procedure works through such a small opening, there is no large incision to heal.

What can go wrong

These procedures are generally safe, and complications are relatively infrequent. The most common is cement leaking slightly outside the fractured bone. This happens more often with vertebroplasty than with kyphoplasty, and more often when a fracture is caused by cancer spread rather than thin bone. Most leaks cause no symptoms at all.

Any operation on the spine carries some general risks, including infection, bleeding and reactions to the anaesthetic. There is also a small chance of a new fracture in a nearby vertebral body later on. The strongest factors behind new fractures are how thin your bone is and whether the spine stays bent forward at the fracture site. Having one of these procedures does not raise the risk of a fracture in new levels compared with non-operative care.

We will talk through all of these risks with you before you decide, and you can ask questions at any point.

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After the operation

You will wake up in the recovery area, where nurses watch you as the anaesthetic wears off. Pain relief is part of your care plan, and we will keep you comfortable while the cement settles and the small cut in your back begins to heal. Most people are up and moving soon after the procedure, often on the same day. Someone should stay with you for the first 24 hours after you get home. Your team will tell you whether you go home the same day or stay one night in hospital. We leave the dressing on for about 10 days; please do not take it off before then unless we tell you to. We change or remove it when we see you.

Recovery

Most people are up and moving soon after the procedure, often on the same day. The small cut in your back may be tender for a few days. Some bruising around the site is normal and settles on its own. Simple pain relief and short, gentle walks help. Keep the dressing dry and leave it on for about 10 days; we will change or remove it when we see you.

In the early days you will do short walks around the house, resting as you need. Your physiotherapist will guide you through gentle movement and build this up as your comfort allows. You can sleep in whatever position feels comfortable. Avoid heavy lifting, bending and twisting until we tell you these are safe. Once the pain has settled, day-to-day tasks like cooking and showering become easier.

The cement sets within the bone during the operation itself, so the fracture is steadied from the inside straight away. As your pain eases, you will find you can stand and walk for longer. Getting back to your usual activities happens in stages, and we will clear you for each one as you reach it, including driving when you are off strong pain medication and can react in an emergency stop.

Recovery varies between people. Your timeline may differ, and your surgeon and physiotherapist will guide you at each review.

What can go wrong

Most patients do well, but problems can occasionally happen. Your surgeon and the team monitor you closely to spot any issue early.

Cement can sometimes leak slightly outside the fractured bone. Most leaks cause no symptoms at all, so you would not feel anything. If you notice new pain, numbness or weakness after the procedure, call the clinic so we can check it.

A fracture in a nearby vertebral body can happen later on. This feels like a fresh episode of the same problem: a sudden band of pain across the middle or lower back that is worse when you stand or move. If this happens, contact the clinic rather than waiting for your next review.

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The treated bone can also collapse again, losing some of the height that was restored. You would notice the pain returning or the spine bending forward more than before. Bring this up at your next review, or call sooner if the pain is strong.

Some situations carry more risk than others. Fractures caused by cancer spread rather than thin bone are more likely to leak cement. Severe collapse at the front edge of the bone, with the spine bent forward, makes problems more likely with vertebroplasty alone. If either of these applies to you, we will discuss it before you decide.

The complications table on this page lists typical rates if you want the specifics.

When to call us

Call us if you have a fever, or the skin around the small cut in your back becomes more red, swollen or starts to leak fluid. Call us if you notice new pain, numbness or weakness, or if the pain from your fracture suddenly gets much worse. Go to emergency if you have calf swelling or pain, shortness of breath, chest pain, loss of feeling in your legs, or trouble moving them. These symptoms need checking straight away.

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