

## Scoliosis glossary

- **Adams forward bending test:** a screening tool for scoliosis
- **adolescent scoliosis:** a classification of idiopathic scoliosis representing the vast majority of cases—mostly occurring in girls ages 10 to 18, often not needing intervention
- **brace, bracing (spinal orthosis):** If your growing child’s curve shows significant worsening or is already greater than 30 degrees, your physician may recommend a bracing program, in which a scoliosis brace is designed specifically for your child’s particular curve. The brace holds your child’s spine in a straighter position while she is growing in order to partly correct the curve or prevent it from increasing.

There are many types of brace, including the Boston Brace developed at Children’s. A bracing program may help avoid surgery.

- **casting:** an option for holding your child’s spine in a straighter position while she's growing; used in specific situations, as in some cases of early-onset (infantile) scoliosis
- The Center for Families **at Children’s:** dedicated to helping families find the information, services and resources they need to understand their child’s medical condition and take part in their care
- **Cobb angle:** an angular measurement on x-ray to evaluate the severity and degree of scoliosis curves
- **Congenital Scoliosis** The spine forms and develops between three and six weeks after conception. Congenital scoliosis results from abnormal *in utero* spinal development, such as a partial or missing formation or a lack of separation of the vertebrae.
- **diagnosis:** identifying disease or injury through examination, testing and observation
- **(dual posterior) growing rods:** devices affixed to the spine (for early-onset scoliosis). These control spinal deformity while allowing spinal growth with periodic lengthenings.
- **idiopathic scoliosis:** the most common form of scoliosis. “Idiopathic” simply means that there is no definite cause. Nothing you or your child did caused the problem, and there’s nothing you could have done to prevent it.
- **infantile idiopathic scoliosis (one of several types of early-onset scoliosis):** a classification of idiopathic scoliosis representing about 5 percent of cases; the only type of scoliosis occurring more often in boys from birth to 3 years of age, often self-resolving but sometimes serious
- **instrumentation:** the metal rods, hooks, screws and wires implanted during spinal fusion surgery to correct the spinal curve and secure the spine in position while the fusion heals

and becomes solid

- **juvenile scoliosis:** a classification of idiopathic scoliosis representing about 10 percent of cases—occurring in children ages 3 to 9 years
- **neuromuscular:** affecting, or characteristic of, both neural (nerve) and muscular tissue
- **neuromuscular scoliosis:** scoliosis that's associated with disorders of the nerve or muscular systems like cerebral palsy, spina bifida, muscular dystrophy or spinal cord injury
- **orthopedics:** the medical specialty concerned with diagnosing, treating, rehabilitating and preventing disorders and injuries to the spine, skeletal system and associated muscles, joints and ligaments
- **orthopedic surgeon, orthopedist:** a physician specializing in surgical and non-surgical treatment of the spine, skeletal system and associated muscles, joints and ligaments
- **orthotics:** the science of designing and fitting of devices such as braces to treat orthopedic conditions
- **physical therapy:** a rehabilitative health specialty that uses therapeutic exercises and equipment to help patients improve or regain muscle strength, mobility and other physical capabilities
- **progression, curve progression:** worsening of a scoliosis curve
- **scoliometer:** a surface measurement device for evaluating the angle of trunk rotation (ATR or scoliometer angle, which is not the 'Cobb' angle measured on x-ray)
- **scoliosis:** a spinal abnormality in which the spine, in addition to the normal front to back curvature, has an abnormal side-to-side "S-" or "C"-shaped curvature. The spine is also rotated or twisted, pulling the ribs along with it. Scoliosis occurs in three main types: idiopathic (no definite cause), neuromuscular (associated with neuromuscular diseases) and congenital (present at birth).
- **spina bifida (myelodysplasia):** a condition in which there's abnormal development of the back bones, spinal cord, surrounding nerves and the fluid-filled sac that surrounds the spinal cord. This neurological condition can cause a portion of the spinal cord and the surrounding structures to develop abnormally. Scoliosis is often associated with this condition.
- **spinal cord:** a nerve bundle within the vertebral column that extends down from the brain stem. It conducts signals in both directions between the brain and extremities, and allows for bodily motion and sensation.

- **spinal abnormality (spinal problem):** a condition in which the spine develops abnormally—for example, congenital scoliosis or congenital kyphosis. Some are the result of nerve or muscle (neuromuscular) diseases, injuries or illnesses—for example, cerebral palsy, spina bifida, or muscular dystrophy. In some cases, there's no definite cause (idiopathic) or means of prevention for the spine's failure to develop normally.
- **spinal fusion:** usually a solid fusion (solidification) of the curved part of the spine, achieved by operating on the spine, adding bone chips and allowing the vertebral bones and bone chips to slowly heal together to form a solid mass of bone called a fusion
- **spine (spinal column, vertebral column):** the series of moving vertebrae forming the axis of the skeleton and protecting the spinal cord
- **spine curves, normal and abnormal:** front-to-back and sideways curves of the spine
  - All spines have normal front-to-back curves. Abnormal front-to-back curves can indicate “round back” (hyper-kyphosis) or “swayback” (hyper-lordosis).
  - Normal spines do not have much sideways curvature. An abnormal sideways “S” or “C” curve can indicate scoliosis.
- **VEPTR™ (titanium rib) procedure:** an operation that expands the chest and allows continued growth of the chest and spine. A curved metal rod fits the back of the chest and spine, helping the spine to become straighter and allowing the lungs to grow and fill with enough air to breathe. The device is made longer as your child grows. The procedure is used for some early-onset scoliosis, with the device attaching to the ribs, spine or both.
- **vertebra, vertebrae:** the individual bones that form the spinal column
- **vertebral stapling:** a newer surgical technique that may prevent the curve progression in children and adolescents with moderate scoliosis. A minimally invasive procedure, stapling may be an alternative to bracing for some children at risk for progression of their scoliosis and the prospect of spinal fusion in their future.