

# SCREENING FOR IDIOPATHIC SCOLIOSIS IN ADOLESCENTS

**Adolescent idiopathic scoliosis** is a spine deformity characterized by lateral and rotational curvature of the spine.

It usually becomes evident in the early adolescent years.

Females achieve adolescence about two years before males and are afflicted with a magnitude of scoliosis requiring treatment three to four times more frequently than males.

As a result, if scoliosis screening is undertaken, the S.R.S. and A.A.O.S. agree that females should be screened twice, at 10 and 12 (grades 5 and 7), and boys once, at age 13 or 14 (grades 8 or 9).

**Curve progression** is unpredictable, though a subset of children with adolescent idiopathic scoliosis may exhibit rapid progression. Every year, thousands of operations are performed for the primary diagnosis of adolescent idiopathic scoliosis in patients between the ages of 10 and 18. This spinal disorder can have a significant impact on the physical and psychosocial health of affected individuals.

Without treatment, many curves could be expected to worsen over the long-term, with some of them eventually needing surgical intervention. In addition, those children with more significant scoliosis, who may have no other symptoms, could be detected by clinical screening at a time when surgical treatment for their deformity could be performed most effectively.

**Screening** is defined as a clinical, rather than radiographic, examination.

Scoliosis screening provides the opportunity to diagnose the condition and make referral for appropriate medical care.

Costs involved with scoliosis screening are relatively low on a societal level and may justify the possibility of preventing surgery in adolescents with scoliosis.

The benefits that can be provided by effective clinical screening programs:

- 1) the potential prevention of deformity progression by physiotherapy and brace treatment
- 2) the earlier recognition of severe deformities requiring operative correction

**Early treatment** The potential benefits that patients with idiopathic scoliosis receive from early treatment of their deformities can be substantial.

Brace treatment in children with significant scoliosis may avoid the need for surgical intervention.

Those with deformities in need of surgery may be identified by screening at a time when operative intervention can be performed most effectively.

The S.R.S. and A.A.O.S. maintain their commitment to avoid the inappropriate use of spine X-rays.

Not all children referred as a result of screening require X-rays. If X-rays are needed, physicians should take necessary precautions to limit the patient's exposure to radiation.

## REFERENCE

### Screening for Idiopathic Scoliosis in Adolescents

S.R.S./A.A.O.S. Position Statement—An Information Statement 2007)

B. Stephens Richards, MD; Michael Vitale, MD

S.R.S.—Scoliosis Research Society

A.A.O.S.—American Academy of Orthopaedic Surgeons

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