

# OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Wayne Terai

## What's Wrong With In-School Scoliosis Screenings? Part Two: The Latest Research

*Think your child doesn't need to be screened by a doctor of chiropractic for scoliosis because he or she receives yearly in-school evaluations? Think again. Late-breaking research reveals that, in general, school-based scoliosis screenings are ineffective. Dr. Terai is unnerved by these reports, and is working to educate the community about effective scoliosis detection strategies.*



### Research Reveals Major Downfalls of In-School Scoliosis Screening

What research regarding in-school scoliosis screening does Dr. Terai want the community to know about? For starters, a just-published meta-analysis concludes that in-school scoliosis screenings are “insufficient” (*Spine* 2010;35:1061-71).

The study's authors explain that “the use of school scoliosis screening is controversial, and its clinical effectiveness has been diversely reported.” To find out more, they pooled data from 36 scientific inquiries on the topic.

The success rate for detecting curves of 10 to 19 degrees was 28.0 percent. The success rate for detecting curves of 20 degrees or larger was 5.6 percent. Overall, 5 percent of students

were referred for X-rays and only 2.6 percent received treatment for scoliosis.

Findings also revealed that, compared with in-school programs using other tests, those using the forward bending test (FBT) alone were significantly more problematic. The FBT is the most common — and frequently the only — assessment used in school screenings.

“The use of the FBT alone in school scoliosis screening is insufficient,” conclude the study's authors. “We need large, retrospective cohort studies with sufficient follow-up to properly assess the clinical effectiveness of school scoliosis screening.” (*Spine* 2010;35:1061-71.)

### Past Research

As part of one experiment published in the *Journal of the American Medical Association (JAMA)*, investigators sifted through data on 2,242 children who attended kindergarten or first grade in Rochester, Minnesota. All participants underwent annual in-school scoliosis screenings in grades five through nine.

### Does Your Child's School Need Improved Scoliosis Screening?

Simply because scoliosis screenings are held in schools does not inherently make them inaccurate. If these examinations are more comprehensive than they generally are, and if they are conducted by a chiropractor with extensive training in scoliosis and the functioning of the spine, they may be extremely helpful. That's why many schools are asking doctors of chiropractic to evaluate their screening programs and help them create more effective protocols.

Does your child's school need to rethink its scoliosis screening program? If so, ask Dr. Terai about the materials and presentations we have available to share with teachers, school nurses and school administrators. By encouraging school officials to schedule a meeting with Dr. Terai, you may be helping countless children receive quality scoliosis screenings, early detection and successful long-term results.

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A total of 92 children were referred for further evaluation, although only 74 percent of these students received chiropractic or medical follow-up.

Altogether, 27 of the students referred for evaluation were diagnosed with scoliosis by age 19. However, only five of these subjects were treated for the disorder. The study's authors conclude that in-school scoliosis screening is not effective. Instead, they urge parents and health-care practitioners to monitor youngsters for signs of scoliosis (*JAMA* 1999;282:1427-32).

### **The Problems With In-School Screens**

So the research indicates that in-school scoliosis screenings are faulty. But why is that? Here are the most prevalent reasons:

#### ***In-School Screenings Are Not Conducted By Doctors Who Focus on the Spine***

In-school scoliosis examinations are often not conducted by professionals familiar with the spine. Instead, school-based screenings are performed by school nurses or medical professionals who are trained in general medicine. In some cases, scoliosis screenings aren't even conducted by health professionals at all, but by volunteers with only a few hours of training.

#### ***In-School Screenings Lack Follow-Up***

School-based screenings lack the regular follow-up vital to controlling scoliosis.

According to a study published in the *Journal of the American Medical Association (JAMA)*, only 74 percent of children with a positive in-school scoliosis screening actually received any follow-up (*JAMA* 1999; 282:1427-32).

Follow-up is essential to ensuring that children with positive scoliosis screenings receive further evaluation and treatment. Unfortunately, kids

with positive in-school screenings often "fall through the cracks". This is because the people administering the screenings are often not the same practitioners who provide the follow-up evaluations.

Rather than being closely monitored and tracked, children with positive in-school screenings are often simply referred to another practitioner. Parents who are not educated about why this further evaluation is important may fail to schedule the follow-up appointment.

### ***In-School Screenings Are Not Comprehensive***

Another pitfall of in-school screenings, say researchers, is the type of evaluation techniques used. The screening is often cursory, with only one or two tests performed. What's more, research reveals that the most popular evaluation tool used at these screenings, the forward-bending test (FBT), fails to detect many cases of scoliosis.



As explained previously, a just-published analysis concludes that the use of the FBT alone in school scoliosis screening is "insufficient". (*Spine* 2010;35:1061-71.) But that's not the only study critical of the FBT.

An earlier report found that the FBT "cannot be considered a safe diagnostic criterion for the early detection of scoliosis (especially when it is used as the only screening tool) because it results in an unacceptable number of false-negative findings."

According to the report, the FBT fails to detect a significant number of scoliosis cases, especially when it is used as the sole screening method — as is often the case in school-based screenings (*Spine* 1999;24:2318-24).

As part of this study, investigators in Greece collected data on 2,700 students who underwent scoliosis screening. All participants were aged 8 to 16 years at the time of the examinations, which included the FBT, as well as three other assessments for scoliosis.

At a 10-year follow-up, the researchers determined that the FBT failed to detect five cases of scoliosis. This number may seem low, but it is statistically significant, say the study's authors.

The article concluded that, "The widespread use of school scoliosis screening with the use of the forward-bending test must be questioned." (*Spine* 1999;24:2318-24.)

### **Turn to Chiropractic First**

Even if your child has tested negative in school screenings, it is still essential to schedule your child for a chiropractic evaluation.

If your child has already been diagnosed with scoliosis, make sure to schedule a chiropractic checkup before turning to more aggressive treatment options, which may have adverse effects.

And, don't forget to talk to the doctor about how you can both work together with your child's school to improve scoliosis screening for all of the school's students.

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