

What is scoliosis?

Simply put, scoliosis is a curvature of the spine. Although it often occurs in adults as a result of aging of the spine, we generally think of scoliosis as occurring in children.

There are three main causes of scoliosis in children:

- **Neuromuscular**- Due to overall muscular disorders seen in patients with cerebral palsy, muscular dystrophy, or spina bifida among others.
- **Congenital**- Due to malformation of the vertebral bones in the spine and can take on many different forms.
- **Idiopathic**- The most common type and divided into infantile (rare), juvenile, and adolescent (by far the most common)

Scoliosis is fairly common, with adolescent idiopathic scoliosis (AIS) occurring in 1% of the population at large. AIS is much more common in girls (90% versus 10% boys) and is first noted at the adolescent growth spurt which starts usually around age 10-12 for girls and slightly later for boys. Most curves remain quite small and do not cause any long-term problems. A smaller number of curves progress, sometimes relatively rapidly and require further treatment. Scoliosis is measured with Cobb angles, which measure the tilt of the vertebrae at the top and bottom of the curve.

There are three dividing lines for scoliosis that dictate treatment:

- **10-25 degrees**: Mild curves which require observation with x-rays every 6-12 months during the adolescent growth spurt.
- **25-45 degrees**: Moderate curves which benefit from bracing to prevent progression during growth.
- **45 degrees and above** (40 degrees in the more mobile lumbar and thoracolumbar spine): Large curves for which surgery is often required.

Many treatments have been attempted for correction of scoliosis. There is currently no evidence in the scientific literature that exercises or manipulation result in any long-term correction of scoliosis or prevention of progression. There is excellent evidence in the scientific literature that bracing prevents progression of scoliosis and helps patients avoid the need for surgery. If bracing is unsuccessful or the curve is recognized at a later stage, surgery can be performed to correct the curve. There are hundreds of studies showing that surgery is safe and effective and results in good correction and excellent outcomes even in the long term.

For additional information about scoliosis or to speak with our back specialists, contact 919-232-5020 or <http://www.wakeortho.com/appointment>

Useful links:

www.srs.org – Main website of the Scoliosis Research Society, the foremost research and treatment forum for scoliosis in the world.

www.bostonbrace.com – Website for the Boston brace, which is the best-studied type of brace for scoliosis.