

Adolescent Idiopathic Scoliosis: Does a Child You Know Have Signs of This Spinal Deformity?

by Max W. Cohen, MD, FAAOS

You may be surprised to learn that adolescent idiopathic scoliosis is the most common form of spinal deformity, affecting about three percent of the general population.

What is adolescent idiopathic scoliosis?

Scoliosis is a term used to describe an abnormal sideways curvature of the spine. **Idiopathic** means that there is no known cause for the scoliosis – it is not a result of trauma or injury, activity or exercise, carrying heavy items, or posture. The word **adolescent** refers to the age group when scoliosis usually is diagnosed.

Who is mostly likely to develop this?

The main risk factors for developing this condition are:

AGE: Signs and symptoms typically begin during the growth spurt that occurs just prior to puberty. This is usually between the ages of 9 and 15.

GENDER: Boys and girls develop mild scoliosis at about the same rate, but girls have a much higher risk of the curve worsening and requiring treatment.

FAMILY HISTORY: Scoliosis appears to run in families, so it is likely hereditary. Many children with scoliosis have a family history of this condition.

What are the signs and symptoms?

Scoliosis is often painless. When people with scoliosis see a spine specialist, it's usually because they have noticed a problem with the way their back looks:

- One shoulder or hip may be higher than the other.
- One shoulder blade may be higher and stick out farther than the other.
- A "rib hump" may develop. This is a hump on your back that sticks up when you bend forward. It occurs because the ribs on one side angle more than those on the other side.
- One arm hangs longer than the other because of a tilt in the upper body.
- One leg may appear shorter than the other.
- The waist may appear asymmetrical.

If the scoliosis progresses, back pain can eventually develop. As it becomes severe, scoliosis can cause deformity of the chest, which may affect the lungs and heart. This can cause



breathing problems, fatigue and even heart failure. Fortunately these severe symptoms are rare.

How is it diagnosed?

Mild curves of the spine sometimes go unnoticed, especially if a child doesn't wear form-fitting clothing or a bathing suit often. Frequently, parents and pediatricians first recognize a curve after a child has undergone a significant growth spurt, usually during puberty. This is when a curve can progress very rapidly in a short

period of time.

The diagnosis of idiopathic scoliosis typically is made through an examination and x-rays that confirm the suspected curve.

How is it treated?

The doctor will consider treatment options based on:

- whether the patient is still growing, and
- how significant the curve is.

If the patient is nearly finished growing and the curve is mild, no treatment is warranted. However, if the patient is still growing, x-rays should be done at regular intervals to monitor curve progression. If the curve is larger, a back brace or even surgery may be recommended.

A brace doesn't improve an existing spinal curve. However, it may prevent progression of a curve. A brace needs to be worn as much as possible – day and night – to increase its effectiveness. Unfortunately, even with a brace, curves can progress. A brace can be discontinued once bones stop growing, as the curve is unlikely to progress any further.

Surgery to correct idiopathic scoliosis is recommended for severe curves. Surgery involves a spinal fusion using screws and rods. This can reduce the curve significantly and prevent it from worsening in the future. After recovering from surgery, the patient can often participate in the same daily activities and sports that anyone else can.

For more information

If you think someone in your family may have undiagnosed scoliosis or if you would like more information on scoliosis treatment options, you can make an appointment for a consultation online at www.TriadSpine.com or by calling our office at **336-333-6306**.



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Patients who develop a large curve as a result of scoliosis often need surgery. The patient above had an 80 degree curve, which was corrected to 15 degrees in surgery performed by Dr. Cohen.

Max W. Cohen, MD, FAAOS, the founding physician of **Spine & Scoliosis Specialists**, is the only doctor in the Triad with double fellowship training in spine and scoliosis surgery. He has treated tens of thousands of patients and performed thousands of surgeries since he began practicing in 2002. He completed his training at Cornell University's prestigious Hospital for Special Surgery, the top-ranked orthopaedics hospital in the U.S., according to U.S. News & World Report.

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Max W. Cohen, MD, FAAOS • Thomas R. Saullo, MD • Ruben Torrealba, MD

2105 Braxton Lane, Suite 101 • Greensboro, NC 27408
4590 Premier Drive • High Point, NC 27265