Vertebroplasty & Kyphoplasty

What is Vertebroplasty & Kyphoplasty?

Vertebroplasty and kyphoplasty are minimally invasive fluoroscopic procedures for the treatment of painful vertebral compression fractures (VCF), which are fractures involving the vertebral bodies that make up the spinal column. In vertebroplasty, physicians use image guidance to inject a cement mixture into the fractured bone through a hollow needle. In kyphoplasty, a balloon is first inserted into the fractured bone through the hollow needle to create a cavity or space. The cement is injected into the cavity once the balloon is removed.

CPT Codes
72291 or 22520 Vertebroplasty
22524 Kyphoplasty / Lumbar
22523 Kyphoplasty / Thoracic

Indications
Painful vertebral compression fractures in the spine, most often the result of osteoporosis. Usually recommended after less invasive treatments, such as bed rest, a back brace or pain medication have been ineffective.

Contraindications
Arthritic back pain, spinal stenosis, severe emphysema or other lung disease because it may be difficult for such individuals to lie face-down for the one to two hours needed for the exam, healed (chronic) vertebral fracture, young, generally healthy patients who will likely heal quickly and naturally.

How Does Your Patient Prepare?
The order is obtained from the referring physician. The Radiology Nurse will call the patient to schedule the exam, obtain a medical history and list of medications, and give instructions for the procedure. The patient will be instructed to not eat or drink anything for several hours prior to procedure and to bring someone to drive home afterward. On the day of the exam, the patient will go to the short-stay unit for insertion of an IV and a blood test to determine if the blood clots normally. Women should inform the physician and technologist if there is any possibility of pregnancy.

What Happens During the Procedure?
The procedures are most often performed by a specially trained Interventional Radiologist and are often done on an outpatient basis. The patient will be positioned lying face-down for the procedure. The patient may be connected to monitors that track heart rate, blood pressure and pulse. Moderate sedation may be used. General anesthesia is sometimes used as an alternative. The area will be shaved, sterilized and covered with a surgical drape. A local anesthetic is then injected into the skin and deep tissues near the fracture. A very small skin incision is made at the site. Using fluoroscopic guidance, the trocar (hollow needle) is passed through the spinal muscles until its tip is precisely positioned within the fractured vertebra.
In vertebroplasty, the orthopedic cement is then injected. Medical-grade cement hardens quickly, typically within 20 minutes.
In kyphoplasty, the balloon tamp is first inserted through the needle and the balloon is inflated, to create a hole, or cavity. The balloon is then removed and the bone cement is injected into the cavity created by the balloon.
X-rays may be performed at the end of the procedure to check the distribution of the cement. The trocar is removed after the cement is injected. Pressure will be applied to prevent any bleeding, and the opening in the skin is covered with a bandage. No sutures are needed. This procedure is usually completed within one hour. It may take longer if more than one vertebral body level is being treated.

**After the Test**
The patient may not drive after the procedure. Approximately two hours after the procedure, the patient should be able to walk. The patient may resume all medications (blood thinners according to doctor’s orders) and gradually increase activities, avoiding strenuous exertion for at least six weeks. Pain resulting from the procedure can be treated with ice packs and will typically diminish within two to three days.

**The Results**
The Interventional Radiologist is often able to advise the patient post-procedure as to the procedure’s technical success. A signed report will be sent to the referring physician within one business day.

(Information adapted from www.radiologyinfo.org)

This information is intended for use as merely a guideline for referring physicians and their staff members only. It contains information pertaining to the most commonly ordered exams and indications. However, Shawnee Mission Medical Center Radiology does not recommend any particular examination. Individual radiologist preference or patient circumstances may dictate ordering alternative studies. Although contrast codes are not needed to place an order, the following contrast codes may be used in placing orders:

CT Contrast Q9967, MRI contrast A9577 and A9579.