



DID YOU KNOW?

Back pain is the leading cause of disability between the ages of 19 and 45 and the second most common cause (after headaches) of missed work days.

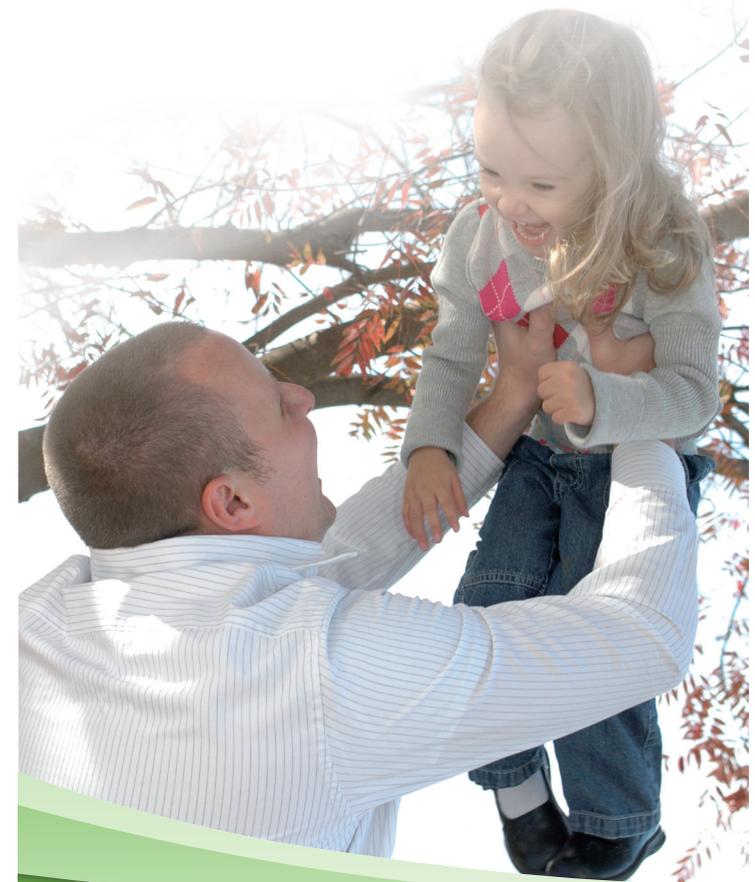
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For more information on spine surgery visit www.MazorRobotics.com

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Spinal Fusion



Renaissance
From Art to State of the Art

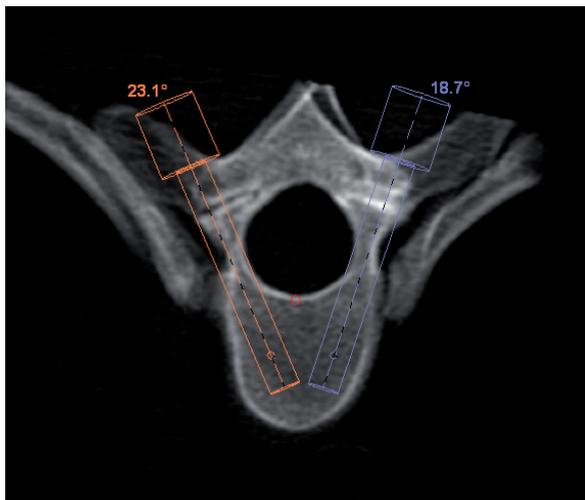
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Spinal Fusion with Mazor Robotics Renaissance™

What is spinal fusion?

Spinal fusion is the process of two or more vertebrae fusing together, immobilizing them to create a single continuous bone. It is used to treat broken vertebra, a spinal deformity, spinal weakness, spinal instability, or chronic low back pain.



Surgeons use a bone graft—extra bone tissue, either from the patient (autograft) or a donor (allograft)—in conjunction with the body's natural bone growth (osteoblastic) processes so that spinal fusion can occur. This bone graft may be in a preformed shape or contained in a cage made of plastic, carbon fiber, or metal. Surgeons often use implanted plates, screws, or rods to hold the vertebrae and graft to promote healing. Once this bone graft heals, the vertebrae are permanently fused.

What type of surgery is needed for spinal fusion?

Surgeons sometimes perform this procedure using an "open" technique, creating an incision that provides a direct line-of-vision to the vertebra, which simplifies the process of inserting the bone graft and implants. However, this may result in damage to surrounding healthy tissue, large scars, and postoperative pain.

Minimally-invasive surgery (MIS) uses smaller incisions and usually results in less postoperative pain and faster recovery.¹ However, MIS requires many intraoperative X-rays (fluoroscopy) to compensate for the surgeon's lack of direct line-of-vision.



Mazor Robotics technology enables surgeons to overcome these limitations and perform precise spinal fusion.



What are the advantages of spinal fusion with Mazor Robotics Renaissance?



Renaissance guides the surgeon's tools and implants in both open and minimally-invasive surgery (MIS), to ensure greater accuracy when compared to freehand conventional spine surgery.¹ This can result in fewer complications, less postoperative pain, and a faster recovery. In addition, with Mazor Robotics Renaissance Guidance System, the surgeon may require less fluoroscopy during surgery.²



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

1. Allen RT, Garfin SR. The Economics of Minimally Invasive Spine Surgery. *Spine*. 2010;35(26):375-382.
2. Kuntelhardt 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.