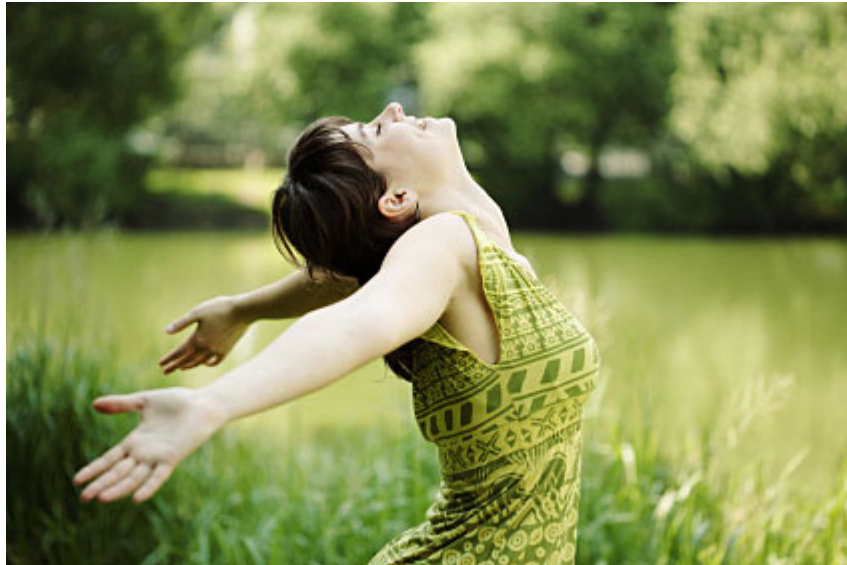




Scoliosis

WHAT EVERY PARENT NEEDS TO KNOW ABOUT SCOLIOSIS



Scoliosis (sko-le-o sis)

Lateral curvature of the spinal column. Dorland's Medical Dictionary

Your 10-year old daughter tells you that she has been having pain on the right side of her middle back. Because she's enrolled in gymnastics and soccer; you attribute her pain to overdoing it a little. However; over the course of the following few weeks, her complaints become more frequent and she says the pain seems to be getting worse. You take her to her doctor and she's diagnosed with scoliosis. Several thoughts race through your mind. Is it normal? Is it serious? Will it go away? What can I do? What can my child do?

The Good News About Scoliosis

The good news is that most cases of scoliosis are not life threatening nor require surgery. In fact, although scoliosis is the most common spinal abnormality (it affects approximately 1-3% of the population), the actual cases that require surgical intervention is less than 1 in several thousands. Scoliosis, however, cannot be taken lightly. The most important thing, as it is with most health conditions, is to detect it early. Once detected, frequent monitoring is necessary to assess the progression of the curve(s) so that the appropriate treatment plan can be followed.

What is Scoliosis?

Scoliosis is defined as the lateral or sideways curvature(s) of the spinal column. The different forms of scoliosis make a list as long as your arm! However, 80% of scoliosis cases are what is known as idiopathic, which actually means the cause is unknown. Adolescent idiopathic scoliosis, known as AIS, is the most common form of scoliosis. It is common to have a rib hump associated with scoliotic curve due to the fact that when the spine curves sideways it often also rotates, causing the ribs on the side of the curve to be more prominent. The rib hump can best be seen when your child bends forward to touch their toes.

Keys to Understanding and Treating Scoliosis, Grading Scoliosis, Curvature Onset, Skeletal Maturity

Typically, the earlier the onset of the curvature, the more potential it has to progress. One of the most common forms of grading the onset of the curve is the Risser's sign. The grading system goes from 0 (skeletal immature) to +5 (fully skeletal mature). When the spine matures skeletally, the curve will typically stop progressing.

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Measuring the Curve

The most common method of quantifying the scoliosis curve is by measurement known as the Cobb angle. This measurement is very important because it has a direct relationship to the treatment plan and ultimate prognosis.

Types of Scoliosis

Structural vs. Functional

In order to implement an appropriate treatment plan for your child, it is important to know the type of curvature(s) your child has. For this purpose we will discuss only the scoliosis classification concerning the flexibility of the spine. There are two types in this classification, structural and functional scoliosis.

Functional Scoliosis

With a functional scoliosis, the curve corrects itself at least in part with forward bending of the spine. Basically this type of scoliosis can be seen as 'flexible'. Functional curves are caused by an underlying condition such as a difference in leg length, back muscle spasms, or inflammatory conditions such as appendicitis. Doctors treat this type of scoliosis by correcting the underlying problem (for example, specific chiropractic adjustments which can influence leg length differences and decrease muscle spasms, or provide orthotics -inserts for your shoes and sneakers – to correct the difference in leg lengths).

Structural Scoliosis

This type of curvature fails to correct itself with forward bending of the spine. You can see this type as being inflexible. Structural have many causes including neuromuscular (for example in polio and cerebral palsy), genetic, and idiopathic (where the cause is unknown, however a strong genetic component is suspected).

Idiopathic Scoliosis

The most common form of scoliosis, accounting for up to 80% of the cases. The cause in these cases is unknown. Adolescent idiopathic scoliosis is by far the most common form of scoliosis.

- *Girls are affected more than boys, with a ratio of up to 9:1*
- *The most common curvature is right sided in the middle back (thoracic spine)*
- *The critical time period for progression – which may be rapid – is between 10-16 years of age.*

Although progression after skeletal maturity is uncommon, these curvatures may increase up to 15 degrees later in adult life leading to degenerative osteoarthritis, which may increase the possibility of pinched nerve or irritated nerves.

3 Steps to detecting Scoliosis in Your Child

Although many states have mandated scoliosis screening, many children slip through the cracks and go undiagnosed. Several studies report that every 1 out of 6 children with scoliosis may go undetected! Therefore, parents need to be aware of the possibility of this disorder affecting their child, especially during the rapid growth period from approximately ages 10-16. It is important to remember that scoliosis has a strong gender predisposition. As stated earlier, with adolescent idiopathic scoliosis, the girls are more likely affected. Some studies report girls having scoliosis 3 to 9 times the rate of boys.

If your child has not had a doctor of chiropractic examine their spine, it would be wise to arrange that by the time they reach age 10. This would include detailed physical examination, and if warranted, x-rays. In the meantime here are several things to look for.

1. *While standing behind your child compare the level of the ears, shoulders and hips. Each pair should be approximately equal of symmetrical. A yardstick or other straightedge is very helpful to reveal uneven levels.*
2. *With your index and middle fingers held together, run them from the top of your child's back to the bottom. Pay special attention to see if your fingers make any subtle or sudden deviations while going straight down the big bumps or "spinous process) in the middle of their back.*
3. *Finally ask your child to bend forward slowly. Watch from behind and look closely at your child's spine. Watch to see if while bending – or even when they are fully bent over – if there are any rib humps or curving of the spine. Once they reach the full bent over position, you may again run your index and middle fingers along the spine from top to bottom to feel if there is any curving.*

6 Factors that Influence Your Child's Scoliosis

There are several factors that can influence the progression of your child's scoliotic condition:

1. *Onset of menarche (menstrual cycle)*
2. *Curvature pattern (the type and location in the spine)*
3. *Age (earlier onset in adolescence will typically indicate greater curve potential)*
4. *Skeletal maturity (Risser's sign is detected on x-ray, and associated with growth potential of the curve)*
5. *Family history (there is a strong genetic association with scoliosis, therefore be sure to have siblings evaluated as well)*
6. *Playing a unilateral or dominant side of the body sport or activity like tennis, bowling, baseball or softball. These "one sided" or repeated motion activities can lead to developing muscles on one side of the body more than the other.*

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Your Child Has Been Diagnosed With Scoliosis...Now What?

The first thing to do is seek advice from a competent provider with experience managing scoliosis and determine your options. Again, most beginning stages of scoliosis are not surgical candidates. Remember surgery for scoliosis is not very common. With that said, your child will need to be more proactive with stretching, exercising, getting good nutrition, and maintaining proper alignment and flexibility of their spine. Your chiropractic will assist with this program.

If scoliosis is present, your child's spine should be assessed at 3-4 month intervals. Your chiropractic doctor is able to determine which approach to treatment is most advisable. Chiropractic care may include spinal adjustments, exercise and postural and everyday activity advice. Severe cases are referred for additional care.

Remember:

Pay attention to any symptoms your child reports such as “growing pains”, fatigue, or back or leg pain. Scoliosis may not cause symptoms so a thorough chiropractic examination may be required.

Chiropractic care assists in maintaining the mobility and flexibility of the joints of the spine, and may help the spine to develop normally. Depending on the type of curvature your child has, proper treatment may prevent progression of the curve – and may even help reduce it. With scoliosis, an ounce of prevention is worth a pound of cure.