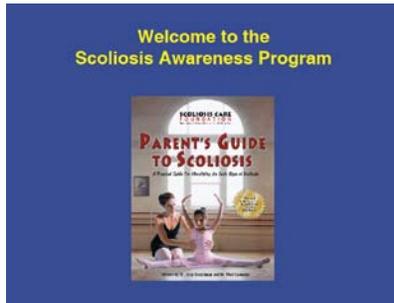


SCOLIOSIS CARE FOUNDATION

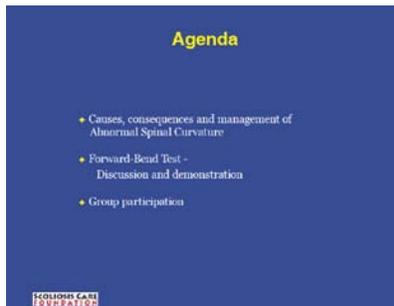
Scoliosis Awareness Program *Recommended Presentation Script*

Have the Title Slide projected on the screen when people are coming into the room.



In addition to the copy on each slide, which you can read aloud as you project it to your audience to help them absorb what you're teaching, there is added information for you to teach your audience. Those script points for each slide follow.

SLIDE 2



If you have any questions during the presentation, feel free to raise your hand and I will do the best I can to answer you.

SLIDE 3



I can't emphasize enough the importance of early detection. As you will learn, the smaller the curvature is when it's detected the better the chance to stop its progression. In many cases smaller curvatures which are treated, can be reversed, and very often a surgery can be avoided.

SLIDE 4

What You Will Learn

- What is Scoliosis?
- Why is it important to detect it early-on?
- Who gets Scoliosis?
- How can Scoliosis be detected?
- What to do if you find it.



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SLIDE 5

What Is Scoliosis?

- A disorder that manifests as a curvature of the spine and associated deformity of the rib cage.
- It usually develops around puberty, and is found most often in females.



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The most common type of scoliosis is called **IDIOPATHIC SCOLIOSIS**. Idiopathic means of unknown origin. When comparing the right and left sides of the bone, scoliosis can ensue, if the growth is asymmetrical in relation to the front and backs of the vertebrae, conditions called Hyperkyphosis or Hyperlordosis can occur.

Other types of Scoliosis may be neuromuscular, which often comes as a secondary problem to diseases like Cerebral Palsy, Muscular dystrophy, Prader Willie Syndrome and Spinal Muscular Atrophy.

SLIDE 6

Why Is Finding Scoliosis In The Early Stages Important?

- Early identification of the disease and early referral can lead to non-surgical management.
- The signs of the disease can be recognized if you are familiar with its various presentations.



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[Have the parents identify the postural distortions seen on this slide.]

New methods of treatment have been developing over the years. Non-bracing approaches have been developed in Germany, Italy and the United States which use various forms of physiotherapy and rehabilitation. Chiropractic techniques have been developed here in the U.S. as well which focus on restoring normal movement and better muscle control. The Spinecor Flexible brace, which is starting to replace the hard shell braces, may accomplish both the rehabilitation of movement, typically seen in therapy, as well as acting as a brace to influence bone growth. As I noted before, the smaller the curve, the easier it is to treat.

SLIDE 7

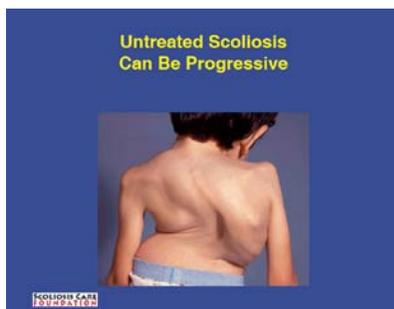


The pictures on the left are the *Before* pictures, this is an X-ray view from the back. This is the left side of the body and this is the right. This is the heart shadow on the left.

The view next to it is the side view of the body. This is the left arm. This is one of the most common curve patterns: a right thoracic curve. The spine is curving to the right and twisting at the same time.

This is a 9 ½ year old female with a 36 degree curvature. The X-ray on the right is the same girl after 15 months in a flexible brace. Her curve is now 2 degrees. That is a great example of how early detection, especially at a young age, can have a great outcome. It's even better when you detect the curvatures when they are under 20 degrees.

SLIDE 8



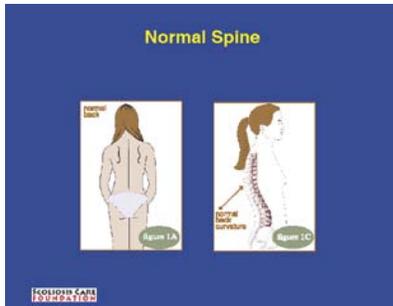
Not all scoliosis curvatures will progress to this degree. I show you this slide because every case is unique, and we don't know who will progress to this degree. That's why we are all here.

SLIDE 9

- Females are 10 times more likely to develop scoliosis.
- Ages can vary, although the majority of the cases develop between the ages of 10 and 16.
- Scoliosis runs in families (50% more likely in offspring of those affected).
- Dancers and Rhythmic gymnasts are 20 times more likely to develop progressive scoliosis (as per recent published studies).

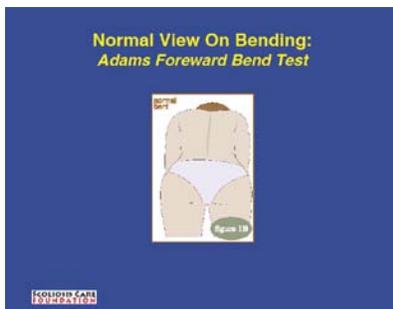
We don't believe it is the dancing that causes the scoliosis. It seems that most of these dancers are very low in body fat and very flexible. Many of them have a late onset of their menstrual cycle as well. So it appears that they are attracted to dance because they can excel at it more easily due to their flexibility.

SLIDE 10



This picture is from the Scoliosis Care Foundation booklet, *“The Parents Guide to Scoliosis”*. It shows a normal back and side view.

SLIDE 11



The Adams test is the most commonly used by doctors and school nurses to screen for scoliosis. However, it is not without controversy due to its lack of sensitivity and specificity. There are 26 states that mandate scoliosis screening in the public schools. The reason some states have stopped screening is because of the many false positives and false negatives this method provides.

SLIDE 12



[Some parents will probably call out ‘curved back, high shoulder, tilted hips]

You’re all right. This picture is a positive Adams test.

SLIDE 13



This is what may be happening on the inside. Obviously this one would be easy to notice. As you can see, the spine is rotating. When it rotates, the ribs on the left side go forward and come closer together. This is called the concavity. The ribs on the right side go back, or posterior, and this will often times cause a protrusion of the shoulder blade.

SLIDE 14



Now I think we're ready to get down to business.

These pictures represent the four most common curvature patterns. Let's take one at a time and analyze what we see.

SLIDE 15

**Right Thoracic:
The Most Common Pattern**

- The right thoracic curvature pattern is the most common found in idiopathic scoliosis.
- It can be identified by the hallmark right sided rib hump, and often includes an elevated right shoulder with forward rounding.
- A left lower back muscle prominence may also be present in this type, although it is not always the case.
- The center of gravity is shifted to the child's right. When viewing from behind, the right scapula may appear winged and elevated from the rib cage.

[Point this out on your own body. Shift you posture and explain each deviation.]

SLIDE 16

Left Lumbar Curvature

Left Lumbar

- The left lumbar pattern is also quite common. The most common postural disorganization includes a lower hip on the child's left side. The waste angle is closed on the right and open on the left. The center of gravity is often shifted to the child's left.



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[Demonstrate and explain pattern.]

SLIDE 17

Left Thoracolumbar

Left Thoracolumbar

- This type of curvature is accompanied by a left sided muscle prominence and may look similar to a left thoracic curvature when the rib cage is involved.



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[Demonstrate and explain pattern.]

SLIDE 18

Right Thoracic / Left Thoracolumbar

Right Thoracic Left Lumbar

- The double major curvatures may be undetectable due to the relative balancing of the posture. A pronounced waist curve on the right may be evident. The left hip may also appear slightly lower.



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[Demonstrate and explain pattern.]

This is the most difficult type to identify without the use of X-ray. One curvature tends to balance out the other curvature in the visible posture.

SLIDE 19



[Let them call out their guesses.]

Yes, this is Right Thoracic / Left lumbar. We sometimes call this a "double major". Because one curvature goes right and the other left, they create balance. This is one of the more difficult ones to detect. The right shoulder will still be forward and the waist angle uneven.

SLIDE 20



[Let them call out their guesses.]

This is a Left Thoraco-Lumbar. Sometimes this will present without the hip being lower on one side, other times the low hip will be there.

SLIDE 21



[Let them call out their guesses.]

Yes this is a Left Lumbar. This pattern has more shift of the body to the right. This is because the curvature bends from a lower point.

SLIDE 22

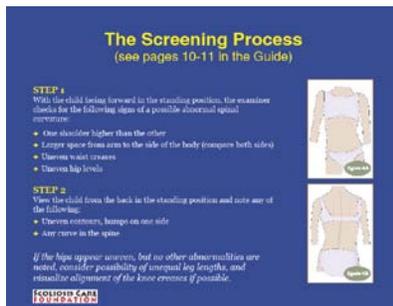


[Let them call out their guesses.]

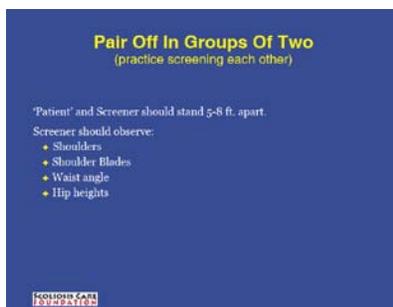
Right thoracic. This is the most common pattern. Notice the forward right shoulder, the protruding ribs on the left and sometimes a shift in posture. From behind we saw the shoulder blade protrude as well.

In the early stages of these curves you may only get to see one component.

SLIDE 23



SLIDE 24



OK, let's pair off and look at posture. One person is an A and the other a B. Let's have A's look at B's

Let's first look at the shoulders, look at the position of the head. Now work your way down, are the arms equally spaced from the body?

Look at the hip heights, and if your partner doesn't mind put your hands on the hips and see if they appear even. Does anyone have some positive findings? Let's look at the positive ones as a group, with the permission of the individual being singled out.

[At this time you can go back to the slides that show the curvature patterns and have them try and duplicate the postural distortion.]

SLIDE 25

How Scoliosis Can Be Detected

- Best method is an X-ray of the full spine.
- However, postural observations, such as those performed during a "spinal screening," are the first line of detection.
- The Adams Test -- the traditional standard -- is not the only initial means of detection, as you now know.



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SLIDE 26

Adams Forward Bend Test

- Ask the child to clasp their hands and place them between their knees as they bend forward at the waist.



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Now the Adams Test can be used in conjunction with the other findings, and it will yield much more sensitive specific results.

[Take a moment and have the group practice the Adams test with a partner.]

SLIDE 27

Using A Scollimeter

- Place the scoliometer gently across the child's back at the point where a hump or unevenness is most prominent.
- The number "0" should be directly over the top ridge of the spine.
- Do not press down on the device as that can distort the reading.
- Re-evaluation is recommended for children with a reading of 5 degrees or more.
- When a reading of 5 - 7 degrees is reproduced, a referral should be made to a professional.



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The Scoliometer is a tool that has been used by doctors and nurses for many years to measure the angle of the ribs and lumbar musculature. Very often the decision to X-ray or not is determined by changes in this measurement.

SLIDE 28

Record Keeping & The Importance Of A Second Opinion

- Always keep a record of the results of your examination.
- When a positive finding occurs:
 - Take your child to a Scoliosis Care Professional for further evaluation and a second opinion.
 - An x-ray will be recommended to confirm the presence of Scoliosis.
 - Do not attempt to make a definitive diagnosis yourself.
 - Please remember, you are not a medical professional!

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SLIDE 29

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1-800-391-8837
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Gary Deutchman, DC Founder (left)
Marc Lamantia, DC, DACNB

I want to thank you for your dedication to helping our children. I would also like to acknowledge the authors of this program, Dr. Gary Deutchman and Dr. Marc Lamantia.

They are dedicated to helping parents detect scoliosis as early as possible. They have a private practice located in New York City, and 12 satellite offices where they provide the *Spinecor Flexible Brace* to children and adults with scoliosis.

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