

Scoliosis

Scoliosis is an abnormal curvature of the spine. It is most common in girls during puberty. Depending on the degree of your child's scoliosis, evaluation and treatment by a bone and joint specialist may be needed.

What is scoliosis?

Scoliosis is a curve that develops in the spine as your child grows. It occurs most commonly in teenage girls as they go through puberty. Many causes are possible, but usually no particular cause is found (that is, it is "idiopathic"). Scoliosis may range from mild, requiring no treatment, to severe, requiring bracing or surgery. If your child's scoliosis is more than mild, your doctor will probably recommend that you visit a bone and joint specialist (an orthopedic surgeon).

What does it look like?

The curve is most noticeable from the back as your child bends forward—the ribs on one side of the back look higher than on the other side. You may also see that the spine is not straight and a side-to-side curve is present.

- The curve may first be noticed on a routine school screening program.
- Your child's shoulders may be at different heights. One hip may seem higher than the other.
- Back pain may indicate more severe scoliosis or the presence of additional spinal problems. Children with idiopathic scoliosis usually don't have significant back pain.
- Symptoms involving the nervous system, such as weakness, increased muscle tightness, or trouble controlling urination, often means scoliosis is not the only problem. A complete medical evaluation would be needed.
- X-rays may be taken to diagnose your child's scoliosis and see how much of a curve is present.

What causes scoliosis?

There are many possible causes of scoliosis, but the most common type is idiopathic. This simply means that no particular cause can be identified. Idiopathic scoliosis most often develops in adolescents, age 11 or older. It is less common in children between 4 and 10 years old, and even rarer in babies and toddlers. Idiopathic scoliosis seems to run in families.

Several other causes of scoliosis are possible. For most of these, other abnormalities are present as well:

- *Congenital scoliosis.* Abnormal spinal curve is already present at birth or develops soon afterward.
- *Neuromuscular scoliosis.* Abnormal spinal curve can occur as a complication of various diseases affecting the nerves and muscles (for example, cerebral palsy, spinal cord tumors or injuries, or polio).
- *Other genetic conditions.* Scoliosis can occur in children with some uncommon genetic diseases (such as neurofibromatosis or Marfan's syndrome).
- *Unequal leg length.* If your child's legs are different lengths, this may look like scoliosis. Careful evaluation may be needed to determine whether scoliosis is really present.

What are some possible complications of scoliosis?

- The main complication is that the abnormal spinal curve will get worse over time.
- Very severe scoliosis can result in difficulties with the spinal joints or in heart and lung problems. These serious complications occur mostly in children with neuromuscular causes of scoliosis.

What puts your child at risk of scoliosis?

- If you or others in your child's family have had scoliosis, your child may be at greater risk.
- Girls are at higher risk of having scoliosis than are boys. Girls are also more likely to have worsening scoliosis requiring treatment.
- Although scoliosis is less common in children under 11, it can be more difficult to treat in younger children.
- Scoliosis is a possible complication of various diseases or genetic disorders (such as cerebral palsy and spinal cord tumors or injuries, neurofibromatosis, or Marfan's syndrome).

Can scoliosis be prevented?

There is no known way to prevent scoliosis, especially the idiopathic form. Treatment may help to prevent scoliosis from getting worse.

How is scoliosis treated?

Treatment for scoliosis depends on the severity of the abnormal spinal curve and the chance that it will get worse over time.

- *Observation.* Most children with scoliosis do not need treatment because they have only a mild spinal curve. If your child's scoliosis is more severe, he or she will probably be sent for evaluation by an orthopedic surgeon.
- *Bracing.* If your child has more severe scoliosis or has a high likelihood of worsening spinal curve, a brace may be recommended. Braces are useful only if your child is not yet finished growing. Bracing doesn't return the spinal curve to normal but may help keep it from getting worse.
- *Surgery.* If your child's scoliosis is quite severe, or if it gets worse despite bracing, surgery may be recommended. Surgery is the only treatment that can actually reduce the spinal curve. Although surgery is sometimes needed for children with severe idiopathic scoliosis,

most children who undergo surgery have other causes of scoliosis.

- Other treatments for scoliosis—including exercise, physical therapy, electrical stimulation, and chiropractic treatment—have not been proven to be effective.

When should I call your office?

Call our office if:

- Your child has any other symptoms related to scoliosis, especially back pain.
- Your child has any neurologic symptoms, such as weakness, increased muscle tightness, or trouble controlling urination. 