

# Vertebroplasty and Kyphoplasty

## About this Procedure

Vertebroplasty and kyphoplasty are image-guided, non-surgical treatments used to strengthen a broken vertebra (back bone) that has been weakened by osteoporosis, cancer, or some other cause. Individual vertebra weakened by disease can collapse suddenly under the force of normal, daily activity. This can cause severe pain, limited mobility, and an inability to perform routine daily activities.

Vertebroplasty is done by injecting an orthopedic cement mixture through a needle into the fractured bone.

With kyphoplasty, an attempt is made to elevate the fracture by inserting a balloon into the compressed vertebral body prior to injecting the cement mixture.

## Who should have vertebroplasty or kyphoplasty?

If you have significant back pain caused by a broken bone in your back and are feeling no relief despite bed rest and taking pain medicines, you may be a candidate for either of these procedures. Newer fractures tend to respond better than older fractures. Some older fractures can also be treated successfully.

## Am I a candidate for either of these treatments?

First, you'll have a complete workup. Most times, the workup includes diagnostic imaging, blood tests, and an exam. Diagnostic imaging such as spinal X-rays, a bone scan or magnetic resonance (MRI) imaging will be done to confirm the presence of a compression fracture that can be treated with vertebroplasty or kyphoplasty. If an MRI cannot be performed, because of a pacemaker or other medical factor, a computerized tomography (CT) scan can be done instead. Based on your findings, your doctor will discuss with you which one of the two procedures will be more beneficial and safe to perform in your case.

## How Does It Work?

### How do these treatments work?

After vertebroplasty or kyphoplasty, the cement stabilizes the fracture and makes the vertebral body more sturdy, which prevents further collapse and deformity. The stabilization of the fracture is the mechanism by which pain is relieved. These effects are apparent within the first 24 to 72 hours after treatment.

### How are these treatments given?

It is important for you to be able to lay prone (on your belly) on an X-ray table for these treatments. You will be sedated (given medicines to help you relax and stay calm) and will receive a local anesthetic to numb the skin on your back, near the fracture. IV antibiotics may also be given to prevent infection. A nurse will be present with you throughout the treatment, and if you feel any discomfort, more sedation can be given. Our goal is to have you as comfortable as possible throughout the treatment.

A small needle is passed through your skin on your back until its tip is precisely positioned within the fractured vertebra. Once the needle is shown to be in the proper place, the cement is injected over the next 10 to 20 minutes.

The entire treatment is done using X-rays, which makes it very safe and reliable. The treatment usually takes about 1 hour (longer if more than one site is being treated). Most patients go home the same day, but sometimes an overnight hospital stay is needed.

# How Do I Prepare?

## How should I prepare for the treatment?

- Do not eat for at least 6 hours before the treatment.
- If you are diabetic, contact your doctor for instructions on managing your blood sugar and medications.
- If you are on blood thinners such as Coumadin or Plavix, you may have to stop taking them before the treatment.
- Consult with your doctor before stopping any medications.
- Unless otherwise stated by your doctor, all other daily medications should be taken on the day of the treatment. Swallow your medicine with sips of water or clear liquids up to 3 hours before the treatment.
- Do not drink orange juice, cream, or milk.
- Arrange for an adult to drive you home after the treatment.

## Risks/Complications

All procedures involve some risk. The risk of having vertebroplasty is generally less than 1%. The risks include:

- Bleeding
- Infection
- Allergic reaction
- Fracture
- Cement migration (the cement goes outside of the vertebral body where it is placed)
- Canal narrowing (where the space in the vertebrae that the spinal cord goes through becomes smaller)
- Pulmonary embolus (where the medical cement goes from the vertebral veins to the lungs causing blockage of the blood supply to the lungs)
- You also may not obtain relief of your pain and this could cause you continued discomfort.

## After the Procedure

### What will I experience after the treatment?

- Strict bed rest is recommended for the first 2 hours, after which you can get up to use the bathroom.
- Increase your activity gradually. If you take blood thinners, check with your doctor, as you may be able to restart them the day after the treatment.
- For 2 or 3 days afterward, you may feel a bit sore at the needle entry site but, rarely do you need any specific treatment for it. In fact you should notice a decrease in need for pain medications compared to before the treatment.
- The tiny Band-aid on your back, at the needle entry site can be removed in 2 to 3 days. It's important that the site remain dry until the Band-aid has been removed.
- After the procedure is over and you are home, call to schedule a visit with your primary care doctor in 2 weeks to discuss how you are feeling and to consider treatment for underlying osteoporosis and bone weakness, to prevent additional fractures.

## Questions ?

Call 570-207-1726

Your questions are important. Call your doctor or health care provider if you have questions or concerns. Radiological Consultants, Inc. staff are also available to help at any time.

**Radiological Consultants**  
**570-207-1726**

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