



DID YOU KNOW?

Vertebral compression fractures are often a result of osteoporosis, a disease where the mineral density of the bone is reduced. Even mild stress, such as coughing, can create a fracture of an osteoporotic vertebra.



Southwest Neurospine Institute is the first in El Paso to offer a minimally invasive procedure using the Mazor Robot. This advanced technology, combined with the expertise of Dr. Martin, may provide less rehabilitation from surgery and get patients back to normal activities much more quickly.

If you suffer from back pain, log onto www.swnsi.com to learn more about robotic spine surgery.

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For more information on spine surgery visit
www.MazorRobotics.com

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Vertebroplasty



Renaissance

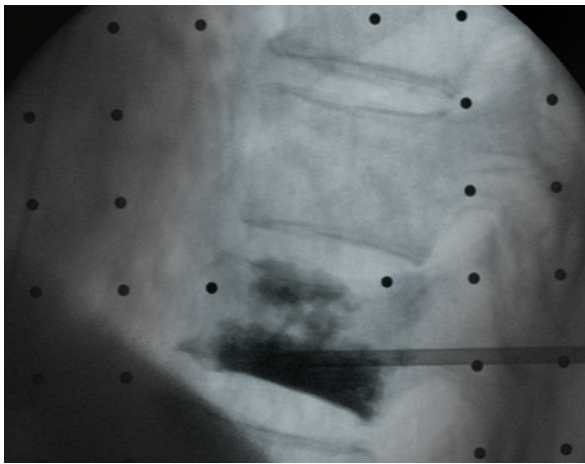
From Art to State of the Art

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Vertebroplasty with Mazor Robotics Renaissance™

What is vertebroplasty?



Vertebroplasty can be performed as an outpatient procedure with local anesthesia for treating compression fractures of the spine. The purpose of the procedure is to stabilize the fracture to relieve pain and help prevent further weakening of the spine. Vertebroplasty is a minimally-invasive procedure performed through a small incision requiring a high level of precision.

What happens during the vertebroplasty procedure?

During the vertebroplasty procedure, synthetic bone cement is injected through a needle into the fractured vertebra to fill the spaces in the bone. After the needle is removed, the bone cement hardens in 10 minutes, stabilizing the fractured vertebra. Finding the right spot for injection can be challenging. Surgeons must accurately place the needle in the precise location to avoid spillage, which can create pressure on the nerve canals. To compensate for the lack of direct visual accessibility, surgeons usually need high levels of X-ray radiation (or, fluoroscopy) to guide them throughout the procedure.

What are the advantages of vertebroplasty with Mazor Robotics Renaissance?

Renaissance allows surgeons to create a preoperative surgical blueprint, which is a map for pinpointing the precise location for injecting the bone cement. In the operating room, Renaissance guides the surgeon's tools, possibly reducing the use of fluoroscopy.¹

In two separate studies, Mazor Robotics technology was found to reduce the amount of fluoroscopy used by approximately 70 percent compared to conventional vertebroplasty procedures.^{2,3} In addition, Mazor Robotics technology can increase accuracy in a wide variety of spine procedures for improved patient outcomes.¹

1. Kattelhardt SR, Martinez R, Baerwinkel S, Burger R, Giese A, Rohde V. Perioperative course and accuracy of screw positioning in conventional, open robotic-guided and percutaneous robotic-guided, pedicle screw placement. *Eur Spine J.* 2011;20(6):860-868.
2. Silberstein, B. Bruskin, A. Alexandrovskii, V. Robot guided surgery in treatment of osteoporotic fractures. Presented at: European Federation of National Associations of Orthopaedics and Traumatology (EFORT) 2011 Annual Congress; June 1-4, 2011. abs 1097.
3. Zaulan, Y., Alexandrovsky, V., Zilberstein, B., Shoham, M., Roffman, M., Bruskin, A.: "Robotic assisted vertebroplasty: Our Experience With A Novel Approach To The Treatment of Vertebral Compression Fractures," 1st ISMISS Congress on Minimal Invasive Spine Surgery and Interventional Treatments, Ankara, 2008 - best paper award. Also in *ArgoSpine*, Paris, 2008.



Ask your doctor if Mazor Robotics Renaissance Spine Surgery is right for you.