



## Scoliosis Information for Parents

This information is being provided to families of students in grades 5-10 as directed by the Virginia General Assembly (HB # 1834).

### What is scoliosis?

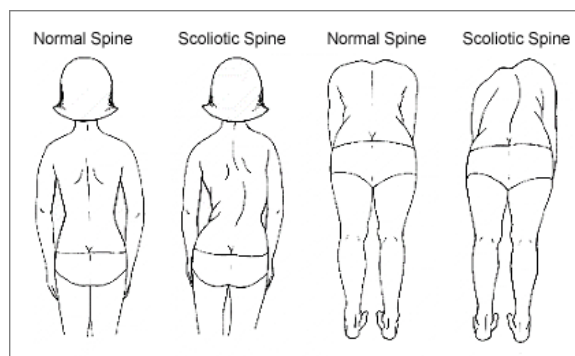
A normal spine, when viewed from behind, appears straight. However, a spine affected by scoliosis has a sideways curve, making it appear like an “S” or a “C”. Scoliosis is a type of spinal deformity that should not be confused with poor posture. Scoliosis can occur at any age, but the most common type occurs in teens and preteens as they go through their growth spurt.

Scoliosis occurs in 2-3 percent of adolescents by the end of their growth period. Mild curves generally do not cause problems. However, 3-5 out of every 1,000 adolescents have curves large enough to warrant treatment. Progressive, untreated scoliosis can lead to limited motion, back pain, deformity, and in extreme cases impaired function of the heart and lungs. Early detection and treatment may prevent scoliosis from progressing.

A simple check for scoliosis is part of a routine physical exam. However, it would not normally be detected at routing visits for illnesses such as colds and sore throats. Parents/guardians are strongly encouraged to have their child evaluated by their primary care provider for scoliosis as part of a regular checkup.

### What are the signs of scoliosis?

- One shoulder may be higher than the other.
- One scapula (shoulder blade) may be higher or more prominent than the other.
- With arms hanging loosely by the side, there may be more space between the arm and the body on one side.
- One hip may appear higher or more prominent than the other.
- The head is not centered over the pelvis.
- When the patient is examined from the rear and asked to bend forward until the spine is horizontal, one side of the back appears higher than the other.



## What causes scoliosis?

In most cases (80 to 85%), the cause of scoliosis is unknown, a condition called *idiopathic scoliosis*. Scoliosis is more common in females than males. It commonly affects adolescents as they complete their last major growth spurt between ages 10 and 18. Idiopathic scoliosis frequently runs in families and may be due to genetic or heredity influences.

## How is scoliosis diagnosed?

Scoliosis is suspected on physical exam when any of the above signs are noted. If a significant curve is suspected, an x-ray is done to measure the actual angle of the curve in the spine. The Scoliosis Research Society defines scoliosis as a curvature of the spine measuring 10 degrees or greater on x-ray. The physician will look for signs in the medical and family history as well as the physical examination that suggest an underlying cause for scoliosis. If this is suspected, other tests may be done.

## Treatment of scoliosis

The goal of treatment is to stop the progression of the curve and avoid long-term problems. Treatment depends on the degree of the curve and the amount of growth the child is expected to have.

- **Observation and repeated examinations** are done for smaller curves, to determine if the spine is continuing to curve. Curve progression normally slows down or stops after a child reaches puberty. However, it is important to follow up every 4-6 months or as instructed, to be sure no further treatment is necessary.
- **Bracing** may be used when the curve measures between 25 to 40 degrees on an x-ray, but skeletal growth remains. The type of brace and the amount of time spent in the brace will depend on the adolescent's condition. Modern braces often can be hidden under clothing.
- **Surgery** may be recommended when the curve measures 50 degrees or more on an x-ray and bracing is not successful in slowing down the progression of the curve.

According to the Scoliosis Research Society, there is no evidence to show that other methods for treating scoliosis (i.e. manipulation, electrical stimulation, and corrective exercise) prevent the progression of the disease.

## Long-term outlook for an adolescent with scoliosis:

The management of scoliosis is individualized for each adolescent depending on age, amount of curvature, and amount of time remaining for skeletal growth. Scoliosis will require frequent examinations by the adolescent's doctor to monitor the curve as the child grows and develops. Early detection and follow-up is very important to prevent the serious consequences that can occur from untreated scoliosis.

If you have any concern that your child may have scoliosis, or if your child has not had a routine physical exam in the past year, we urge you to make an appointment with your child's primary care physician.

For more information see:

[www.SRS.org](http://www.SRS.org)  
[www.familydoctor.org](http://www.familydoctor.org)

This information was developed in consultation with the University of Virginia Department of Pediatric Orthopedics.