



# DID YOU KNOW?

Idiopathic means a disease of unknown cause. Researchers discovered a gene that is believed to be associated with adolescent idiopathic scoliosis only a few years ago.

Reference: Ogilvie JW, Braun J, Argyle V, Nelson L, Meade M, Ward K. The search for idiopathic scoliosis genes. *Spine*. 2006;31(6):679-81.



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](http://www.swnsi.com) to learn more about robotic spine surgery.

1725 Brown St.  
El Paso, TX 79902

(915) 590 - 2225

MKC0071-01 Rev.B



For more information on spine surgery visit [www.MazorRobotics.com](http://www.MazorRobotics.com)

© 2013 Mazor Robotics Ltd. All rights reserved.

# Scoliosis



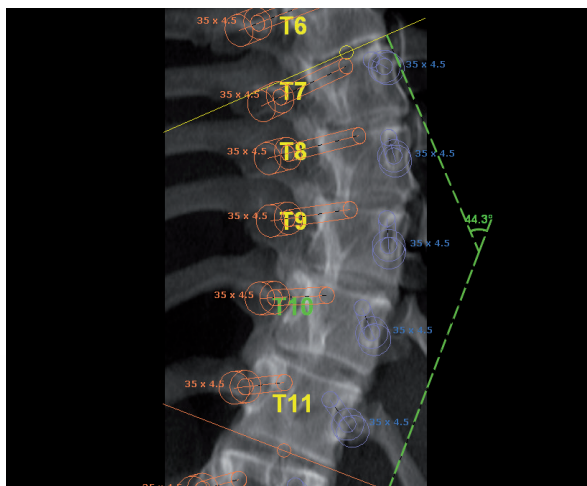
[www.MazorRobotics.com](http://www.MazorRobotics.com)



# Scoliosis Surgery with Mazor Robotics Renaissance™

## What is adolescent idiopathic scoliosis?

Adolescent idiopathic scoliosis is an abnormal C-shaped or S-shaped curvature of the spine. The curvature of the spine is measured by the Cobb angle.



A Cobb angle greater than 15° is considered scoliosis.

## What are the symptoms?

Symptoms of adolescent idiopathic scoliosis include back pain, unequal leg lengths, uneven hips, uneven shoulders (one shoulder appears higher than the other), abnormal gait, as well as breathing difficulties when the rib cage puts pressure on the lungs. When left untreated, the deformity might progress significantly.

## How is adolescent idiopathic scoliosis treated?

For milder cases, your doctor may recommend nonsurgical treatment such as bracing. Braces are usually worn for several hours daily. This can be effective if the child is still growing and has a Cobb angle between 25° and 45°.

In progressive cases, or when the Cobb angle is greater than 45°, your doctor may recommend surgery to straighten and fixate the spine, by placing implants such as screws, rods, hooks, and wires in and along the spine.

## What are the advantages of treatment with Mazor Robotics Renaissance compared to other methods?

Surgical treatment of adolescent idiopathic scoliosis requires planning and precision. Each scoliotic curvature has unique challenges, and often the patient's vertebrae are deformed, twisted and abnormally small, which makes for a challenging surgery.

Renaissance provides increased safety and precision in corrective surgery. It allows surgeons to plan ahead before entering the operating room; Mazor Robotics advanced 3D planning software is used before surgery to create the ideal procedure for each patient's condition. During the operation, the physician does the actual work; Renaissance guides the surgeon's tools according to the predetermined blueprint to place the implants safely and with the highest level of accuracy in the exact planned locations.



Small spinal curves occur with similar frequency in boys and girls, but girls are more likely to have a progressively larger scoliotic curve requiring treatment.



Surgery treats but does not cure scoliosis. It corrects the abnormal curvature and prevents further progression of the disease.



A clinical study presented at a Pediatric Society of North America (POSNA) conference reported 99.6 percent clinical acceptance of screws placed in 120 adolescent scoliotic surgery cases performed with Mazor Robotics Renaissance Guidance System.<sup>1</sup>



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

1. Devito DP, Gaskill T, Erikson M, Fernandez M. Robotic Assisted Image-based guidance for pedicle screw instrumentation of the scoliotic spine. Presented at Pediatric Society of North America (POSNA); May 2011; Montreal, Canada.