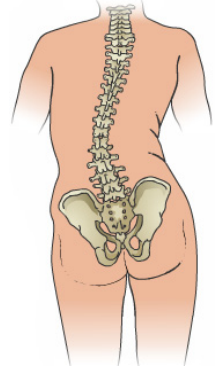


Scoliosis

Introduction

Scoliosis causes your spine, or backbone, to curve sideways. These curves can look like the letter S or C. Scoliosis happens most often during times of fast growth, such as late childhood and the early teen years. If a person has mild scoliosis, he or she may only need checkups to find out whether the curve is getting worse. In other cases, wearing a brace or having surgery may be needed.

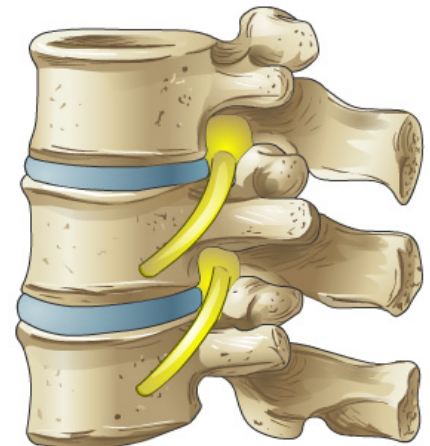


This reference summary explains scoliosis in children. It covers the symptoms, causes, diagnosis and treatment of the disorder.

The Spine

The spinal cord is a long bundle of nerves that descends down the back. It connects the brain to the arms, legs and trunk. The nerves send orders from the brain to the muscles, organs and limbs. They also carry sensations like pain to the brain from different parts of the body.

The spine is formed of solid vertebrae. The human body has 24 movable vertebrae. The vertebrae are separated by softer disks. They allow the spine to bend and flex. They also absorb shock and vibration between the vertebrae when a person is walking or running. Two joints link each two vertebrae. These are the facet joints. They are located toward the back and on both sides of the vertebrae. These joints allow the vertebrae to move painlessly. The spine is joined to the pelvis, or hip, by the sacroiliac joints.



Vertebrae

Every person's spine curves normally from front to back, but not side to side. A certain amount of curvature is needed for balance and movement, including standing and walking. But normally the spine forms a straight line, side to side, down the middle of the back.

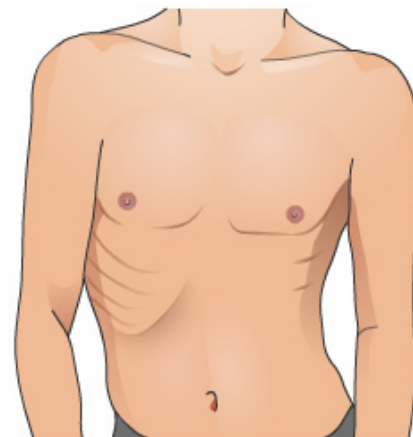
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Symptoms

People of all ages can have scoliosis. But it most commonly happens in people between the ages of 10 and 15. This is the time when children are growing quickly.

Scoliosis can develop slowly. Symptoms of scoliosis include:

- Back pain.
- Difficulty breathing.
- One shoulder blade that sticks out further than the other.
- Uneven shoulders, waist or hips.



If scoliosis gets worse, the spine can also rotate or twist. This can cause the ribs to stick out further on one side than on the other side of the body. If you or your child has these symptoms or other changes, talk to a health care provider.

Causes

In most people with scoliosis, the cause is not known. Girls are much more likely to develop severe cases of scoliosis than boys.

Scoliosis may be classified as:

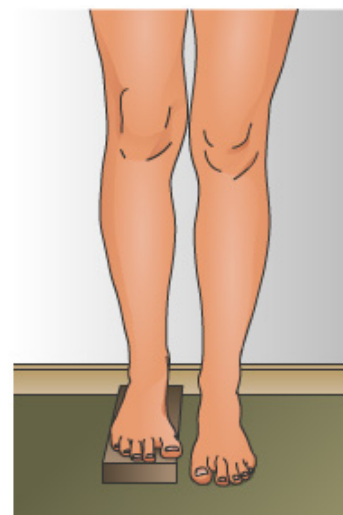
- Nonstructural.
- Structural.

Nonstructural scoliosis is when the structure of the spine is normal. The curve is temporary and may be caused by:

- Having legs that are different lengths.
- Inflammation.
- Muscle spasms.

Structural scoliosis is when the spine has a fixed curve. The cause could be:

- Birth defect.
- Disease.
- Infection.
- Injury to the spine.



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If the cause cannot be found, a person is said to have "idiopathic" scoliosis. Idiopathic scoliosis is by far the most common type. Scoliosis can run in families. A child who has a parent, brother or sister with scoliosis should have regular checkups by their health care provider.

Diagnosis

Your health care provider will ask about your symptoms, your medical history and your family's medical history.

A physical exam will be performed. Your health care provider may have you or your child stand and then bend forward from the waist, with arms hanging loosely. This is to see if one side of the rib cage sticks out more than the other. Your health care provider may also perform a neurological exam. This exam checks for muscle weakness or abnormal reflexes.

Imaging tests can help confirm a diagnosis of scoliosis. These tests can also reveal the extent of the curve in the spine. Imaging tests that may be done include:

- X-rays.
- MRI.
- CT scan.
- Bone scan.



An MRI uses strong magnets to create images of the inside of the body, including bones and soft tissue. A CT scan is an x-ray machine linked to a computer. A CT scan takes a series of detailed pictures of your organs. Many images taken from different angles are combined to create a more complete picture of the structures inside the body.

During a bone scan, a health care provider injects a very small amount of radioactive material into one of your veins. The material travels through your bloodstream and settles in injured or healing bones. A scanner detects the material and displays an image.



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Treatment

Treatment for scoliosis is based on:

- The person's age.
- How much more he or she is likely to grow.
- The degree and pattern of the curve.
- The type of scoliosis.

People with mild scoliosis might only need checkups every four to six months to see if the curve is getting worse. Others might need to wear a brace or have surgery. Wearing a brace will not cure scoliosis or reverse the curve. But it usually prevents the curve from worsening. Different types of braces are available. Most braces are worn day and night.



Children who wear braces can usually participate in most regular activities. When necessary, kids are often allowed to take off the brace to participate in sports or other physical activities. Braces are no longer worn after the bones stop growing. This typically happens around puberty or when there are no further changes in height.

Surgery may be done to correct a curve or stop it from getting worse. It often involves fusing together two or more bones in the spine. A metal rod or other device may also be placed in the back. These devices are called implants. They stay in the body and help keep the spine straight after surgery.

Surgery is often postponed until after a child's bones have stopped growing. If surgery is needed sooner, an adjustable rod can be inserted. This rod is attached to the top and bottom sections of the spinal curvature. It is usually lengthened every six months.



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Summary

Scoliosis causes your spine, or backbone, to curve sideways. These curves can look like the letter S or C. Scoliosis happens most often in late childhood and the early teen years. The cause is usually unknown. It tends to happen more often in girls than in boys.

Scoliosis can develop slowly. Symptoms of scoliosis include:

- Back pain.
- Difficulty breathing.
- One shoulder blade that sticks out further than the other.
- Uneven shoulders, waist or hips.

Scoliosis is diagnosed after a physical exam and imaging tests. If a person has mild scoliosis, he or she may only need checkups to find out whether the curve is getting worse. In other cases, wearing a brace or having surgery may be needed. If you or your child has symptoms of scoliosis, talk to a health care provider.



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