Vertebroplasty

The goal of the vertebroplasty is primarily to relieve the pain caused by the fracture, although it may also help stabilize the fractured bone as well. Vertebroplasty is considered a minimally invasive surgical procedure because the procedure is done through a small puncture in the patient's skin (as opposed to an open incision). A typical vertebroplasty procedure, described below, usually takes about 1 hour to complete.

1. The patient is treated with local anesthesia and light sedation, usually in an x-ray suite or operating room on an outpatient basis.
2. A biopsy needle is guided into the fractured vertebra (bone) under x-ray guidance through a small puncture in the patient's skin.
3. Specially formulated acrylic bone cement (PMMA) is injected under pressure directly into the fractured vertebra, filling the spaces within the bone—with the goal of creating a type of internal cast (a cast within the vertebra) to stabilize the vertebral bone.
4. The needle is removed and the cement hardens quickly (about 10 minutes), sealing the fragments of the fractured vertebra and stabilizing the bone.
5. The small skin puncture is covered with a bandage.

Shortly after the cement has hardened, the patient is free to leave the medical facility and can go home the same day. Patients are usually advised not to drive themselves home the day of the procedure. If the patient needs further observation after the procedure, is particularly frail, or will not have assistance at home, a short stay in the hospital may be recommended.

Recovery from Vertebroplasty

Activities may be increased gradually and most regular medications can be resumed. There may be some soreness for a few days at the puncture site which may be relieved with an ice pack. Results can vary, but pain relief typically occurs in one to seven days. Patients with persistent pain after vertebroplasty may have other causes of pain that could require different treatments.

Potential Risks and Complications of Vertebroplasty

Complications are rare with vertebroplasty but include infection, bleeding, numbness/tingling, increased back pain, and paralysis. Other risks include cement leaking into the vertebral canal leading to spinal cord or nerve root compression, venous embolism (a blood clot that forms within a vein), pulmonary embolism (one or more blood clots blocking an artery in the lungs), and risks of anesthesia. It is not yet known whether vertebroplasty increases the risk of another fracture in the spine or ribs, but it is known that a patient sustaining and a compression fracture from osteoporosis is at risk for additional fractures.