Posture Plus

Article: SCOLIOSIS – SIGNS, SYMPTOMS & SUPPORT

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As all of us know, preadolescence and adolescence are challenging times in development. Not only are you experiencing incredible changes in your body, with hormones awakening and affecting your moods, but you are also just beginning to decipher who you are and where you fit in. Adolescent Idiopathic Scoliosis (AIS) affects children of this very age group.

What Is Scoliosis?

Scoliosis is defined as an abnormal curvature of the spine. Most cases of scoliosis are of idiopathic, meaning unknown, cause. Occasionally, an underlying disease affecting the neuromuscular system, leg length discrepancy or a birth defect may cause scoliosis. Scoliosis occurs more commonly in girls than in boys. Some evidence suggests scoliosis may run in families. Yet again, doctors are uncertain of the cause. This curvature of the spine becomes more apparent during growth spurts in the preadolescent and adolescent stages. More severe cases of scoliosis may require wearing a brace, surgery or both. Cases of severe scoliosis can impede proper organ function, cause back pain and interfere with breathing. Another factor that can indicate the potential of the severity of the spinal curve includes the age of the child upon detection. If the scoliosis appears at an earlier age, the more likely it is that the curve will increase. Furthermore, curves in the upper back are more likely to progress in size than those in the lower back.

Signs of Scoliosis

If you suspect your child may have scoliosis, signs to look for include uneven shoulders or one shoulder blade appearing more prominent than the other. You may also notice the child has one hip higher than the other or a tendency to lean to one side. Inexplicable fatigue is another symptom of scoliosis. Parental observation is important, but a diagnosis from a paediatrician or general practitioner is necessary to ensure the proper monitoring and course of treatment. Diagnosis usually consists of the physician's observation of the alignment of the hips, shoulders, legs, spine and musculature near the spine. An X-ray is also used to confirm diagnosis and assess the degree of the curvature of the spine.

Treatment & Management

Options in treatment depend upon the likelihood that the curve will worsen. Children with a 20-degree curve and four more years of growth ahead of them may require treatment, while a child with a 29-degree curvature who has stopped growing may not. In the medical community the most common way to address scoliosis is to monitor the patient. If a curvature is less than 25 degrees, the patient is monitored every four to six months. Curves greater than 25 degrees but less than 30 degrees are usually treated with a brace, and curves greater than 45 degrees are evaluated for the possibility of surgical correction. Surgical correction involves fusing vertebrae together and sometimes using rods alongside either side of the spine to reinforce the fusion.

There are also other ways to manage scoliosis. Most adolescents are able to participate in all sports and activities provided they do not cause pain. In fact, many studies support the practice of different forms of posture training exercise that can aid in the correction of spinal curves. Pilates helps to stabilize core abdominal muscles, improve biomechanics and stabilize the spine. Yoga improves balance and promotes flexible, strong musculature. The added benefit of these forms of exercise is that increases a person's body awareness, which alerts them to the state of their posture at any given time. Physiotherapists will assess and provide specific exercises to help strengthen overstretched muscles in the curve and recommend stretches to lengthen shortened muscles in the curve to balance spinal muscles. Clinically trained massage therapists also have techniques to stimulate over-lengthened tissues, give pain relief to shortened tissues and retrain breathing patterns.

Much of the recent scoliosis research has been geared toward looking for a scoliosis gene. Some findings show a link to low bone density in AIS. Other studies support a strong correlation between osteoporosis and AIS. However, low bone density is caused by several factors, genetics only being one. Other considerations when looking at low bone density are a patient's oestrogen levels, exercise levels, nutrition and any drugs they may be taking.

Providing Support

Finally, parents can help with any negative self-image issues their child may have after being diagnosed with scoliosis. Preadolescent and adolescent children are already very self-conscious and sensitive at this stage of development. Wearing a brace, undergoing surgery, or even just being monitored can affect their self-esteem. There are a few books written for teens with scoliosis, including *There's an "S" on My Back: S Is for Scoliosis and Stand Tall, Harry,* both written by Mary Mahony. Author Judy Blume's Deenie is another novel aimed at coming-of-age teens with scoliosis. Consult your doctor and other health care professional to screen your child and provide the best support for your child if scoliosis is diagnosed.