



Scoliosis and Treatment Options

What is scoliosis?

A disorder of the spinal column that causes the back to have one or more curves

- For children with scoliosis, their spine curves from side to side.
- It is only when these curves become too large that they present a potential problem.
- On an x-ray, the spine with scoliosis looks more like an “S” or a “C” than a straight line.
- The bones of a scoliosis spine may also be rotated or twisted. As the spine twists, it may pull the ribs and pelvis.
 - This may give the appearance that a person's shoulders and hips are uneven, sometimes giving the impression of poor posture.

What causes scoliosis?

- There are many different causes of abnormal spinal curves. Some children are born with spinal defects that cause the spine to grow unevenly, a condition referred to as “congenital scoliosis.”
- While scoliosis is rarely a problem for an adolescent, it may lead to increased back pain and breathing difficulty if large curves continue into adulthood.
- Although the cause is unknown, “idiopathic scoliosis” is the most common type of scoliosis.
- Once detected, it is important to see a pediatric orthopaedic surgeon to have the curve evaluated and monitored.
 - The patient will undergo a physical exam and x-rays will be taken to measure the degree of the curve.
 - This will help you and your pediatric orthopaedic surgeon decide which treatment option is best.

Who gets idiopathic scoliosis?

- Affects 2% of the population
- Idiopathic scoliosis may run in families and is usually detected during stages of rapid growth, particularly puberty.
- Girls are more likely than boys to have scoliosis, but both genders are affected.
- Many people have mild scoliosis but are unaware of it and do not need treatment

Management of scoliosis

- Depends on the location, shape, pattern, and degree of curvature.
 - Small curves (less than 25 or 30 degrees), usually do not require treatment, but must be watched carefully during growing years.
 - Curves greater than 30 degrees may require treatment to prevent further progression.
- Treatment options include observation, a brace, or surgery.

Observation

- Your doctor may recommend that your curve be monitored only.
 - This may require frequent visits and x-rays, especially during periods of growth, to monitor for progression.
- Typically, observation is recommended for smaller curves.

Braces (Orthotics)

- Bracing is an option for some individuals with scoliosis. Candidates for bracing typically have curves over 25 degrees and have at least two years of growth remaining.
- A brace may help to avoid or prolong the need for surgical intervention.
 - Your doctor and a brace specialist design the scoliosis brace especially for you and your particular curve.
- A brace is made of firm plastic and can be worn under clothing. It holds the spine straighter and tries to prevent the curve from increasing while you are growing.
- Children with a brace can participate in all activities with the brace. Some braces are worn just at night, while others are designed to be worn full time.

Surgery

- For curves greater than 45-50 degrees, surgery is usually recommended. The most common surgery is called a spinal fusion.
- The goals of surgery are to straighten the curve and prevent progression of the curve. This is achieved by using rods, screws, and wires to straighten the spine and then fuse the bones of the spine together
- More information regarding surgical intervention will be provided as needed.

Are there other treatment options?

- Individuals and families with a scoliosis diagnosis are often willing to try alternative modalities to improve or correct their deformities.
 - This may include physical therapy, chiropractic manipulation, dietary supplements, and others options.
 - To date, research has not proven any of these techniques to be successful. While exercise may not prevent the progression of a back curvature, it is encouraged for the overall effects on general health and well-being.

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