

Scoliosis Surgery

Scoliosis affects about four out of every 100 people between the ages of 10 and 18. You will only need to consider surgery though, if the curvature of your spine is 45 degrees or more. To put this in context, if you take a sample of a thousand people, 40 will have some kind of scoliosis, ranging from mild to severe. Of these 40 people, 12 may need to use a brace, and 4 may benefit from surgery.

Surgical Procedures for Scoliosis

When spinal curves progress to a more significant degree, surgery may be the best option. For those who may benefit from surgery, the two options are spinal fusion and vertebral body tethering.

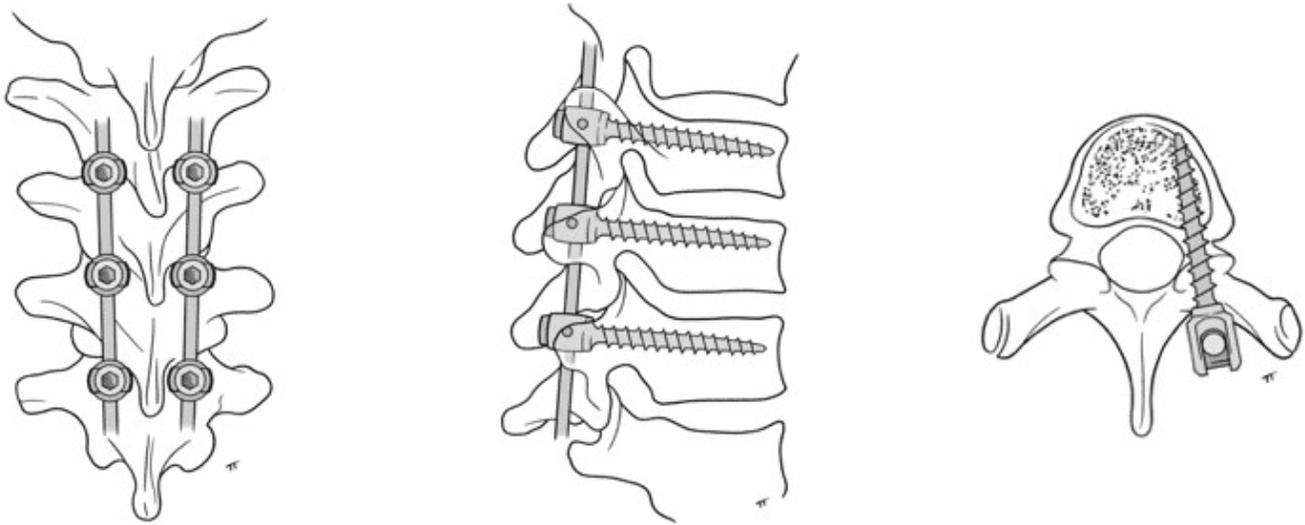
Fusion Spine Surgery

Spine fusion involves joining two or more individual bones to make one unit.

Posterior Fusions

These are the most common scoliosis surgeries. Spine surgeons correct most curves by going through a patient's

back. They then attach screws or anchors to the individual bones of the curve, connect the anchors with smooth rods, and then move the spine into a more straight position.



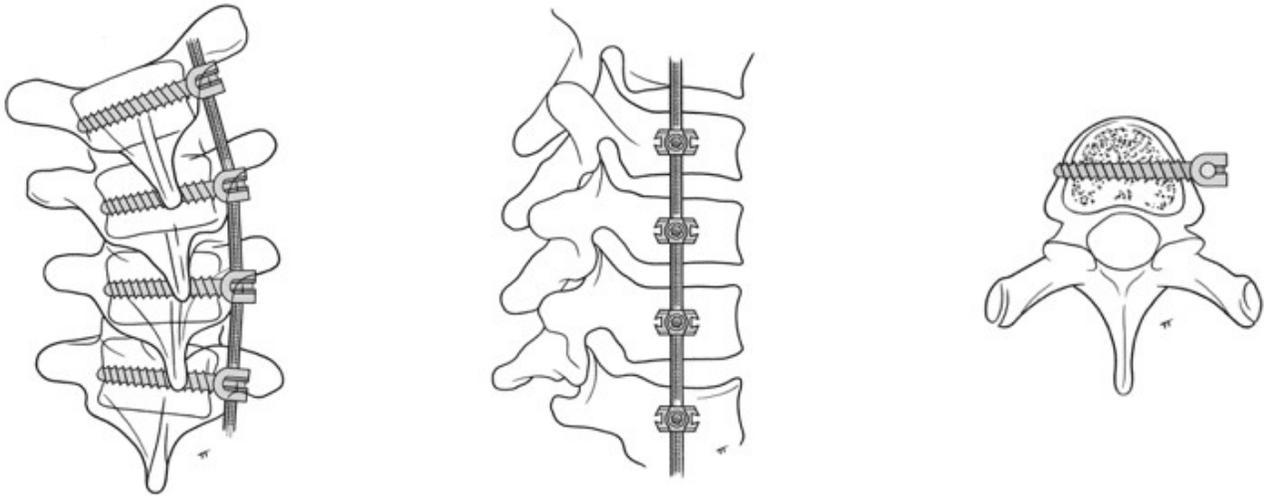
Illustrations by Tim Trost © 2020

Anterior Fusions

Spine surgeons can stop some curves from progressing by fusing the front of the spine. A spine surgeon works with a general surgeon to open the chest or abdomen through the side. The surgeon may insert screws and a smooth rod to hold the spine in place while fusion occurs.

Vertebral Body Tethering

Recent advances in the treatment of AIS include strategies that harness the body's growth to correct the spine deformity without the need for spinal fusion. In this surgery, a spine and a general surgeon work together to go through the chest or abdomen, placing screws in the vertebral bodies on the convexity (outside) part of the curve and connecting the screws with a strong rope (tether). The tether is tensioned to slow down growth on the curve convexity while allowing for continued growth on the concave (inside) part of the curve. As such, the body's natural growth allows for curve correction with time. Because the success of the procedure relies on spine growth after the procedure, patients need to meet very specific criteria to be a candidate for this surgery.



Illustrations by Tim Trost © 2020

For patients with early onset scoliosis with larger spine curves, magnetically controlled growing rods may be needed to help control the curve while the child continues to grow.

Magnetically Controlled Growing Rods

Magnetically controlled growing rods can be surgically inserted on the spine. These rods have the ability to be lengthened a small amount during a routine clinic visit through the utilization of an external remote control every three to six months. The goal with magnetically controlled growing rods is to allow a child's spine to continue growing while minimizing the need for multiple repeat surgeries and preventing rapid progression of the curve.

[Scoliosis Surgery Explained - Video](#)

Appointment: 651-290-8707

Refer a Patient: 651-325-2200

Pediatric Expert Consult (<https://www.gillettechildrens.org/conditions-care/pediatric-expert-consult>)

More Ways to Contact Us (<https://www.gillettechildrens.org><https://www.gillettechildrens.org/contact-us>)

This information is for educational purposes only. It is not intended to replace the advice of your health care providers. If you have any questions, talk with your doctor or others on your health care team.

If you are a Gillette patient with urgent questions or concerns, please contact Telehealth Nursing at [651-229-3890](tel:651-229-3890).