

Scoliosis

By Deb Ilardi, RN, BSN

In the May 2001 issue of School Nurse News, you were introduced to New York school nurse and author Deb Ilardi and her 13-year old daughter Kim, who had recently been diagnosed with scoliosis. This is the second of a series of articles on scoliosis written with the intent of helping the practicing school nurse realize the importance of conducting school spinal screenings and the impact of positive findings. Deb shares her family's experience with us from the perspective of a school nurse and, more important, from the perspective of a parent whose child has been diagnosed with scoliosis.

During the next few months, school nurses across the nation will be performing various types of health screening on students. Scoliosis screening, unlike vision and hearing screenings, is not mandatory in all states (see States that Require Postural Screening for Spinal Curvatures on the next page). The National Scoliosis Foundation, Inc. has come forward to encourage all school nurses to perform an annual screening for the early detection and prevention of the spinal curvature problems known as scoliosis, kyphosis, and lordosis.

What is scoliosis? Scoliosis is a sideways (lateral) curving of the spine usually developing in pre- and early adolescence. An annual postural screening between ages 10 and 15 can make a lifetime of difference.

WHAT TO LOOK FOR WHEN SCREENING:

Normal

Student should be standing upright with back to you

- head centered over mid-buttocks
 - shoulders level
 - shoulder blades level, equal prominence
 - hips level and symmetrical
 - equal distance between arms and body
- Student should be standing with back to you, bent over at waist*
- both sides of upper and lower back symmetrical
 - hips level and symmetrical

Student should be facing you, bent over at waist

- even and symmetrical on both sides of the upper and lower back

Possible Scoliosis

Student should be standing upright with back to you

- head alignment to one side of mid-buttocks
 - one shoulder higher
 - one shoulder blade higher with possible prominence
 - one hip more prominent than the other
 - unequal distance between arms and body
- Student should be standing with back to you, bent over at waist*

- one side of rib cage and/or the lower back showing uneven symmetry
- Student should be facing you, bent over at waist*
- unequal symmetry of the upper back, lower back, or both

ALSO SCREEN FOR KYPHOSIS:

Normal

Student in profile view, bent over at waist

- smooth, symmetrical, even arc of the back

Possible Kyphosis ("round back")

Student in profile view, bent over at waist

- lack of smooth arc, with prominence of shoulders, and round back

If one or more physical features suggest scoliosis or kyphosis, a professional diagnosis should be sought. This annual screening could make the difference between a preventable condition and a disability in adult years.

ARE YOU PREPARED TO HANDLE A POSITIVE FINDING?

You've detected abnormal spinal features in one of the students you've screened and must report the findings to the child's parents. A difficult responsibility? Yes, but remember that students and their families will benefit *every time* you use your skills, knowledge and talent in an interaction with them. How have you prepared to handle this type of situation? You must think and plan, even for the "routine" practice of reporting abnormal spinal screening findings. How will these results

"Through early detection, the school nurse is in a unique position to counsel families and students on any condition that has the potential to result in deformity. Spinal screening is one example. The school nurse is prepared to meet the psychosocial needs of the whole child and family unit. Discussing current treatment options, even if observation is the only treatment, is part of that process. Little is gained by waiting to discuss the course and prognosis of scoliosis until the condition is severe enough to require bracing or surgery."

— Linda Haubner, RN, BSN

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be received? How well do you know the family, the student? To whom will you give the initial information? How will these results be received? If you haven't considered these specific needs, you're missing a great opportunity for health education.

INFORMATION ON TREATMENTS FOR SCOLIOSIS

Since the development of the molded body brace, little has changed in scoliosis treatment recommendations. What will evolve in the next decade? Consider these options:

- Structurally deformed parts of the skeleton — hips, knees and fingers — can now be replaced.
- Supporting structures — muscles, tendons and ligaments — can be repaired and grafted.

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STATES THAT REQUIRE POSTURAL SCREENING FOR SPINAL CURVATURES

State	Year Passed	Age/Grades Screened
Alabama	1984	Ages 11-14
Arkansas	1987	Grades 5-10 for Girls Grades 6, 8 and 10 for Boys
California	1980	Grade 7 for Girls Grade 8 for Boys
Connecticut	1982	Grades 5 and 8
Delaware	1978	Grades 4-10
Florida	1974	Grade 7
Georgia	1983	Recommended Grades 5-9
Indiana	1984	Grades 5, 7 and 9
Kentucky	1982	Grades 6-9
Maine	1981	Grades 5-8
Maryland	1982	Grades 6, 7 or 8
Massachusetts	1980	Grades 5-9
Nevada	1983	One grade prior to high school
New Hampshire	1983	Grades 5-9
New Jersey	1978	Ages 10-18
New York	1978	Ages 8-16
Pennsylvania	1982	Grades 6 and 7
Rhode Island	1981	Grades 6-8
Texas	1985	Grades 6 and 9
Vermont	1984	Ages 10-16 / Grades 5-10
Utah	1996	To be determined.
Washington	1979	Estimated Grades 5-9 Grades 5, 7 and 9

Results of a survey by the National Scoliosis Foundation, February 1996

- Spinal discs can be fused, removed or repaired.

There are possibilities, yet unexplored, for the creation of a healthy spine. Scoliosis treatment will undoubtedly improve.

Why is that an important perspective to the school nurse? Because the diagnosis of spinal deformity is not life threatening. Nor is it necessarily life limiting. That information must be communicated to the student and family. What students and families need first is awareness, then acceptance, then evaluation. As the school nurse, you can use your nursing care to prepare students and families for this experience. The school nurse who performed my daughter's screening just weeks before her physical examination did not detect any abnormality; the Nurse Practitioner who discovered the scoliosis was not aware that radiographic documentation was even advisable. It was my school nursing knowledge and experience that led to this evaluation. *You can make a difference.*

My daughter, my husband, and I met Dr. Stephen Albanese, our orthopedic specialist,

expect from a visit like this? If you can't, you have lost another opportunity to teach the public what nursing care really is. With the impending nursing shortage, that is a real shame. In my personal experience, the only registered nurse we would have encountered in this entire process (excluding the Nurse Practitioner who performed my daughter's physical examination) would have been the school nurse!

Dr. Albanese comments on a few things right away. "Kimberly, you hide your curve remarkably well." We ask for further explanation and he shows us how subtle her findings are on examination. He adds that she has good flexibility and strength. Then he orders another x-ray.

My husband has only taken a few hours away from his job for this visit. The crowded waiting room in the x-ray department only adds to his anxiety and frustration. Why are repeat x-rays needed? We learn that our primary care provider's equipment allowed the entire spine to be viewed only by combining two separate films. Here, special three-foot film allows the entire spine to be

in the office of the Harrison Orthopedic Center, in Syracuse, New York for our initial consultation. His surgical resident did my daughter's initial history and assessment. Again, only because I am aware of the hierarchy of health care in a university setting, did I understand why this was necessary. Dr. Albanese himself has a very friendly, comfortable approach that is child-centered. He put me at ease. Kimberly seemed remarkably poised for a 13-year-old.

Does your district's spinal screening referral form do justice to the process that lies ahead for families? Can you explain to the student and his or her family what to

viewed in a continuous picture, and the measurement of Cobb angles will be more accurate. The findings differ. The curve is worse than we expected.

The new x-ray shows the low lumbar curve to be about 45 degrees. Some books I've read say surgery is recommended at 40 degrees. My stomach does cartwheels. My husband is calm, and my daughter is quiet. What will the recommendations be?

Even with this degree of abnormality, watchful waiting is recommended. Imagine that! She is too far along for bracing to make a difference, and too flexible to require surgery at this time. I feel immediate relief. I think this is "good news." Again I marvel at the way being educated and prepared for this information has helped me. And I wonder just how little I have prepared the parents whose children I have referred ...

So, back to the "message" for the school nurse from the parent's perspective ... be honest — scrupulously honest. Speak from your body of knowledge. If you find that information lacking, educate yourself, because the basics are simple, and it should be you who shares that information if you are the one doing the screening. A child either has a spinal curvature or does not. Baseline information is imperative, a starting point, a reference. Parents and children are entitled to it, and should insist on it, whenever screening findings are abnormal. Not because it means anything can be done to slow or stop the progress, but because it is from that knowledge base that thoughtful plans can be developed. Be the child's advocate. *Please.* ☺

RESOURCES

The National Scoliosis Foundation (and some state agencies) provides prescreening educational material and information on screening guidelines at no cost to schools. Contact the National Scoliosis Foundation, 5 Cabot Place, Stoughton, MA 02072; telephone (781) 341-6333, or email scoliosis@aol.com.

ABOUT THE AUTHOR

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