

The Facts About Scoliosis

Understanding Scoliosis

- Scoliosis is a progressive condition causing the spine to curve or twist into a “C” or “S” shape.
- Patients with scoliosis are usually asymptomatic. It is frequently diagnosed when someone notices a mild skeletal asymmetry such as uneven shoulders, waistline discrepancies or a rib prominence.
- Scoliosis appears most often in adolescent girls and has shown a tendency to run in families.
- Despite some popular beliefs, scoliosis does not result from carrying heavy items, athletic involvement, sleeping/standing postures, or minor lower limb length inequality.

Types of Scoliosis

- 80-85% of scoliosis cases are diagnosed as idiopathic, meaning there is no underlying condition or cause for the spine deformity. (National Institute of Health)
 - Adolescent Idiopathic Scoliosis (AIS) occurs after age 10 and is most common in females but can occur in males.
 - Juvenile Idiopathic Scoliosis (JIS) typically affects patients ranging from age 3 to 10 years old.
 - Early Onset Scoliosis (EOS) affects patients age 3 or younger, and although the condition is rare, it can severely interfere with lung function and growth.
- Scoliosis also can be defined by the location of the curve (cervical, thoracic or lumbar) or by the underlying condition (i.e. cerebral palsy, spina bifida or neurofibromatosis) causing the curve of the spine.
- Curves resulting from a vertebral abnormality (misshapen vertebrae) are called congenital, while myopathic curves are caused by a disease in the muscles and neuropathic curves are related to a neurological condition.

Scoliosis Screening and Prevention

- School screenings consist of examining children while standing upright and during a “Forward Bending Test,” which requires the child to bend over at the waist, parallel to the floor, while the school nurse or physical education teacher checks for the visible signs of scoliosis – uneven shoulders, protruding shoulder blades, uneven arm positioning, bulges in the back.
 - 21 states (including Texas) have adopted a policy stating that districts or schools will screen students for scoliosis (Center for Disease Control’s School Health Policies and Programs Study 2000)
 - 31% of elementary schools, 52.2% of middle/junior high schools and 31% of high schools in the U.S. screen students for scoliosis. (CDC’s School Health Policies and Programs Study 2000)
- Scoliosis should be screened most frequently between the ages of 9 and 14 when a child’s growth is most rapid.
- With early screening and treatment, a mild case of scoliosis can be effectively treated to prevent progression of significant curves.

Scoliosis Treatment

- Of every 1,000 children in the U.S., three to five develop spinal curves that are considered severe enough to need treatment. (NIH)
- The following steps are taken to evaluate a patient for scoliosis:
 - Review the patient’s medical history
 - Physically examine the back, chest, pelvis, legs, feet and skin
 - Evaluate an x-ray of the spine
- Doctors evaluate curves by their location, shape, pattern and cause and use this information to determine the best treatment method. Treatment depends underlying condition, the size of the curve and how much growth potential remains for the patient.
- Observation, bracing and surgery are the three recommended treatment methods for scoliosis.
 - Close observation (re-examination every four to six months) is recommended for patients who are still growing and have an idiopathic curve of less than 25 degrees.
 - Bracing is recommended for patients in their growth spurt and who have a curve of less than 50 degrees.
 - Bracing prevents a curve from worsening but cannot correct the curve.
 - Surgery is an option for severe cases or if bracing is unable to prevent the curve from progressing to a large curve. Surgery techniques and implants can straighten the spine and stabilize the curve.
 - The average hospital stay for surgery to correct a scoliosis curve is five to six days.

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