ALABAMA STATE DEPARTMENT OF EDUCATION

ALABAMA DEPARTMENT OF PUBLIC HEALTH

ALABAMA HEALTH SERVICES

SCOLIOSIS GUIDELINES

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State Superintendent of Education

Alabama State Department of Education

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REVISED JANUARY 2019

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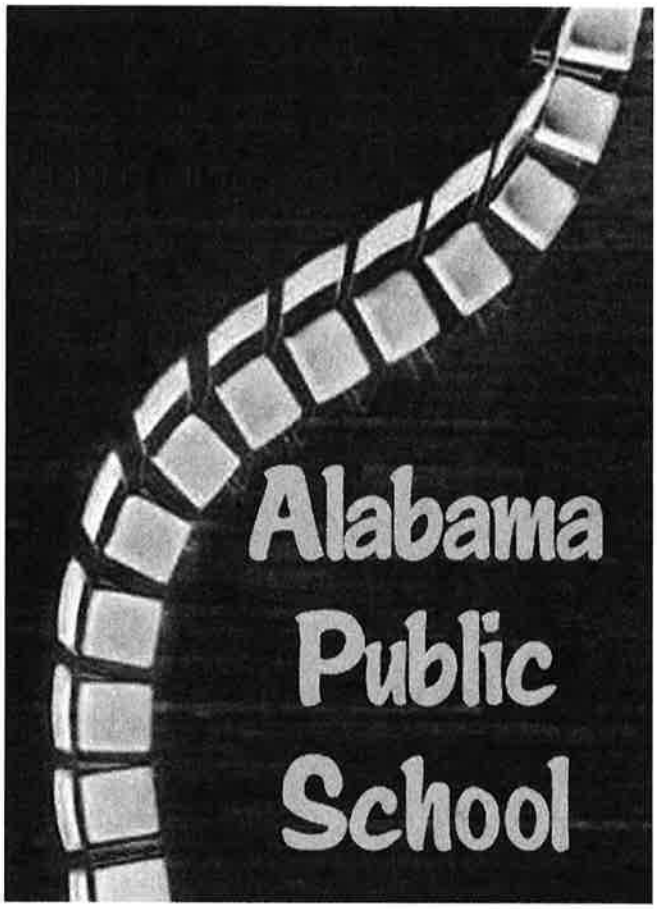

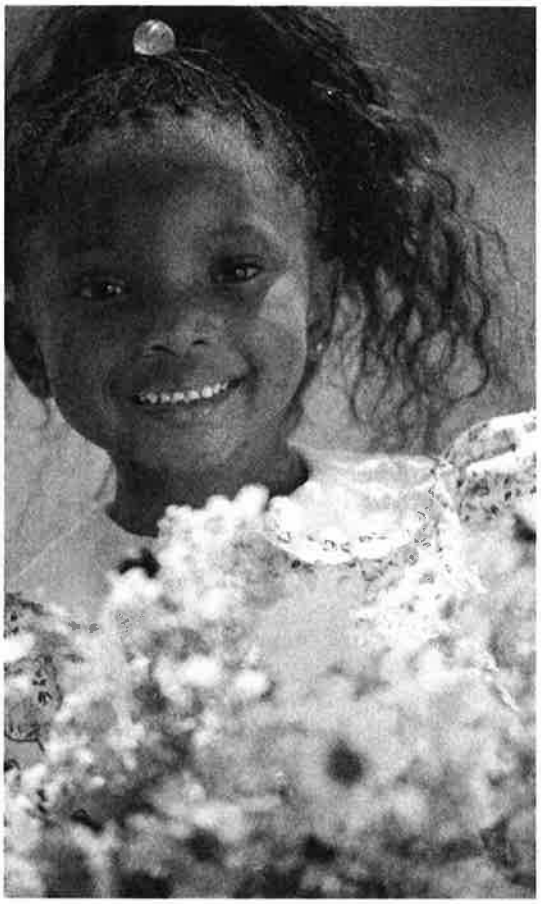

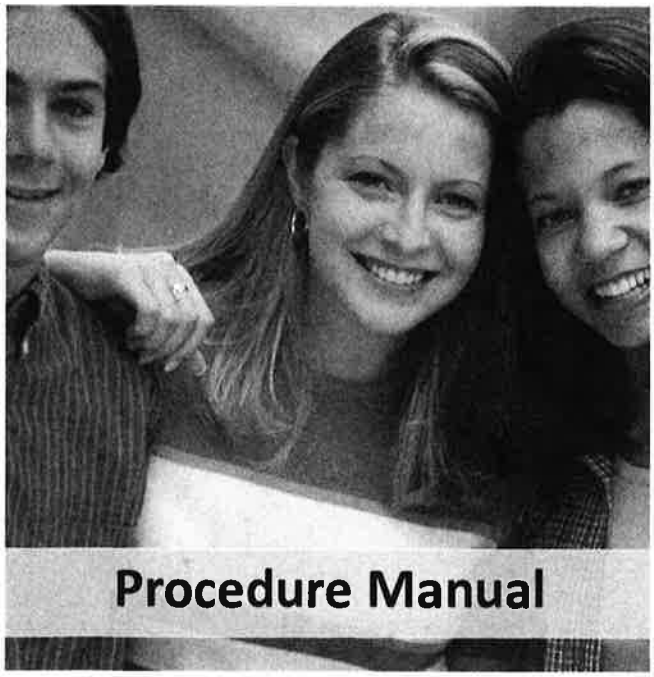

SPINAL SCREENING PROGRAM

Alabama Public School Spinal Screening Program Procedure Manual

REVISED JANUARY 2019

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A Message from the Superintendent

The National Scoliosis Research Society estimates that six million Americans have scoliosis, a lateral or side-to-side curvature of the spine. While there is no cure for scoliosis, early detection of scoliosis can prevent a deformity, which may result in back pain, unsightly posture, and impairment of the body's range of motion and endurance. Untreated, the distortion of the spine can affect the function of other parts of the body, including the heart and lungs.

If schools, together with community health agencies, can help prevent permanent spinal deformity and accompanying health problems, it follows that very costly treatment and other forms of care can be avoided. Alabama public schools offer a wide variety of screening programs designed to identify correctable health problems. Ensuring optimum health to the degree possible helps children and youths attain the highest achievement level within their capabilities.

The earlier edition of this publication, *Alabama Spinal Screening Program* outlined a model scoliosis screening program to be conducted by qualified personnel under implementation of the–Senate Joint Resolution 62, adopted pursuant to Code of Alabama 1975, Section 16-29-1. The revised 2019 program is designed to ensure that students who have scoliosis are identified and referred for medical evaluation before the student has finished growing and treatment becomes more involved. This 2019 edition updates and reinforces the standards and provides current best practices for school scoliosis screening.

Purpose

The goal of this program is that children having spinal deformities be detected early and placed under medical care before serious disability and deformity occur. The program is designed to screen children at school and to teach students and their parents about spinal deformities.

Scoliosis, the medical term for lateral curvature of the spine, is a common disorder. Between 5 and 10 percent of school children have spinal curves. It is slightly more common in girls than boys and has its onset usually about ages 10 to 12. About 85 percent of curves are idiopathic (of unknown origin), although there appears to be a strong familial tendency in the idiopathic group.

In addition to scoliosis, kyphosis or "humpback," and lordosis, sometimes referred to as "swayback," can be seen in the same age groups to be screened. Kyphosis and lordosis are much less common than scoliosis.

Although most curvatures are of minor consequences, progressive spinal deformity may lead to crippling spine deformity and heart and lung problems; therefore, early detection and treatment are essential.

When detected early, treatment with a brace may prevent the progression of the deformity and may prevent the need for surgery. When detected late, surgery may be necessary.

Spinal deformities in the early years often go undetected because of their painless onset. Unless the condition is severe, it will not be visible to parents or others in the fully clothed child. However, early detection can be accomplished by mass screening of the critical age groups by trained personnel. Therefore, all school children in Grades 5, 6, 7, 8, and 9 (ages 11 through 14), including special education students, should be screened once a year for this potential problem.

For additional information please review the below link:

2015 AAOS-SRS-POSNA-AAP Position Statement
Opinion Statement Number: 1122
https://pdfs.semanticscholar.org/ca96/8064a3ffbf6d08a1c11a06ee5f3f2a7c2583.

1. Definitions

a. "Public Schools" mean those schools over which the State Superintendent of Education has jurisdiction and control as referred to in Article No. 14 of the State Constitution.
b. "Student" means a pupil enrolled in the public school system in the state.
c. "Examination" means the screening procedure to be performed on each student as outlined in the "Alabama Public School Spinal Screening Program Procedure Manual."
d. "Referral" means a written notification to the parent of the positive screening from the Spinal Screening Program.
e. "Positive Screening" means the identified anatomical abnormalities for detection of spinal deformity as outlined in the "Alabama Public School Spinal Screening Program Procedure Manual."
f. "Trained Medical Professional" means the medical physician with expertise in examination for spinal deformities.
g. "Parent Permission" **Students must return a signed Parent permission form to be screened.**

2. Frequency of Screening

Screening will be offered once annually on all students in Grades 5, 6, 7, 8, and 9 (ages 11-14 years), including special education students, with at least an eight- to ten- month interval between each annual screening.

3. Qualifications of Screening Personnel

Screening will be conducted by school nurses, physical education instructors, other school personnel, or persons designated by school authorities who have received proper training in screening techniques for spinal deformities. One of these individuals shall be designated as Program Administrator and this person shall be responsible for the duties as outlined in the "Alabama Public School Spinal Screening Program Procedure Manual."

A health care provider who may benefit monetarily from arranging the referral process shall be excluded from referral and follow-up.

4. Screening Procedures

The screening procedures shall be consistent with the accepted standards for spinal screening procedures as outlined in the "Alabama Public School Spinal Screening Program Procedure Manual."

- Boys will be required to remove shirts and wear gym shorts so that the waistline

and hips can be observed.

- Girls will be observed in a two-piece bathing suit or a halter-top or bra and shorts.
- Body suits, one-piece bathing suits, or T-shirts are not acceptable.

It is strongly recommended that girls be examined by females. If this is not possible, it is mandatory that a female chaperone be in attendance at all times when girls are being examined.

5. Screening Results – Recording and Referral Procedures

A record of the screening results must be made of each student suspected of having a single deformity and copies of the results must be sent to the parents or legal guardians of the students. The notification shall include screening results, the significance of treating at an early stage, the services generally available for treatment after diagnosis, and a method for the school to receive follow-up information from health care providers.

Screening results and referral outcome shall be kept in the student's permanent health record.

4. Preparation of Students

a. Boys and girls should be screened separately.

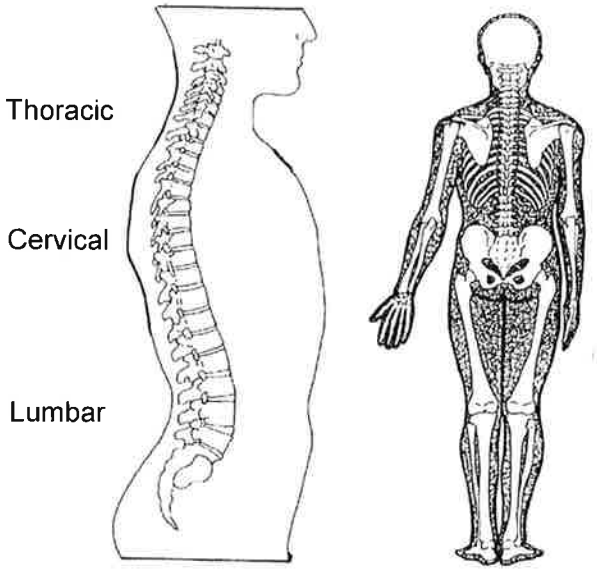
b. All students should be screened individually.

c. Boys should strip to the waist and wear briefs or gym shorts.

d. Girls should be requested to wear shorts and a halter or a bra. Leotards or one-piece bathing suits tend to camouflage the lower spine area; therefore, they are not acceptable.

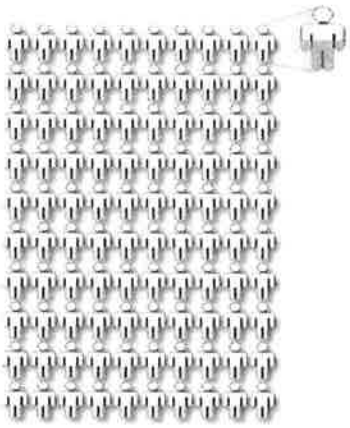
e. All students should remove shoes before screening.

Who Gets Scoliosis?



The Normal Spine

Scoliosis effects less than 1 in 100 of the general population.



Girls are seven times more likely than boys to have a significant, progressive curve that would require treatment

Scoliosis Information for Parents

What is scoliosis?

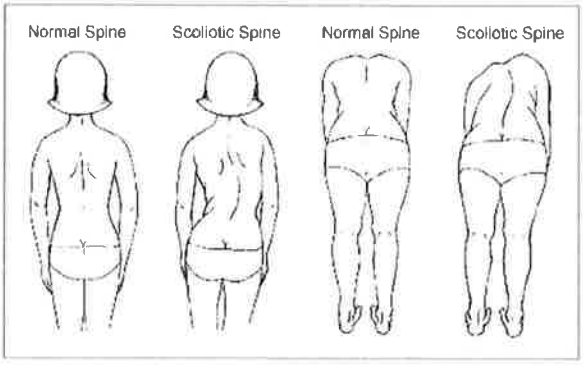
A normal spine, when viewed from behind, appears straight. However, a spine affected by scoliosis has a sideways curve, making it appear like an "S" or a "C". Scoliosis is a type of spinal deformity that should not be confused with poor posture. Scoliosis can occur at any age, but the most common type occurs in teens and preteens as they go through their growth spurt.

Scoliosis occurs in 2-3 percent of adolescents by the end of the their growth period. Mild curves generally do not cause problems. However, 3-5 out of every 1,000 adolescents have curves large enough to warrant treatment. Progressive, untreated scoliosis can lead to limited motion, back pain, deformity, and in extreme cases impaired function of the heart and lungs. Early detection and treatment may prevent scoliosis from progressing.

A simple check for scoliosis is part of a routine physical exam. However, it would not normally be detected at routing visits for illnesses such as colds and sore throats. Parents/guardians are strongly encouraged to have their child evaluated by their primary care provider for scoliosis as part of a regular checkup.

What are the signs of scoliosis?

- One shoulder may be higher than the other.
- One scapula (shoulder blade) may be higher or more prominent than the other.
- With arms hanging loosely by the side, there may be more space between the arm and the body on one side.
- One hip may appear higher or more prominent than the other.
- The head is not centered over the pelvis.
- When the patient is examined from the rear and asked to bend forward until the spine is horizontal, one side of the back appears higher than the other.



What causes scoliosis?

In most cases (80 to 85%), the cause of scoliosis is unknown, a condition called *idiopathic scoliosis*. Scoliosis is more common in females than males. It commonly affects adolescents as they complete their last major growth spurt between ages 10 and 18. Idiopathic scoliosis frequently runs in families and may be due to genetic or heredity influences.

How is scoliosis diagnosed?

Scoliosis is suspected on physical exam when any of the above signs are noted. If a significant curve is suspected, an x-ray is done to measure the actual angle of the curve in the spine. The Scoliosis Research Society defines scoliosis as a curvature of the spine measuring 10 degrees or greater on x-ray. The physician will look for signs in the medical and family history as well as the physical examination that suggest an underlying cause for scoliosis. If this is suspected, other tests may be done.

Treatment of scoliosis

The goal of treatment is to stop the progression of the curve and avoid long-term problems. Treatment depends on the degree of the curve and the amount of growth the child is expected to have.

- **Observation and repeated examinations** are done for smaller curves, to determine if the spine is continuing to curve. Curve progression normally slows down or stops after a child reaches puberty. However, it is important to follow up every 4-6 months or as instructed, to be sure no further treatment is necessary.
- **Bracing** may be used when the curve measures between 25 to 40 degrees on an x-ray, but skeletal growth remains. The type of brace and the amount of time spent in the brace will depend on the adolescent's condition. Modern braces often can be hidden under clothing.
- **Surgery** may be recommended when the curve measures 50 degrees or more on an x-ray and bracing is not successful in slowing down the progression of the curve.

According to the Scoliosis Research Society, there is no evidence to show that other methods for treating scoliosis (i.e. manipulation, electrical stimulation, and corrective exercise) prevent the progression of the disease.

Long-term outlook for an adolescent with scoliosis:

The management of scoliosis is individualized for each adolescent depending on age, amount of curvature, and amount of time remaining for skeletal growth. Scoliosis will require frequent examinations by the adolescent's doctor to monitor the curve as the child grows and develops. Early detection and follow-up is very important to prevent the serious consequences that can occur from untreated scoliosis.

If you have any concern that your child may have scoliosis, or if your child has not had a routine physical exam in the past year, we urge you to make an appointment with your child's primary care physician.

For more information see:

www.SRS.org
www.familydoctor.org

This information was developed in consultation with the University of Virginia Department of Pediatric Orthopedics.