Scoliosis

Do you remember when you were in school and you had your spine screened by the school nurse? Everyone was paraded down to the nurse's office, stood in line, and one by one stood in front of her and bent forward at the waist. She wasn't just checking to see if you could bend over, she was checking your spine for scoliosis.

Scoliosis is a condition in which the spine deviates from its normal curvature. As long as man has walked on the earth, there has been scoliosis. Cave drawings have been found depicting these spinal deformities in early man. Hippocrates is credited with calling any abnormal curvature of the spine "skoliosis."

Over the millennia many treatments have been attempted. Hippocrates attempted to brace the scoliotic spine. This, or some iteration of it, became the primary treatment of the condition until the early 1900s. In 1914 the first spinal fusion was performed for this condition, and in 1946 the Milwaukee brace was developed. Since that time a number of physical medicine and orthopedic procedures have been developed to treat scoliosis at variable stages of the disease.

Today we consider scoliosis a rotational deformity of the spine and ribs. At its mildest it is principally a cosmetic issue. At its worst it can compress the organs of the chest and abdomen and in extreme cases it can be life threatening.

There are a number of classifications of scoliosis, but the most common is called idiopathic scoliosis. Idiopathic is a term that means unknown etiology. In other words, we really do not know what causes the majority of scoliosis cases. Despite this, it is believed that there may be a genetic cause to this form of scoliosis.

Scoliosis can also be caused by trauma, such as a spinal fracture, after surgery, or as a consequence of conditions such as rheumatoid arthritis, or congenital diseases such as Marfan's syndrome and some forms of dwarfism.

Scoliosis occurs far more often in girls than in boys. Girls make up approximately 80% of all cases. This condition is often classified by the age at which it first occurs. Infantile scoliosis occurs from birth to three years of age and usually occurs in boys in this age group. Most of these will spontaneously resolve but should still be watched by the parents and their doctors.

When it occurs between ages four and ten this condition is referred to as Juvenile Scoliosis. It is found in boys and girls almost equally in this age group. They are usually first discovered after age six and this is why school nurses often screen children in this age group. Adolescent Scoliosis occurs from ten years of age until the spine stops growing. The majority of these cases affect girls.

It is very important to check children for proper spinal function. The earlier scoliosis occurs in a child the less favorable the prognosis. However, with early detection there are some things that can help treat the condition.

Most treatments in the past have been primarily aimed at bracing and supporting the spine. Today, there are a number of physical medicine and chiropractic approaches to this condition. While they may not be able to fully correct the curve, it is believed that the progression of the condition can be slowed or stopped in many of these cases.

Treatment of scoliosis needs to take into account the whole child. Exercises help balance the musculature of the trunk and back. Stretching and flexibility exercises also increase the range of motion of affected spinal areas. Corrective orthotics which can be worn in the shoes improve balance and help with pelvic and lower back alignment. And manipulation can improve the segmental motions of the spinal segments involved. Even with all these approaches, some children will eventually need bracing, and some may need surgery.

It is important to correct this condition as much as possible while the child is still growing. Once they reach skeletal maturity (approximately 16 years in girls and 18 in boys) there is little to be done correctively. After that point, therapies are primarily palliative in nature.

Parents should perform their own evaluation of their children as they are growing. To do this just sit in a chair and have your child bend forward at the waist with their shirt off. You should see both sides of the spine evenly with neither side higher than the other. Another less accurate test is to look at them from behind and see if one shoulder is higher than the other or if one hip is higher than the other. If any of these conditions are evident, you should have the child evaluated by your chiropractor or pediatrician.

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