

# HealthExchange

## Osteoporosis and the Mature Spine

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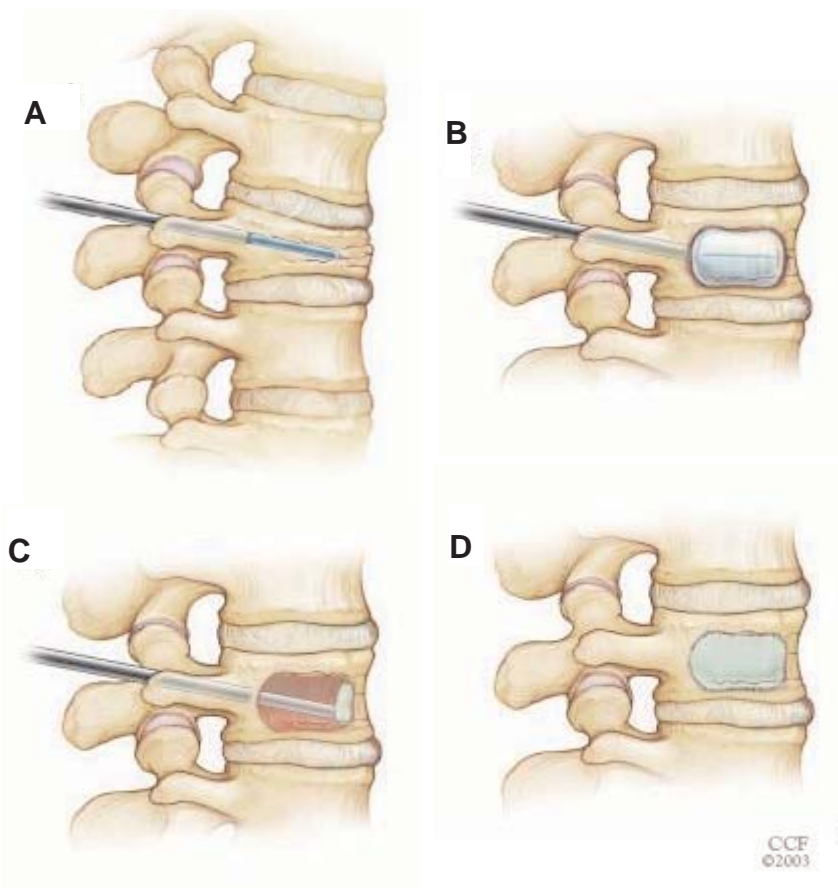
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### Kyphoplasty



During kyphoplasty, an inflatable balloon-like device is inserted into the vertebra through the bone needle (A). As the balloon is inflated (B), it opens up a space that is then filled with the bone cement (C). When it hardens, the cement forms an internal cast (D) that stabilizes the vertebra, restores its height, and straightens out the spinal curve.

### Vertebroplasty and Kyphoplasty: Treatments for Fractured Vertebrae

#### What is vertebroplasty?

Vertebroplasty is a technique for treating vertebral compression fractures, small breaks in the thick mass of bone that makes up the front part of the vertebra, called the vertebral body. Vertebral body fractures lead to the collapse, or compression, of the vertebra, causing the spine to shorten and curve forward. This can result in pain and a hunched-over appearance.

Thinning of bones, or osteoporosis, is the main cause of vertebral compression fractures.

## How is vertebroplasty performed?

Vertebroplasty is a procedure to reinforce a collapsing vertebral body using a special cement-like material. With the patient lying on his or her stomach, the doctor inserts a hollow needle, called a trocar, through the skin and into the vertebra. A type of X-ray, called fluoroscopy, is used to guide the needle into position. A contrast agent (dye) is injected to help the doctor see and avoid blood vessels.

Once the needle is in place, a syringe is inserted to inject the cement mixture into the bone. As the cement hardens, it permanently reinforces the weakened vertebra. The procedure is usually done on both the right and left sides of the fractured vertebral body. Vertebroplasty can relieve the pain and prevent further collapse of the vertebral body. It cannot correct the spinal curve, but might help prevent further curving.

## What is kyphoplasty?

Kyphoplasty is similar to vertebroplasty in that it uses a type of bone cement to reinforce the vertebral body. During kyphoplasty, however, an inflatable balloon-like device is inserted into the vertebra through the bone needle. As the balloon is inflated, it opens up a space that is then filled with the bone cement. In addition to stabilizing the vertebra and relieving pain, kyphoplasty restores the height of the vertebra, thereby straightening out the spinal curve.

## Who is a candidate for these procedures?

Vertebroplasty and kyphoplasty are generally reserved for people with chronic back pain that is not relieved by conser-

vative treatments, such as bed rest, pain medicine, and bracing. Candidates for these procedures often experience significant decreases in mobility and function as a result of the fractures.

To be a candidate for vertebroplasty or kyphoplasty, a person's pain must be related to a vertebral fracture and not due to other problems such as disk herniation or severe arthritis. Imaging tests - such as spinal X-rays, bone scans, and computed tomography (CT) or magnetic resonance imaging (MRI) scans - might be ordered to confirm the presence of a vertebral fracture.

## How do I prepare for vertebroplasty and kyphoplasty?

Your doctor will give you specific instructions about taking your regular medicines before the procedure. You will be asked to not eat for at least six hours before the procedure. Tell your doctor if you are allergic to iodine or have ever had an allergic reaction to X-ray contrast material. You will need to have someone drive you home after the procedure.

## What type of anesthesia is used for vertebroplasty and kyphoplasty?

Vertebroplasty and kyphoplasty are minimally invasive procedures that may be performed using local or general anesthesia, depending on the doctor and the needs of the patient. In most cases, these procedures are performed on an outpatient or same-day surgery basis.

## Are vertebroplasty and kyphoplasty painful?

You might feel sore in the area where the needle was inserted; however, this should

