



Colonial Heights Public Schools

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Dear Parent:

Scoliosis is a lateral spinal curve of 11 degrees or greater. It is present in 2 to 3 percent of adolescents, ages 10-14, at the end of their growth period. Progressive curves occur three times more frequently in girls than boys and tend to run in families.

Scoliosis, if left untreated, can have adverse effects including the progressive development of poor range of motion, back pain, distortion of the position of the ribs, impaired function of the heart and lungs, unpleasant cosmetic deformities, and social and psychological problems. Early detection can prevent scoliosis from progressing and can identify those in need of treatment.

Please read the attached information outlining the signs and symptoms of scoliosis. Should you suspect a problem with your child, please contact his/her physician for a personal evaluation. If scoliosis is detected, please notify your child's school so that the nurse can include this information in his/her cumulative health record.

Sincerely,

Director of Office of Support Services

FACT SHEET: SCOLIOSIS OVERVIEW

- A musculoskeletal disorder in which there is an abnormal curvature of the spine, that may lead to chronic back pain, reduced respiratory function or diminished self-esteem
- The most common deformity of the spine

PREVALENCE:

- Affects one in 40 people in the U.S., or approximately 7 million people
- In 2004, an estimated 1.26 million patients utilized health care resources for problems associated with spinal deformity; 93 percent of those were diagnosed with scoliosis¹
- The estimated total hospital charges for all patients released from the hospital with a scoliosis diagnosis was \$4.6 billion
- Each year, an estimated 30,000 children are fitted for a brace and more than 100,000 children and adults diagnosed with scoliosis undergo surgery
- The primary age of onset is between 10-years-old and 15-years-old, but the condition can also affect infants and adults
- Girls are eight times more likely than boys to have a curvature that progresses and requires treatment
- Scoliosis is more common in families who have scoliosis and increases a person's risk of having the condition by 20 percent

CAUSES:

- Idiopathic: 85 percent of scoliosis patients are diagnosed with idiopathic scoliosis, in which the cause of the condition is unknown
- Congenital: a patient is born with a spinal abnormality that causes scoliosis
- Neuromuscular: associated with another disease such as cerebral palsy, muscular dystrophy or spina bifida

SYMPTOMS/SIGNS:

- Uneven shoulders, shoulder blades, ribs, hips or waist
- Entire body leaning to one side
- Noticeable sideways curve of the spine when viewed from the back
- Appearance or texture of the ribs sticking up on one side as the child bends forward

SCREENING:

- It is recommended that females are screened at least twice at age 10 and 12 (grades 5 and 7) and males once, at age 13 or 14 (grades 8 or 9)
- A standard exam used by pediatricians is the Adam's Forward Bend Test, in which the patient leans forward with feet together and the spine is evaluated

DIAGNOSIS:

- The condition is confirmed by a physician using physical exams, spine x-rays, scoliometer (device measures trunk rotation) and MRI in certain circumstances
- The curve is measured by the Cobb angle method, in which lines are drawn over the x-ray of the spine to determine severity by number of degrees

TREATMENTS:

- One quarter of children with spinal curves require medical attention
- Treatment is normally based on:
 - Magnitude of the curve
 - Gender and age of the child
 - Probability of curve progression
- Types of treatment:
 - Observation - Curve is less than 25 degrees
 - Most spinal curves remain small and are observed by an orthopedist every four to six months during growth
 - In some cases, families seek more active treatment at this stage
 - Bracing - Curve is more than 25 degrees
 - Curves that progress require that the child wear a back brace that helps support the spine and prevent progression, while he or she is still growing
 - Surgery - Curve is more than 50 degrees
 - If a brace is ineffective, spinal fusion surgery is recommended to help straighten the spine and prevent further progression

SOURCES:

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