

### Description

Scoliosis is a physical condition characterized by a sideways curvature of the spine greater than 10 degrees determined by a spinal X-ray.

Most cases are idiopathic, which means the cause is unknown.

AIS accounts for 85% of the cases of idiopathic scoliosis. Thus, scoliosis is most often seen in the middle school-age group, when rapid growth is occurring. Girls and boys can be affected.

Scoliosis screening is a clinical process, designed to identify children who have early signs of scoliosis. The goal is to provide timely follow-up and conservative medical treatment before the curve progresses and may require surgery. The American Academy of Orthopedic Surgeons (AAOS), Scoliosis Research Society (SRS), Pediatric Orthopedic Society of North America (POSNA) and the American Academy of Pediatrics (AAP) agree that effective clinical scoliosis screening programs provide the opportunity to recognize signs of the condition and make referrals for appropriate medical care.

After scoliosis is identified or suspected, follow-up is essential to measure the degree of curvature and determine treatment options. A spinal X-ray is used to determine the degree of curvature.

Current treatment options consist of medical observation, spinal orthotics (bracing) and corrective surgery. Medical observation includes checkups at designated intervals until the skeleton has reached adult height or skeletal maturity. The goal of orthotic intervention is to keep the curve from progressing until skeletally mature. Corrective surgery is indicated if the curve is progressive and is only needed in severe cases. Current research is focused on understanding the development of idiopathic scoliosis and identifying additional modalities that may provide beneficial treatment options and interventions.

Kyphosis, an accentuated outward curve, or rounding, of the upper back and lordosis, or swayback, may occur independently or in conjunction with scoliosis.

### Establishing a school screening program

The person responsible for the school district's scoliosis screening program will coordinate activities with administration, teachers, parents, nurses and screeners.

– Coordinate with school administration.

- Provide scoliosis screening background information to school system personnel, including:
  - Administrators
  - School nurses
  - Clinic workers
  - Student representatives
  - Others involved in the screening process
- If needed, review:
  - The legal requirements for scoliosis screening
  - Scope of the problem
  - Rationale and technique of screening

- Discuss the grades to be screened and methodology for screening.
  - Individual state law governs parameters for scoliosis screening, including the screening process and which grade levels will be screened and the process. Exact ages and grade levels to screen will vary depending on state law, grade structure of schools and school preference.
- Identify the grades to be screened and the follow-up plan for positive screenings.
- Verify screeners are trained.
  - Arrange for untrained health workers to attend an educational scoliosis screening workshop.
    - You may choose to have two or more adults participate in the screening process for security or liability concerns.
  - Assistants can help with student preparation and management.
- Determine screening date and site.
  - Schedule the screening so that there are no conflicts with testing, field trips, etc.
  - Possible class times for screening include P.E. or exploratory periods.

## Notification of parents

Send out a screening letter or consent form (see appendix) two weeks prior to the screening date(s).

- Enclose the scoliosis screening information, Fast Facts About Scoliosis, available in English and Spanish (see appendix). Visit [choa.org/scoliosis](http://choa.org/scoliosis) to download the forms.
- Instruct teachers to collect and save Do Not Screen forms.

Publicize the screening program on the school website, PTA, student groups and a parent letter (see appendix).

## Notification of students

Conduct orientation sessions for each class of students to be screened.

- Show educational "Scoli What?" video on [choa.org/scoliosis](http://choa.org/scoliosis) that explains the importance of scoliosis screening to students.
- Allay any fears the students may have.

## Preparation

Determine the amount of time needed to conduct the screenings based on student enrollment minus written parent requests for exemption from screening.

- With an assistant, an experienced screener should be able to screen 20 to 30 students in an hour.

On the day before the scheduled scoliosis screening, remind the students of the screening's purpose.

- Remind the girls to wear a bathing suit top, halter top or sports bra.
- Speak positively.

Have a roster of students available.

- Students whose parents have submitted a request for exemption are excused from screening.
  - Appropriate personnel should be notified privately concerning these students.

## Designated screening area

- Check the designated screening area at least one week prior to screening to help make sure the cleanliness of the area and that all lights are in working order. Rechecking one day prior is also recommended.
- Provide privacy for individual screening.
  - Use of screens is encouraged.
  - Cover windows.
  - Locate other students in a designated area where they cannot see their peers being screened.
- Place tape on the floor to indicate where student should stand.
- Provide a place for students to place their shirt or top during screening.
- Make sure the room is well-lit.
- Keep the room's temperature comfortable, as students will be removing shirts or tops.
- Provide a chair, small table or clipboard, and pen for screener.
- Consider placing a horizontal masking tape line on the back wall to check for uneven shoulders.
- Check that the floor is free of uneven areas.

## Day of screening

- Student completes demographic section of screening form or the school may provide preprinted labels with required information (see appendix).
- Child should remove shoes during the screening.
- Record the name of each student screened, or use a class roster.
- Note absences on the class roster.

## Recording

- Screener records findings on screening form (see appendix).
- Document reasons for exclusion on school health record.

## Rescreening (if applicable)

State regulations may require rescreening to verify initial screening findings.

- If secondary screeners were not present at the primary screenings, arrange to rescreen positive or abnormal findings within two weeks.
  - Have the child remove shoes for second screening.
  - Document the second screening on the screening form.
  - Document the second screening results on the school health record.
- Arrange to screen those students who missed initial screening at that time.
  - Document the screening results.
  - Rescreen students with positive findings, if applicable.
- If possible, call parents to explain findings as a courtesy.
  - Explain that signs of scoliosis were noted.
  - These signs indicated that the child needs to be checked by his doctor.
  - Assure the parents that although follow-up is needed, only the physician will determine if the child has scoliosis.
  - Children do not usually have pain associated with signs of scoliosis.
  - Written notification is required and will be forthcoming.

## Follow-up activities

- Referral process
  - Provide written notification of a possible spinal deformity to the parent or guardian (see example in the appendix).
    - Written referral letter is the responsibility of the healthcare professional at the screening.
- Maintain the names of children screened and the results.
- Document
  - All findings, positive and negative, should be recorded on the student's cumulative health record.
  - For positive findings, additional referral information and results of medical evaluations should be recorded.
- Follow-up
  - If parents or guardians do not submit the results of the medical evaluation in writing, the designated health professional shall contact them to ascertain the outcome of the medical evaluation.
    - Discussion of the child-specific signs of scoliosis can be helpful to allay fears and reinforce the need for completing the evaluation process.
- Provide in-school support for those children diagnosed with scoliosis, such as:
  - Adaptation of physical education classes
  - Supervision of brace care
  - Counseling of child and parent or guardian related to prescribed treatment plan
    - Is the child returning for rechecks (observation) at prescribed intervals?
    - Is the child wearing brace as prescribed?
    - Is the child experiencing difficulties?
    - Possible consultation with a physical therapist
  - Education of peers and staff regarding child's specific needs
- School health professional may develop an individualized healthcare plan (see resources).
- Submit annual report to the designated state agency, as required by state mandates.



## **SAMPLE**

### **Stay ahead of the curve**

During the teenage years, a condition called scoliosis may develop. About 2-3% of children will develop this condition. The cause is usually not known. Scoliosis is a sideways bending of the spine that can get worse quickly during the teen years. Scoliosis also can make the spine rotate. A curve in the spine can be overlooked until it has become very noticeable. Some children will develop serious problems later in life if the condition is not treated. That is why it is important to have your child checked for scoliosis.

The school will be providing a screening examination as required by Georgia State Law O.C.G.A. Section 20-2-772 to check for this condition. The screening is simple and easy. The children are screened privately by a trained scoliosis screener. You will receive additional information by email or mail about scoliosis, and how and when the screening will be conducted.



June 22, 2021

Dear Parent or Guardian:

This letter is to remind you that scoliosis screening is required for all students in the 6th and 8th grades who attend public school in Georgia.

Scoliosis is a sideways curve of the [spine](#). About 3% of children are affected by scoliosis. It can occur at any age but is often noticeable between the ages of 9 and 16, when growth occurs rapidly. Early detection is important to avoid potentially serious problems later in life if a spinal curve is not recognized, treated, and it continues to progress. The screening test is an observation of the child's back when standing and bending forward.

There are options for how the screening can be completed:

- Submit a completed Form #4400, Certificate of Scoliosis screening. Form #4400 can be completed by a physician with an active GA license or person working under the supervision of a physician with an active GA license, the local health department, or licensed school nurse. A completed Form #4400 should be provided to the school within the first 90 days of 6th and 8th grade. Form #4400 can be found at [www.dph.georgia.gov](http://www.dph.georgia.gov).

**OR**

- Children can participate in a school scoliosis screening event. Students without a completed Form #4400 on file more than 90 days after the start of school will be asked to participate in scoliosis screening during a school screening event.

Parents or guardians can choose to not have their student screened for scoliosis by selecting the opt-out option on Form #4400 or opt-out of the school scoliosis screening event later in the school year.

Thank you for ensuring your child is properly screened for scoliosis.

Sincerely,

Kathleen E. Toomey, M.D., M.P.H.  
Commissioner and State Health Officer



Form #4400
Certificate of Scoliosis Screening

Required for students entering 6th and 8th grade
Form must be completed in its entirety and returned within 90 days of school start

Student name: First Middle Last

Date of Birth: Gender: Male Female Grade:

Student Address: Street City
Zip code County State

Name of School:

Parent/Guardian Contact information:

Name:

Phone number:

Email: @

Scoliosis Screening (Adams Forward Bend Test) Results:

Negative screen:
Needs further evaluation:
Referred to provider:

Screener's Comments:

Screening completed by:

Physician Practice: County Health Department:
Licensed School Nurse:

Screener Information:

Name: Office Address:
Signature: Date:

Parent/Guardian - Complete This Portion Only if Student Will Not Be Screened

Opt-out

I do not want my student to be screened for scoliosis at this time.
The student listed above is currently under professional care for scoliosis.

Parent/Guardian's Signature: Date:

# Georgia Department of Public Health

## Form #4400

### Certificate of Scoliosis Screening

#### ***What is scoliosis?***

Scoliosis is an abnormal curvature of the spine. If detected early in a child's life, it may be possible to treat the condition and prevent it from becoming more serious.

#### ***Who is required to file this Form #4400?***

The parent or guardian of a student entering the 6<sup>th</sup> grade shall furnish to school authority a properly executed DPH Form #4400, Certificate of Scoliosis screening, as early as the first day of 5<sup>th</sup> and no later than 90 days after the student begins 6<sup>th</sup> grade. The parent or guardian of a student entering the 8<sup>th</sup> grade shall furnish to school authority a properly executed Form #4400, Certificate of Scoliosis screening, as early as the first day of 7<sup>th</sup> and no later than 90 days after the student begins 8<sup>th</sup> grade.

These time periods were chosen because these are the years when rapid growth occurs, and scoliosis is most likely to become observable.

#### ***What is the purpose of Form #4400?***

Form #4400 is intended to ensure every child in Georgia public schools is screened for spinal deformities. The earlier these problems are detected the earlier parents/guardians can seek professional help for their student.

#### ***What screenings are required?***

The "Adams Forward Bend Test" is required, and the results must be documented on the Form #4400 before it is filed with the school. The Adams Forward Bend test is a simple painless observation of the child's back as he or she stands and bends over.

#### ***Who can conduct the screenings?***

The test can be conducted by a physician with an active GA license or person working under the supervision of a physician with an active GA license, the local health department, and licensed school nurses.

#### ***What should a parent do if the "Needs further evaluation" box is checked?***

If the "Needs further evaluation" box is checked, then the parent/guardian should take the student to a medical provider for a more detailed evaluation. Your physician or local health department may be able to help or recommend someone who can help.

#### ***What if a Form #4400 was previously filed for the child at another school?***

Form #4400 should become part of the student's permanent record. If a student transfers schools, the school where the form was filed is required to forward Form #4400 to the new school.

#### ***What happens if Form #4400 is not completed for students in 6<sup>th</sup> and 8<sup>th</sup> grades?***

Students without Form #4400 on file will be screened by school staff during a mass scoliosis screening event during the school year.





22 de junio de 2021

Estimado padre o tutor:

Esta carta es para recordarle que todos los estudiantes de sexto y octavo grados que asisten a las escuelas públicas de Georgia deben hacerse la prueba de la escoliosis.

La escoliosis es una curvatura lateral de [la columna vertebral](#). Alrededor del 3% de los niños se ven afectados por la escoliosis. Puede ocurrir a cualquier edad, pero a menudo se nota entre las edades de 9 y 16 años, cuando el crecimiento ocurre rápidamente. Para evitar problemas más adelante en la vida, es importante detectar la curvatura de la columna vertebral de forma temprana para tratarla y evitar que continúe acentuándose. La prueba de detección consiste en observar la espalda del niño cuando está de pie y se inclina hacia delante.

Existen opciones para realizar la prueba:

- Presente el Formulario n.º 4400, Certificado de Escoliosis, llenado. El Formulario puede ser llenado por un médico con una licencia activa de GA o por una persona que trabaje bajo la supervisión de un médico con una licencia activa de GA, el departamento de salud local o una enfermera escolar licenciada. El Formulario n.º 4400 llenado debe entregarse a la escuela dentro de los primeros 90 días del inicio de clases para sexto y octavo grados. Puede encontrar el formulario n.º 4400 en [www.dph.georgia.gov](http://www.dph.georgia.gov).

**O:**

- Los niños pueden participar en un evento de detección de escoliosis en la escuela. A los estudiantes que no hayan entregado el Formulario n.º 4400 en los primeros 90 días del inicio de clases, se les pedirá que participen en la prueba de escoliosis durante el evento de detección de escoliosis en la escuela.

Los padres o tutores pueden optar por no hacer que su estudiante sea examinado para escoliosis seleccionando la opción de no participar en el Formulario n.º 4400 o no participar en el evento escolar de detección de escoliosis más adelante en el año escolar.

Gracias por asegurarse de que su niño sea adecuadamente examinado para detectar la escoliosis.

Atentamente,

Dra. Kathleen E. Toomey, M.D., M.P.H.  
Comisionada y Directora de Salud del Estado



Formulario n.º 4400
Certificado de prueba de detección de escoliosis

Obligatorio para los estudiantes que ingresan a 6.º y 8.º grados.
El formulario se debe llenar en su totalidad y devolverse dentro de los primeros 90 días del inicio de clases.

Nombre del estudiante: \_\_\_\_\_

Primer nombre

Segundo nombre

Apellido

Fecha de nacimiento: \_\_/\_\_/\_\_\_\_

Sexo: Masculino \_\_ Femenino \_\_

Grado: \_\_\_\_

Dirección del estudiante: \_\_\_\_\_

Calle

Ciudad

Código postal

Condado

Estado

Nombre de la escuela: \_\_\_\_\_

Información de contacto del padre o tutor:

Nombre: \_\_\_\_\_

Número de teléfono: \_\_\_\_\_

Correo electrónico: \_\_\_\_\_ @ \_\_\_\_\_

Resultado de la prueba de detección de escoliosis (prueba de inclinación de Adams):

Prueba negativa: \_\_\_\_\_

Necesita una evaluación adicional: \_\_\_\_\_

Referido al proveedor: \_\_\_\_\_

Comentarios del examinador: \_\_\_\_\_

Prueba realizada por:

Médico: \_\_\_\_\_

Departamento de Salud del condado: \_\_\_\_\_

Enfermera escolar licenciada: \_\_\_\_\_

Información del examinador:

Nombre: \_\_\_\_\_ Dirección del consultorio: \_\_\_\_\_

Firma: \_\_\_\_\_ Fecha: \_\_/\_\_/\_\_\_\_

Padre o tutor - Llene esta sección solamente si el estudiante No será examinado.

Exclusión voluntaria

\_\_\_ No quiero que se examine al estudiante para detectar la escoliosis en este momento.

\_\_\_ El estudiante antes mencionado está actualmente bajo tratamiento profesional para la escoliosis.

Firma del padre o tutor legal: \_\_\_\_\_ Fecha: \_\_/\_\_/\_\_\_\_

# Departamento de Salud Pública de Georgia

## Formulario n.º 4400

### Certificado de prueba de detección de escoliosis

#### ***¿Qué es la escoliosis?***

La escoliosis es una curvatura anormal de la columna vertebral. Si se detecta a temprana edad en un niño, es posible tratarla e impedir que se vuelva más grave.

#### ***¿Quién debe presentar este formulario n.º 4400?***

El padre o tutor de un estudiante que entra a 6.º grado debe proporcionar a la autoridad escolar el formulario n.º 4400 del DPH, Certificado de prueba de detección de escoliosis, debidamente completado dentro del período comprendido entre el primer día del 5.º grado hasta 90 días después de que el estudiante comience el 6.º grado. El padre o tutor de un estudiante que entra a 8.º grado deberá proporcionar a la autoridad escolar el formulario n.º 4400 del DPH, Certificado de prueba de detección de escoliosis, debidamente completado dentro del período comprendido entre el primer día del 7.º grado hasta 90 días después de que el estudiante comience el 8.º grado. Estos períodos se eligieron porque abarcan las edades en que se produce el crecimiento rápido de los niños y donde es más probable que se pueda observar la escoliosis.

#### ***¿Cuál es la finalidad del formulario n.º 4400?***

El propósito del formulario n.º 4400 es asegurar que todos los niños de las escuelas públicas de Georgia sean examinados para detectar deformidades en la columna vertebral. Cuanto antes se detecten estos problemas, más pronto los padres o tutores podrán buscar ayuda profesional para su estudiante.

#### ***¿Qué pruebas se necesitan?***

Se requiere hacer la «prueba de inclinación de Adams», y los resultados se deben documentar en el formulario n.º 4400 que se presentará a la escuela. Esta prueba es una simple observación indolora de la espalda del niño mientras está de pie y se inclina hacia adelante.

#### ***¿Quién puede realizar la prueba?***

La prueba puede ser realizada por un médico con licencia activa de Georgia o por una persona que trabaje bajo su supervisión, el Departamento de Salud local y enfermeras escolares licenciadas.

#### ***¿Qué debe hacer un padre si la casilla «Necesita una evaluación adicional» está marcada?***

Si esta casilla está marcada, el padre o tutor debe llevar al estudiante a un proveedor médico para que le realice una evaluación más exhaustiva. Su médico o el Departamento de Salud local puede ayudarlo o recomendarle a alguien que lo ayude.

#### ***¿Qué pasa si se presentó un formulario n.º 4400 previamente del niño en otra escuela?***

Este formulario debe estar en el registro permanente del estudiante. Si el estudiante se transfiere a otra escuela, la escuela donde presentó el formulario tiene la obligación de enviar el formulario n.º 4400 a la escuela nueva.

#### ***¿Qué sucede si el formulario n.º 4400 no es llenado para los estudiantes en 6.º y 8.º grados?***

Los estudiantes que no tienen el formulario n.º 4400 en su registro serán examinados por el personal de la escuela durante el evento masivo de detección de escoliosis durante el año escolar.

# Fast facts about scoliosis

---

## “What is scoliosis?”

Scoliosis is a sideways curve of the spine. Adolescent idiopathic scoliosis (AIS) is the medical name for the most common type of scoliosis. AIS happens in children older than age 10 and teenagers. Idiopathic means that we do not know what causes it.

- The curve can make the spine look more like an “S” or “C” than a straight line when viewed from the back.
- Scoliosis also can make the spine rotate. This can make the shoulders or waist look uneven.

## What causes scoliosis?

Scoliosis tends to show up during teenage growth spurts. It also runs in families, but there is no known cause. Scoliosis is not caused by bad posture, heavy backpacks, poor diet or playing sports.

## What is a scoliosis screening exam?

The exam will be at your child’s school and done by trained screeners, such as nurses, physical education teachers or parent volunteers.

- The exam will take about one minute to complete.
- Boys and girls are screened separately in private areas. Girls may wear swimsuit tops under their clothes and remove their shirts for screening. Boys will take off their shirts for the exam.

## What are the signs of scoliosis?

The screener will look for certain signs during the exam, including:

When your child is standing:

- Uneven shoulders
- One shoulder blade sticking out more than the other

When your child is bending forward:

- A rib hump, called a rib prominence
- A lower back hump called a lumbar prominence

Scoliosis does not usually cause back pain. This is why it is important to look for signs on the outside of the body.

**Scoliosis is best treated when found early.** It can be hard to tell if your child has scoliosis. It is important for your child to have an exam done by trained screeners in school. More serious treatments for scoliosis can be avoided when scoliosis is found early.



Visit [choa.org/scoliosis](https://choa.org/scoliosis) for more information about the Children’s Healthcare of Atlanta Scoliosis Program.”

# Datos importantes sobre la escoliosis

## (Fast facts about scoliosis)

---

### “¿Qué es escoliosis?”

Escoliosis es una curvatura lateral de la columna vertebral. La escoliosis idiopática del adolescente (Adolescent Idiopathic Scoliosis, AIS por su nombre y sigla en inglés) es el nombre médico del tipo más común de escoliosis. Ocurre en niños mayores de 10 años y en adolescentes. Idiopática, significa que se desconoce la causa.

- La curvatura hace que la columna se parezca más a una “S” o a una “C” que a una línea recta cuando se observa desde la parte de atrás.
- La escoliosis también puede hacer que la columna rote, lo cual hace que los hombros o la cintura se vean desnivelados.”

### “¿Cuál es la causa de la escoliosis?”

La escoliosis tiende a aparecer durante los períodos de crecimiento rápido en la adolescencia. También es hereditaria, pero se desconoce la causa. La escoliosis no es producida por mala postura, mochilas (backpacks) pesadas, mala alimentación ni por practicar deportes.

### ¿Qué es un examen de detección de escoliosis?

El examen lo hacen en la misma escuela de su niño, por personas especialmente capacitadas como enfermeras, profesores de educación física o padres voluntarios.

- El examen se demora aproximadamente un minuto.
- Niños y niñas se examinan separadamente, en áreas privadas. Las niñas pueden usar la parte de arriba de un traje de baño debajo de la ropa, ya que se quitarán la camisa para hacer el examen. Los niños simplemente se quitan la camisa.

### ¿Cuáles son los posibles signos de escoliosis?

El examinador buscará ciertos signos durante el examen que incluyen:

Cuando su niño está parado:

- Hombros desnivelados
- Un omoplato sobresale más que el otro

Cuando el niño se inclina hacia adelante:

- Una joroba de las costillas, conocida como prominencia de las costillas
- Una joroba de la parte inferior de la espalda, conocida como prominencia lumbar

La escoliosis generalmente no produce dolor de espalda. Por eso es importante buscar signos en el exterior del cuerpo.

**La escoliosis se trata mejor cuando se detecta en forma temprana.** Puede ser difícil saber si su niño tiene escoliosis. Por eso es importante que un examinador entrenado le haga un examen en la escuela. Cuando la escoliosis se detecta temprano se pueden evitar tratamientos más complejos.



Visite la página de Internet [choa.org/scoliosis](http://choa.org/scoliosis) para obtener más información sobre el Programa de detección de escoliosis de Children's Healthcare of Atlanta.