

# Scoliosis screening

instruction for health workers and volunteers

---



# Introductions

---

# Overview of scoliosis

---

- Description and definition



# 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.

# Overview of scoliosis

---

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

# 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



# Overview of scoliosis

---

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

# “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



# Observe a screening

---

- Normal screening, Daniella, Chapter 8

# 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

# 5 steps to scoliosis screening

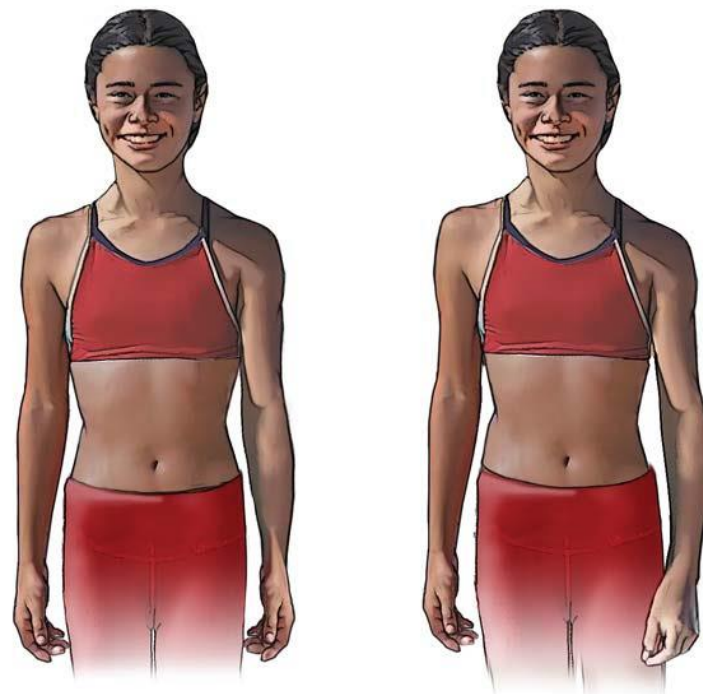
---

- 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

# 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



# 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



# 5 steps to scoliosis screening

---

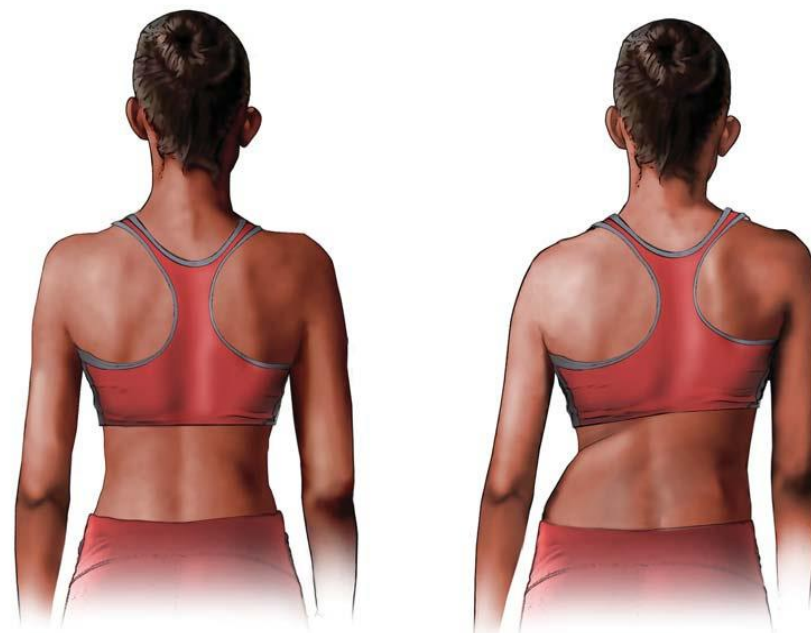
- Step 2: Continued
- Observe for
  - Upper rib prominence
  - Lower rib prominence
  - Lower back (lumbar) prominence



# 5 steps to scoliosis screening

---

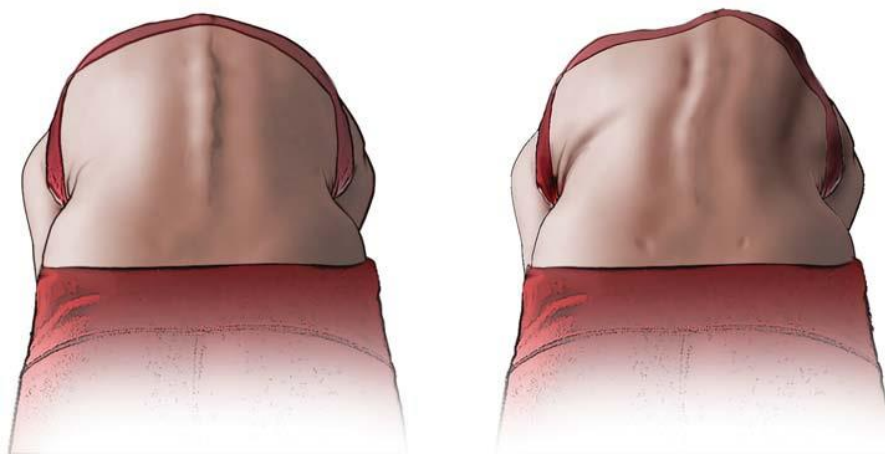
- Step 3: Back view
- Instruct Child: Turn around and put your toes on the line, weight equally on both legs. Take a breath in. Let it out, and let your arms hang at your sides
- Observe for:
  - Uneven shoulders
  - Shoulder blade difference
    - Elevation and/or prominence
  - Waist fold difference
  - Unequal distance of arms to body



# 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





# 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)



# Questions

---



# “Curve Checks” DVD

---

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

# Questions

---



# “Curve Checks” DVD

---

- Chapter 15, Your Job Is Important

# 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

# 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

# Demonstration and/or practicum

---

- Demonstration of practicum
- Practicum
- Screening scenarios



# 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**

# 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 referral?** \_\_\_Yes\_\_\_ No
- **Why or why not?** \_\_\_\_\_



# 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**

# 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? \_\_\_\_\_**



# 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**

# 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? \_\_\_\_\_**



# 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**



# 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 referral?** \_\_\_Yes\_\_\_ No
- **Why or why not?** \_\_\_\_\_





# 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**

# 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?** \_\_\_\_\_

# 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**

# 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 referral?  **Yes**  **No**

Why or why not? \_\_\_\_\_



# Additional screenings—“Curve Checks” DVD

---

- Jasmine
- Mahogany

# Screenings in our school

---

- Accommodations related to our school
- Dates of screening

# Thank you

---

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