

Materials needed

- Computer with DVD capability
- LCD projector
- "Curve Checks" DVD
- Pretest forms—one per participant (see appendix)
- Evaluation forms—one per participant (see appendix)
- Curve Checks Reference Guide—one per participant (copy if needed to provide one for each attendee)
- Screening form—one per participant (see appendix)
- "Curve Checks" DVD quiz sheet—one per participant (see appendix)
- "Curve Checks" DVD quiz answer key—one per participant (see appendix)
- Practicum form (see appendix)
- Scenarios form (see appendix)

How to use this section

- Scoliosis Screening Instruction for Health Workers and Volunteers is a PowerPoint presentation designed for the instructor's use.
 - The PowerPoint presentation within the manual provides note pages to guide the instructor regarding information on each slide. Note pages contain instructions for the instructor and suggested verbal information to share with attendees.
- Download to prepare for training:
 - Powerpoint presentation from choa.org/scoliosis
 - "Curve Checks" DVD
- Handouts can also be printed from the PowerPoint rather than using the Curve Checks Reference Guide.
 - Go to *Adobe/File/Print*. Under *Page Sizing and Handling* section, choose *Multiple pages per sheet*. Adjust *Pages per sheet* to number of slides desired.
- As an instructor, preview the DVD with note pages to determine the chapters that are applicable to your participants and time frame.

Scoliosis screening instruction for health workers and volunteers



Slide 1

- Prior to class, download the Scoliosis Screening Instruction for Health Workers and Volunteers PowerPoint presentation.
- As attendees enter room, pass out the following materials:
 - Pretest—attendees can take the test prior to beginning presentation
 - Curve Checks Reference Guide—ask them to review Page 1
 - Screening form
 - DVD quiz sheet
 - DVD quiz answer key (if reference guide not available)
 - Practicum form
 - Scenarios form

Introductions



Slide 2

- Introduce yourself and anyone else teaching class.
- Tell participants something about yourself as it relates to your role and experience with scoliosis screening.
 - How long have you been screening children for scoliosis?
 - Explain your special interest in scoliosis screening.

Overview of scoliosis

- Description and definition



Children's Healthcare of Atlanta  3

Slide 3

Description: Scoliosis is a lateral or sideways deviation or curve from the normal vertical line of the spine, which measured by X-ray is greater than 10 degrees. This X-ray shows a curve of 9 degrees.

Overview of scoliosis

Myths ☹️

1. Back pain is an indicator for idiopathic scoliosis.
2. Backpacks cause scoliosis.
3. Bad bedding can cause scoliosis.
4. Bad posture causes scoliosis.

Facts 😊

1. Adolescent idiopathic scoliosis has few symptoms.
2. 30 percent of families have a history of scoliosis.
3. Scoliosis affects 2 to 3 percent of adolescent population.
4. Vertebrae changes are multifactorial.

Children's Healthcare of Atlanta  4

Slide 4

Myth 1. Back pain is an indicator for idiopathic scoliosis.

Fact: AIS has few physical symptoms. Back pain is not usually associated with AIS, but pain may be caused by other conditions.

Myth 2. Backpacks cause scoliosis.

Fact: Scoliosis runs in families.

Myth 3. Bad bedding can cause scoliosis.

Fact: Scoliosis affects 2 to 3 percent of the adolescent population.

Myth 4. Bad posture causes scoliosis.

Fact: Vertebrae shape change is due to interrelated physical responses not yet fully understood.

Overview of scoliosis

- Statistics
- Consequences of untreated scoliosis
- Treatments
 - Observation
 - Orthopaedic intervention
 - Orthotics (spinal brace)
 - Surgery

Slide 5

Statistics:

- 2 to 3 percent of the population has scoliosis.
- 0.5 percent need orthopaedic intervention.

Consequences of untreated scoliosis:

- Back pain
- Cosmetic concerns regarding the way clothing hangs on the body
- Surgical complexity due to positioning and decreased lung function
- High treatment costs related to surgery and postoperative management

Treatments:

- Observation or recheck by physician of adolescents with curves until they reach adult height or skeletal maturity
- Orthopaedic intervention including bracing (orthotics)
 - A spinal brace is prescribed when the curve reaches about 20 to 25 degrees. It is worn under clothes or at night during the adolescent growth period.
 - The goal of orthotics is to prevent the curve from progressing and to avoid surgical correction.
 - Surgery may be needed if the curve progresses beyond 47 degrees.

Orthopaedic management related to X-rays

- Curve Checks Reference Guide, Page 3
 - 9 degrees
 - 15 degrees
 - 26 degrees
 - 30/30 degrees
 - 52/30 degrees
 - 85 degrees

Slide 6

Let's review some X-rays to relate degrees of curve to orthopaedic management:

Turn to Page 3 in the Curve Checks Reference Guide.

- 9-degree curve: Spinal asymmetry. The body can tolerate this small degree of curve without consequences.
- 15-degree curve: Orthopaedic observation begins. Periodic rechecks are required by the orthopaedic specialist.
- 26-degree curve: Orthopaedic intervention begins. This may include orthotics or brace treatment. The goal of intervention is to keep the curve from progressing.
- 30-degree double curve: Curves of 30 degrees or more are at risk for progression even after skeletal maturity. These curves will need orthopaedic intervention during adolescence with periodic observation throughout adulthood.
- 52-degree thoracic curve with compensatory 30-degree curve: Surgical correction is indicated. This curve will probably progress over the adult lifetime if not surgically corrected.
- 85-degree thoracic curve: Results in decreased pulmonary function and patients experience shortness of breath. Can you see the difference in the rib cage when you look at the right and left side of the ribs?
- Adults with curves of 30 degrees or more may experience back pain, osteoarthritis of the spine and potential significant deformity if curve increases.

Overview of scoliosis

- Types of scoliosis
 - Congenital
 - Neuromuscular
 - Idiopathic
 - Mechanical
 - Other

Slide 7

Types

- Congenital–Bony abnormalities of the spine present at birth.
- Neuromuscular–Scoliosis is a secondary diagnosis due to a condition related to the central nervous system, such as cerebral palsy, muscular dystrophy or spina bifida.
- Idiopathic–The cause has not yet been determined.
- Mechanical–Associated with a condition that may initially manifest as scoliosis, however underlying cause is another condition such as leg-length discrepancy.
- Other–Associated with bone tumors or infections that present as a curvature with pain.

"Curve Checks" DVD

- What is scoliosis?
- What causes scoliosis?
- Why is screening important?
- How is scoliosis treated?
- What is my role as a screener?
- Screening preparation

Slide 8

Explain to participants: "Curve Checks" DVD is designed to give you background information about scoliosis and teach you how to screen. You can follow along in your "Curve Checks" Reference Guide or watch the video.

- Play the "Curve Checks" DVD–Chapter 1 (Introduction) to Chapter 7 (Screening Preparation)
- Pause DVD

Observe a screening

- Chapter 8, Normal Screening, Daniella

Slide 9

Hand out screening form or have participants pull screening form from packet. Explain to attendees that we are ready to review a normal screening.

- Play Chapter 8 (Daniella).

After DVD plays, the trainer may pause the video if there is time and may discuss kyphosis as noted in Daniella's screening.

- Daniella is normal until she turns to side and the C curve is not within normal limits.
- She has a hump, which is not easily seen in the video.
- Note that in the front view, the child's right is on the opposite side as you look at the child. In the back view, the right of the child is on your right.

Inform the participants whether the children to be screened have seen the "Scoli What?" video on choa.org/scoliosis as an introduction to scoliosis and what is expected of them during the screening.

- "Scoli What?" is a 6-minute video for adolescents to give them information about scoliosis and to show them how to stand and bend during the screening.
- If "Scoli What?" has not been shown, inform the participants that the students in this school may need additional instruction and coaching through the screening process.

5 steps to scoliosis screening

- Receive the screening form from the child
 - Review form
 - Check that demographic information is complete
 - Or
 - Preprinted label is attached

Slide 10

The child will give you the screening form. The demographic portion will be completed. Check the form to see that the demographic section is fully completed.

As you screen the child, you will check any abnormalities you note. You will sign the form and indicate your status: volunteer, healthcare professional, school nurse, etc.

5 steps to scoliosis screening

- Greet the child by name
 - Shoes on for primary screening
 - Shoes off for secondary screening
- Ask the child to:
 - Step up to the line

 - Put your feet together, weight equally on both legs

 - Take a breath in. Let it out and let your arms hang naturally at your sides

Slide 11

Greet the child by name.

- Shoes may remain on for primary screening; however, instruct child to remove shoes for the secondary screening.

Instruct the child to:

- Step up to the line.
- Put your feet together, weight equally on both legs
- Take a breath in. Breathe out and let your arms hang naturally at your sides.

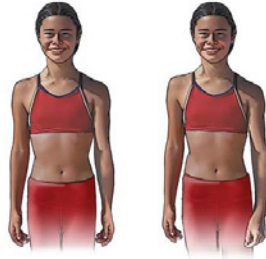
Check to make sure the child is standing correctly. The inner ankle bones (medial malleolus) should be touching. If the child cannot put his feet together, he can stand with his feet slightly apart. Make sure the inner ankle bones are aligned.

5 steps to scoliosis screening

- Step : Front view

- Observe for:

- Shoulder elevation
- Unequal distance between arms and body—one arm hangs out from body more than the other
- Uneven hips—one hip appears higher than the other



Children's Healthcare of Atlanta  12

Slide 12

Observe the end points (outside edge) of the shoulders (outside ends of clavicle). See if the shoulders are even.

Check if one shoulder is higher and which shoulder is higher, left or right. On the screening form, check the higher shoulder.

Does one arm hang out farther from the body than the other so that there is more space at the waist on one side of the body than the other? Check and note the arm that hangs out further from the body.

Does one hip appear higher than the other? On the screening form check the hip that appears higher.

To visualize the hip height you may ask the child to put his hands on the top of his hips.

5 steps to scoliosis screening

- Step 2: Adams Forward Bend Test

Instruct child:

- Put the palms of your hands together, arms out straight
- Put your chin on your chest. Roll down until hands touch your feet



Children's Healthcare of Atlanta  13

Slide 13

Instruct the child to:

- Put the palms of your hands together, arms out straight.
- Put your chin on your chest.
- Keep your knees straight and roll down until your hands touch your feet

The student's back should be parallel to the floor.

5 steps to scoliosis screening

- Step 2: Continued

- Observe for

- Upper rib prominence
- Lower rib prominence
- Lower back (lumbar) prominence



Children's Healthcare of Atlanta  14

Slide 14

Look for:

- High rib prominence
- Low rib prominence
- Lumbar prominence or low back prominence

Mark screening form if prominence is noted and which side is higher.

5 steps to scoliosis screening

- **Step 3: Back view**

- Instruct Child: Turn around and put your toes on the line, weight equally on both legs. Take a breath in. Let it out, and let your arms hang at your sides

- **Observe for:**

- Uneven shoulders
- Shoulder blade difference
 - Elevation and/or prominence
- Waist fold difference
- Unequal distance of arms to body



Children's Healthcare of Atlanta  15

Slide 15

Ask the child to turn around.

Give the following instructions:

- Put your feet together, weight equally on both legs.
- Take a breath in.
- Breathe out, and let your arms hang at your sides.

Recheck to make sure the child is standing correctly—the inner ankle bones are touching or in alignment.

Check if one shoulder is higher and which shoulder is higher, left or right. On the screening form, check the higher shoulder.

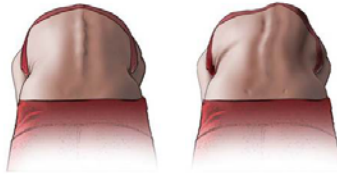
Check if one shoulder blade is higher or more prominent than the other. On the screening form, check the higher or more prominent shoulder blade.

Check if the waist fold is deeper on one side of the body. On the screening form, note the side of the deeper waist fold.

Check to see if one arm hangs out farther from the body. On the screening form, note the arm that hangs out further from the body.

5 steps to scoliosis screening

- Step 4: Bending away
- Instruct child: Put the palms of your hands together, arms out straight. Put your chin on your chest. Roll down until your hands touch your feet
- Observe for:
 - Upper rib prominence
 - Lower rib prominence
 - Lower back (lumbar) prominence



Children's Healthcare of Atlanta  16

Slide 16

Instruct the child to:

- Put the palms of your hands together, arms out straight.
- Put your chin on your chest.
- Roll down until your hands touch your feet.

The student's back should be parallel to the floor.

Look for:

- High rib prominence
- Low rib prominence
- Lumbar prominence or low back prominence

Mark the screening form if prominence is noted and which side is higher.

5 steps to scoliosis screening

- Step 5: Side view
- Instruct child: Turn to the side and put your feet together. Put the palms of your hands together, arms out straight. Put your chin on your chest. Roll down until hands touch your feet
- Look for excessive roundness (kyphosis)



Slide 17

Instruct the child to:

- Turn to your side, feet together.
- Put the palms of your hands together, arms out straight.
- Put your chin on your chest.
- Roll down until your hands touch your feet.

The student's back should be parallel to the floor.

Observe for excessive roundness (kyphosis). Note excessive roundness on the screening form.

Thank the child for coming.

Questions

Slide 18

Ask participants if they have any questions regarding the five-step process.

“Curve Checks” DVD

- Chapters 9 through 14, Screening Children
 - Karlena
 - Erin
 - Brittany
 - Christopher
 - Alexis
 - Valentina
- “Curve Checks” DVD Quiz

Children's Healthcare of Atlanta  19

Slide 19

Pass out “Curve Checks” DVD quizzes to participants.

Explain to attendees: Here is an opportunity to practice. Let’s watch the DVD and circle positive findings on the quiz sheet. The DVD is a 2-D presentation. In real life, the screening is 3-D, therefore makes it easier to visualize differences.

Return to DVD: Play Chapter 9 (Karlena) through Chapter 14 (Valentina), or play each chapter one at a time and then discuss.

Karlena: Classic signs of thoracic scoliosis—right shoulder elevation, right scapula elevation, right rib prominence.

Erin: Negative exam or no signs of scoliosis until viewing lower back or lumbar area. This is why it is important to carefully check the low back area.

Brittany: Possible hip height difference. Thoracic prominence in back view but not in the front. Refer child for second opinion. She also has lumbar prominence.

Christopher: Notice the importance of rolling the wings bones, or scapula, off the ribs in the back to get a good view.

Alexis: It is important to make sure she positions her feet properly; she appears nervous. She also needs to be encouraged to roll down further to see her low back area. Although the screening is inconsistent with regards to arm and body distance in the front view and the back view, she has additional positive signs that indicate she should be referred for a second screening and a positive referral notification letter based on the second screening. If there is time, the screener can repeat the positioning in the front and back views.

Valentina: Due to the 2-D DVD presentation, it is hard to visualize the findings. In a real screening, this will be easier to see.

Questions

Slide 20

Pass out quiz answer key, or have attendees turn to Page 9 in Curve Checks Reference Guide.

- Ask screeners if they have questions.
- Remind first-time screeners and primary screeners that children are screened twice to recheck the findings.
- Secondary screeners will see the primary screening results and rescreen the child documenting the secondary screening results.
- Secondary screeners will note recommendation as negative or referral for positive screening results.

"Curve Checks" DVD

- Chapter 15, Your Job Is Important

Slide 21

Play Chapter 15 of "Curve Checks" DVD.

Documentation, primary screener

- Mark abnormal findings on screening form.
 - Front view
 - Back view
 - Side view
- Primary screener
 - Check negative or refer for second screening
 - Print name
 - Check category of screener's credentials
 - Record any concerns

Children's Healthcare of Atlanta



22

Slide 22

If you are the primary screener, once the screening is complete, check whether it was negative (no abnormal findings), or check refer for second screening.

- Print your name.
- Check the category of screener based on your credentials.
- Under screener notes, record any concerns—a mole, large abrasion, pustule, burn or large bruise.
- Let the school authority at the screening know if you have concerns.

Discuss the process for how screeners should report concerns on the day of the screening.

Documentation, secondary screener

- Mark abnormal findings on screening form.
 - Front view
 - Back view
 - Side view
- Secondary screener:
 - Check negative or referred
 - Print name
 - Check category of screener's credentials
 - Record any concerns

Slide 23

For secondary screeners:

- Instruct child to remove shoes prior to entering secondary screening area.
- Greet the child.
- Review primary screening form.
- Perform five-step screening, guiding the child through the process.
- Note abnormality, if any.
- Check negative or referred.
- Print name.
- Check category of screener based on credentials.
- Make note if needed.
- Document any reasons for difference of screening.

Demonstration and/or practicum

- Demonstration of practicum
- Practicum
- Screening scenarios

Slide 24

Demonstrate how to use the practicum form.

- As the instructor, you can review a screening using volunteers from the present attendees as a screenee and a coach.

Practicum

- You may also have attendees practice on each other.
 - Divide into small groups of three—screener, screenee and coach.
 - Use practicum form from the appendix.
- Walk around the room to see if participants have questions regarding the screening steps.

Scenarios

- Have participants fill out screening scenarios form.
 - Review each screening scenario.

Screening scenarios

Screening No. 1—Katie

- *In front position:*
 - Shoulders are even
 - Arm hangs out from body more on left
 - Hips appear even
- *As she bends forward:*
 - No rib prominence
 - No low back (lumbar) prominence
- *In back position:*
 - Shoulders are even
 - Shoulder blades are even
 - Waist fold is slightly deeper on left
 - Left arm hangs out from her body
- *As she bends forward:*
 - Slight rib prominence on right
 - No low-back (lumbar) prominence
- *In side view:*
 - C-shaped curve
- **Is she a positive screen? Yes No**



Slide 25

Katie is a positive screening for scoliosis.

Screening scenarios

Screening No. 1—Katie

- *In front position:*
 - Shoulders are even
 - Arm hangs out from body more on left
 - Hips appear even
- *As she bends forward:*
 - No rib prominence
 - No low back (lumbar) prominence
- *In back position:*
 - Shoulders are even
 - Shoulder blades are even
 - Waist fold is slightly deeper on left
 - Left arm hangs out from her body
- *As she bends backward:*
 - Slight rib prominence on right
 - No low-back (lumbar) prominence
- *In side view:*
 - C-shaped curve
- *Is she a referral?* Yes No
- *Why or why not?* _____

Children's Healthcare of Atlanta  26

Slide 26

Let's review the positive signs.

In the front position:

- Her arm hangs out from her body more on the left.

In the back position:

- Her waist fold is deeper on the left.
- Her arm hangs out from her body on the left.
- In her rib cage, the right side is higher than the left.

She needs to be referred for a second screening. Yes, she is a referral for a positive screening for scoliosis.

Why:

She has positive signs including a rib prominence or height difference of the ribs in the Adams forward bend test when she bends forward in the back position.

The prominence does not have to be seen in both positions to be referred for a second screening. It may be easier to see in one position more than the other.

Screening is not a diagnosis. Screening notes signs that need further investigation.

Screening scenarios

Screening No. 2-Alonzo

- *In front position:*
 - Shoulders are even
 - Arms hang evenly from body
 - Right hip appear higher than left
 - With hands on hips – right hip appears higher
- *As he bends forward:*
 - Right low-back (lumbar) prominence
- *In back position:*
 - Difficulty maintaining correct feet position
 - Shoulders are even
 - Scapulae are even
 - Waist folds are even
 - Arms hang evenly at his sides
- *As he bends forward:*
 - No prominence
- *In side view:*
 - C-shaped curve
- **Is he a positive screen? ___ Yes ___ No**



Slide 27

Alonzo is a positive screening for scoliosis.

Screening scenarios

Screening No. 2—Alonzo

- *In front position:*
 - Shoulders are even
 - Arms hang evenly from body
 - Right hip appear higher than left
 - With hands on hips — right hip appears higher
- *As he bends forward:*
 - Right low-back (lumbar) prominence
- *In back position:*
 - Difficulty maintaining correct feet position
 - Shoulders are even
 - Scapulae are even
 - Waist folds are even
 - Arms hang evenly at his sides
- *As he bends forward:*
 - No prominence
- *In side view:*
 - C-shaped curve
- *Is he a referral?* Yes No
- *Why or why not?* _____

Children's Healthcare of Atlanta



28

Slide 28

Let's review his positive signs.

- Alonzo appears to have one hip higher than the other when viewed from the front.
- He also has a prominence in the low back area on the right.

Why:

He needs a referral because the hip height difference may need treatment.

If he is young and therefore he is going to get taller, the leg length difference can become greater as he gets taller.

He may also have low back scoliosis or lumbar scoliosis. He is a positive notification letter to determine what is going on.

Screening scenarios

Screening No. 3—Samantha

- *In front position:*
 - Right shoulder higher than left
 - Arms hang evenly from body
 - Hips appear even
- *As she bends forward:*
 - Right rib prominence
 - Low-back (lumbar) area is even
- *In back position:*
 - Shoulders are even
 - Right shoulder blade is elevated and more pronounced
 - Waist folds are even
 - Arms hang evenly from body
- *As she bends forward:*
 - Right rib prominence
 - No low-back (lumbar) prominence
- *In side view:*
 - C-shaped curve
- **Is she a positive screen? Yes No**

Slide 29

Samantha is a positive screen for scoliosis.

She needs to be screened again to confirm the findings.

Screening scenarios

Screening No. 3—Samantha

- *In front position:*
 - **Right shoulder higher than left**
 - Arms hang evenly from body
 - Hips appear even
- *As she bends forward:*
 - **Right rib prominence**
 - Lower-back (lumbar) area is even
- *In back position:*
 - Shoulders are even
 - **Right shoulder blade is elevated and more pronounced**
 - Waist folds are even
 - Arms hang evenly from body
- *As she bends forward:*
 - **Right rib prominence**
 - No low-back (lumbar) prominence
- *In side view:*
 - C-shaped curve
- **Is she a referral?** **Yes** **No**
- **Why or why not?** _____

Children's Healthcare of Atlanta



30

Slide 30

Let's review her positive signs.

In the front position:

- Her shoulder is higher on the right.
- She has a rib cage that is higher on the right than the left.

In the back position:

- Her shoulder blade is higher on the right.
- Her ribs are higher on the right than the left.

She is a referral because:

She has a rib prominence or chest height difference on one side of her body in both the front position and the back position with shoulder blade differences.

She has classic signs for scoliosis in the rib cage area.

Screening scenarios

Screening No. 4—Nikolas

- *In front position:*
 - Shoulders are even
 - Arms hang evenly from body
 - Hips appear even
- *As he bends forward:*
 - Left rib elevation
 - Left low-back (lumbar) elevation
- *In back position:*
 - Left shoulder elevation
 - Left shoulder blade elevation
 - Waist folds are even
 - Arms hang evenly at his sides
- *As he bends forward:*
 - Left rib elevation
 - Then a right rib elevation
 - Then a left low-back (lumbar) elevation
- *In side view:*
 - C-shaped curve
- **Is he a positive screen?** **Yes** **No**

Children's Healthcare of Atlanta



31

Slide 31

Nikolas is a positive screening for scoliosis.

Nikolas needs to be referred for a second screening.

Screening scenarios

Screening No. 4-Nicholas

- In front position:
 - Shoulders are even
 - Arms hang evenly from body
 - Hips appear even
- As he bends forward:
 - Left rib elevation
 - Left low back (lumbar) elevation
- In back position:
 - Left shoulder elevation
 - Left shoulder blade elevation
 - Waist folds are even
 - Arms hang evenly at his sides
- As he bends forward:
 - Left rib elevation
 - Then a right rib elevation
 - Then a left low back (lumbar) elevation
- In side view: C-shaped curve
- Is he a referral? Yes No
- Why or why not? _____

Children's Healthcare of Atlanta



32

Slide 32

Let's review the positive signs.

In the front position:

- The left rib cage is higher than the right.

In the back position:

- He has a shoulder and shoulder blade elevation with a rib prominence on the same side of his body.
- In the lower rib cage area, there is an elevation on the right.
- He also has a low-back or lumbar prominence on the left.

Nicholas is a referral.

Why:

He has rib prominence on one side in the front and back positions. He also has a low back elevation.

He may well have three curves in his back.

Screening scenarios

Screening No. 5—Madison

- *In front position:*
 - Shoulders are even
 - Arms hang evenly from body
 - Hips appear even
- *As she bends forward:*
 - No rib prominence
 - No low back (lumbar) prominence
- *In back position:*
 - Shoulders are even
 - Shoulder blades are even
 - Waist folds are even
 - Arms hang evenly from body
- *As she bends forward:*
 - No rib elevation
 - No low back (lumbar) prominence
- *In side view:* C-shaped curve
- **Is she a positive screen? ___ Yes ___ No**

Slide 33

Madison is a negative screening for scoliosis.

She does not need to be screened a second time.

Screening scenarios

Screening No. 5—Madison

- **In front position:**
 - Shoulders are even
 - Arms hang evenly from body
 - Hips appear even
- **As she bends forward:**
 - No rib prominence
 - No low-back (lumbar) prominence
- **In back position:**
 - Shoulders are even
 - Shoulder blades are even
 - Waist folds are even
 - Arms hang evenly from body
- **As she bends forward:**
 - No rib elevation
 - No low-back (lumbar) prominence
- **In side view:**
 - C-shaped curve
- **Is she a referral?** Yes No
- **Why or why not?** _____

Slide 34

She does not need a referral.

Notes:

We have discussed more positive screenings than negative screenings today.

The examples today have been more positive screening for instructional purposes.

When you are screening you will probably see more children who do not have signs of scoliosis.

Screening scenarios

Screening No. 6—Jacob

- *In front position:*
 - Shoulders are even
 - Arms hang evenly from body
 - Hips appear even
- *As he bends forward:*
 - No rib prominence
 - No low-back (lumbar) prominence
- *In back position:*
 - Shoulders are even
 - Arms hang evenly from body
 - Waist folds are even
 - Arms hang evenly at his sides
- *As he bends forward:*
 - No rib prominence,
 - No low-back (lumbar) prominence
- *In side view:*
 - Hump in the middle of his back
- **Is he a positive screen? ___Yes___No**

Slide 35

Jacob is a positive screen for scoliosis when we look at him in the side bending position.

Screening scenarios

Screening No. 4—Jacob

- *In front position:*
 - Shoulders are even
 - Arms hang evenly from body
 - Hips appear even
- *As he bends forward:*
 - No rib prominence
 - No low-back (lumbar) prominence
- *In back position:*
 - Shoulders are even
 - Arms hang evenly from body
 - Waist folds are even
 - Arms hang evenly at his sides
- *As he bends forward:*
 - No rib prominence
 - No low-back (lumbar) prominence
- *In side view:*
 - Hump in the middle of his back

Is he a referral? Yes No

Why or why not? _____

Children's Healthcare of Atlanta



36

Slide 36

He has a hump or prominence in the middle of his back rather than a C-shaped curve.

Why:

This condition called Scheuermann's kyphosis can cause deformity and pain.

Additional screenings—“Curve Checks” DVD

- Jasmine
- Mahogany

Slide 37

Ask: Would you like to see two additional screenings?

Play Chapter 16 (additional screenings) if needed.

Review the findings:

- Jasmine needs to be encouraged to roll down. She has more subtle signs that are not as easy to note on the 2-D DVD.
- Mahogany also needs to be encouraged to roll down because you can miss her low-back prominence. You might need to ask her to repeat the roll down (Adams Forward Bend Test).

Ask attendees if they have any questions.

Screenings in our school

- Accommodations related to our school
- Dates of screening

Slide 38

School accommodations

Tell participants of any accommodations they should be aware of regarding your school such as:

- Where the children will be screened
- Where the children will put their shirts while being screened
- Dates of screenings

Thank you

- Thank you for coming and learning how to screen adolescents for scoliosis.

Slide 39

Thank your participants.

- If you are beginning the screenings, have screeners move to screening area.
- If you are performing the screenings at a later date, give the dates and time of the screenings.