

## What is a vertebroplasty? Why is it done?

A vertebroplasty is an injection of bone cement into a fractured vertebra. Many people in their lifetime may sometimes experience a compression fracture of the vertebra, one of the many bones in the spine. These can be due to osteoporosis, traumatic injury, cancer involving the spine, or other causes. These fractures can be very painful and sometimes, progression of the fracture can affect other functions of the body, like good posture or proper breathing. A vertebroplasty, the injection of a small amount of cement through a needle into the fracture, can stabilize the fracture, significantly reduce pain, and prevent progression of the fracture in the future.

## How long does it take to do?

The procedure takes about an hour. Please allow about 2-3 hours for the procedure; this will include talking to your doctor before the procedure, signing the informed consent, positioning in the room, and observation by the recovery room nurse afterwards.

## What medicines are injected?

The injection consists of a mixture of local anesthetic in the skin and deep tissues, and the bone cement into the fracture.

## Will it hurt?

All of our procedures begin by injecting a small amount of local anesthetic through a very small needle. It feels like a little pinch and then a slight burning as the local anesthetic starts numbing the skin. After the skin is numb, the procedure needle feels like a bit of pressure at the injection site. If you experience any pain during the procedure, your doctor will inject more local anesthetic as needed.

## Will I be “put out” for this procedure?

You will not be completely “put out” but you will be mildly sedated. It is important you are at least awake enough to communicate with your doctor. This procedure is done primarily under local anesthesia. However, your doctor can give you inhaled sedation (nitrous oxide or “laughing gas”), oral anti-anxiety medications, or oral pain medications as well.

## How is it done?

It is typically done with you lying on your stomach. Your blood pressure and oxygenation will be monitored. A small intravenous line will be started and you will receive antibiotics through it. In addition to your doctor and the x-ray technician,

there will be a nurse in the room at all times if you have any questions or discomfort during the procedure. The skin in the back is cleaned with antiseptic solution and then the procedure is done. During the procedure, you will feel the pressure of the needle being placed. If it becomes painful, let your doctor know at once and he/she can add more local anesthetic or more sedation. You may feel a slight tapping sensation. This is normal also. If any of these sensations make you feel uncomfortable, let your doctor know.

### **What should I expect after the injection?**

After the procedure, you will be taken to the recovery room. For about an hour, your “vital signs” will be monitored. The recovery room nurse will also periodically ask you to wiggle your toes or move your legs. You may start to notice pain relief right away.

### **What should I do after the procedure?**

We advise the patients to take it easy for a day or so after the procedure. Your recovery room nurse will advise you about applying ice to the site and the limits on activity for a few days after the procedure.

### **Can I go back to work the same day or the next day?**

No. Since sedation is used, you should go home and rest. Your doctor or recovery room nurse will discuss this with you.

### **How long does it last?**

The placement of cement is permanent. Whether or not you obtain complete pain relief will depend on what other pain generators you have in the area. Your doctor will discuss this with you.

### **How many injections do I need to have?**

For a typical vertebra, you need only one injection. You may need additional injections if fractures develop in other vertebrae.

### **How will I know if it will help?**

It is very difficult to predict how helpful injections will be. Generally, patients who have severe back pain near the fracture site with minimal “radiating” pain from the site will do very well. However, there are other pain generators in the area. Sometimes, in addition to the compression fracture, the patient may have pain from inflamed facet joints, bulging disks, etc. Typically, your doctor will do this procedure only if the fracture is somewhat recent (usually occurring within the previous six months) and an MRI confirms the presence of an active inflammation at the fracture site.

## What are the risks and side effects?

Overall, this procedure has few risks. However, as with any procedure, there are some risks and side effects you should know about. Commonly encountered side effects are increased pain from the injection (usually temporary), inadvertent puncture of the “sack” containing spinal fluid (may cause headaches), infection, bleeding, nerve damage, or no relief from your usual pain.

## Who should not have this injection?

The following patients should not have this injection: if you are allergic to any of the medications to be injected, if you are on a blood-thinning medication (e.g. coumadin, injectable heparin), or if you have an active infection going on.