

Vertebroplasty: a simple solution for spinal fractures

Patient Education





This information

is designed to answer some of your questions regarding your bone health and help you make informed decisions as you and your doctor determine how to treat your spinal fracture(s) related to spinal tumors or osteoporosis.

How do spinal fractures occur?

Spinal fractures are most commonly caused by osteoporosis. However, they may also be a result of metastatic tumors or even back trauma. The pain from these fractures is typically considerable and frequently interferes with daily living.

It is estimated that one half of all women and one quarter of all men over the age of 50 will suffer an osteoporosis-related fracture in their lifetime. Nearly half of the 1.5 million osteoporosis-related fractures each year are spinal fractures.¹



What is osteoporosis?

Osteoporosis is defined as a loss of bone mass and a weakening of bone tissue. Bones become weak and fragile and are at greater risk for fractures. Osteoporosis is considered a “silent disease” because bone loss occurs without symptoms. People often don’t know that they have osteoporosis until a sudden strain, bump or fall causes a fracture. These fractures may occur in the wrist, hip, shoulder or ribs and most commonly, in the vertebrae. The vertebrae are the bones in your back that make up your spinal column and protect the spinal cord.¹



How common is osteoporosis?

It is estimated that 10 million Americans already have osteoporosis. Another 34 million, or 55% of people over the age of 50, have low bone mass putting them at risk for the disease. Of the 10 million already suffering from osteoporosis, 80% are women. Osteoporosis can occur at any age, but it is most common in older people.



Healthy spine



Spine with osteoporosis-related fracture



How can your spinal fracture be treated?

Standard therapy to treat a fracture and relieve the pain includes pain medication, back bracing and bed rest. Surgery is not typically used to treat vertebral fractures. For patients who do not find relief from standard therapy, a minimally invasive procedure called vertebroplasty has been shown to have positive effects.²



A needle is placed under x-ray guidance



Bone cement is injected to mend the fracture



What is vertebroplasty?

Vertebroplasty is a relatively short procedure. During this procedure, a needle is inserted through the skin and into the crushed or fractured vertebral body. Acrylic bone cement, which is used in other bone and joint procedures, is slowly injected into the bone. This cement hardens and stabilizes the fractured or collapsed vertebral body.²

How will the procedure be performed?

The procedure is typically performed in a hospital or an outpatient setting. A local anesthesia is given to prevent pain during the procedure. Patients are also given light IV sedation which increases their comfort and allows them to lie very still during the procedure. Some patients require general anesthesia. Following the procedure, patients are usually monitored for one to two hours or until their doctor determines it is safe for them to get up, move around and be discharged. Some patients are kept overnight for observation following the procedure.^{2,3}

How does vertebroplasty work?

It is believed that the bone cement supports and stabilizes the vertebrae, providing pain relief and an increased ability to move around.² Some patients experience immediate pain relief following the procedure. Many patients experience a significant level of pain relief within 24 hours.⁴



What are the risks of vertebroplasty?

There are certain risks associated with vertebroplasty. Most complications are rare and are not severe; however, all complications should be carefully considered and discussed with your doctor.²

Is vertebroplasty the solution for you?

Many spinal fractures are successfully healed using traditional therapy. Vertebroplasty offers another option for patients with persistent pain related to fractures. Certain conditions may make vertebroplasty more or less likely to provide relief. Please talk to your doctor to see if this procedure is right for you.²

Clinical references

- ¹ National Osteoporosis Foundation (NOF): Disease Statistics on Osteoporosis. Available at: <http://www.nof.org> (accessed 8/29/02).
- ² Predey TA, Sewall LE, and Smith SJ. Percutaneous Vertebroplasty: New Treatment for Vertebral Compression Fractures. *American Family Physician* 2002; 66:4,611-615
- ³ Society of Interventional Radiology (SIR): Vertebroplasty. Available at: <http://www.sirweb.org> (accessed 11/16/02)
- ⁴ McGraw JK, Lippert JA, Minkus KD, et al. Prospective Evaluation of Pain Relief in 100 Patients Undergoing Percutaneous Vertebroplasty: Results and Follow-up. *J Vasc Interv Radiol* 2002; 13:883-886

Would you like more information?

To learn more about vertebroplasty,
please visit the following web sites.

Society of Interventional Radiology at
www.sirweb.org

National Osteoporosis Foundation at
www.NOF.org

Ask your doctor if vertebroplasty is the
solution for you.