

## Scoliosis and Subluxation

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Is there a correlation between scoliosis and subluxation?

Every year since he was 6 years old John would go to visit family in Indiana on his summer vacation. He would work on his uncle's farm for two months, and then return home. The year when he was 8 years old, John and his cousins were playing in the barn and he fell off a stack of hay bales. He landed on his right side on the corner of a bale hard enough to knock the wind out of him. Because the children had been told not to play in the barn, his cousins encouraged John to get up and "shake it off". After a couple of minutes, John was back on his feet and playing as if nothing ever happened.

I first met John when he was 11 years old. He had developed a classic Distortion #3 scoliosis. There was a primary left thoracic curvature of 20 degrees, a secondary lumbar curvature of 13 degrees, and a tertiary cervical curvature of 12 degrees. John started under care and for the next 9 months he received specific chiropractic care to correct his vertebral subluxation complex and the scoliosis. The result was a reduction of the 3 curves from 14/20/12 degrees down to 3/4/4 degrees, and the reduction of his vertebral subluxation complex.

Many people believe that a scoliosis is something that develops at random for no explainable reason. Some children get it and some children don't. Well, nothing could be further from the truth. According to research by Dr. Robert Mawhinnie and others, 85% of all scoliosis develop as the result of childhood lateral spinal trauma. Many of these childhood spinal traumas go unnoticed, ignored, or discounted as, "it's nothing, just shake it off." Research has shown the dangers of believing, "it's nothing," because these spinal traumas almost always cause subluxation. Left untreated, the subluxated spine heals incorrectly and then may grow improperly, resulting in the development of scoliosis. So scoliosis is not something

that just happens at random. Most scoliosis develops as the result of childhood lateral spinal trauma, spinal injury, and uncorrected subluxation.

#### SANDY:

Sandy, a cute little three-year-old was riding her bike, or I should say learning to ride her bike, on the sidewalk. She hit a patch of sand as she was trying to turn. She skidded to the right, was ejected from the bike, over the handlebars, and landed on the curb, on her right side, with her right arm under her. Sandy did break her right arm and it was in a cast for about 7 weeks. The broken bone healed normally and two months after the fall, Sandy was back up on her bike and having a wonderful time with no apparent spinal problems.

I met Sandy when she was 9 years old. She was referred to my office as the result of a school scoliosis-screening program. When she first came in we did our normal scoliosis examination and x-ray series. This revealed a Distortion #2 type scoliosis, which included a left lateral thoracic curve of 23 degrees and a right lateral compensatory curve in the cervical spine of 9 degrees. After a six-month care program, Sandy's thoracic curvature was down to 4 degrees.

Another major contributing factor in the development or worsening of scoliosis is timing. Changes in hormonal levels can effect scoliosis. The time of life when hormonal changes are significant enough to contribute to scoliotic changes is puberty, and also for females during pregnancy. During puberty hormones cause the tendons, ligaments, and muscles to become less rigid and more flexible to allow for growth. Also during pregnancy the hormones have the same effect to allow the body to stretch to accommodate the developing baby.

#### DANIELLE:

Danielle was three years old when the car she was riding in with her mom was hit broadside. The ambulance came and took Danielle to the hospital. After the usual cursory examination and many x-rays, the nurse at the emergency room told Danielle's mom that she was fine. Mom never heard any complaints from Danielle so she never gave it another thought.

I first met Danielle when she was 10 years old when her mom brought her into my office for a spine check examination and scoliosis screening. The results of the exam revealed Vertebral Subluxation Complexes at the levels of: C1, C5, T11, T12, L4, and L5. I also found a classic Distortion #3 type scoliosis. There was a left lateral rotatory curve of 6 degrees from T10 through L3, a right lateral curve of 15 degrees from T4 through T10, and a slight

compensatory curve in the cervical spine. I made recommendations for mom to bring Danielle in on a 2x per week. Mom followed through by bringing in Danielle in for care 1x every 6 weeks.

Danielle entered into puberty just after her 11th birthday. Shortly after that I noticed that her scoliosis seemed to be worse so I took some new x-rays. The new x-rays revealed a slight cervical curve, T4 through T10 was now 26 degrees, and T10 through L3 was now 20 degrees. At that point I started some much more specific scoliosis care. After 6 months the curves were; slight cervical, T4 - T10 18 degrees, and T10 - L3 20 degrees. Mom was very pleased that the curves were reduced and she took this as a cue to reduce Danielle's treatment frequency to 1x every 8 weeks. & The hormone levels in young Danielle's body finally leveled off at the age of 15. That is when her scoliosis finally stopped getting worse. Her new scoliosis complex was now; slight cervical curve, T4-T10 19 degrees, and T10-L3 43 degrees. We then started Danielle on 1x per week care program and I am excited to say that the curves are now; cervical slight, T4 through T10 12 degrees, and T10 through L3 29 degrees, and going down.

John:

Remember John? The summer that John was 13, he was off again to Indiana and his uncle's farm. This year John was older and he was ready for more responsibility and more physical work. John's job that year was like this: As he was sitting down he would reach to his right and pick up a bale of hay off the ground, bring it across in front of his body and place it on a conveyer belt on his left side. All summer long, a constant twist / bend / lift / twist / bend, all day long. When John came back home at the end of the summer he came into the office for an adjustment. We took some new x-rays and discovered that the constant bending and twisting had taken its toll on John's spine. The thoracic curve that was 6 degrees when he left for vacation.

3 months before had now developed into a 56-degree curvature. The constant repetitive insult to John's spine in the form of the bending and twisting, combined with the hormonal effects of puberty had really taken their toll.

John, Sandy, and Danielle are examples of children with very obvious trauma induced scoliosis. Danielle and John are also examples of how the increased hormone levels of puberty can dramatically effect an unstable scoliosis. In addition, John is a classic example of how a constant micro-trauma can also cause a scoliosis to develop or worsen.

Another example of a constant micro-trauma, which is going largely unnoticed, is on display on a daily basis all around us. We have all seen it - at home, in the schools, at work, even in the mall: a backpack/book bag, usually weighing more than the child should be carrying, with two perfectly good straps, one for each shoulder, slung over one shoulder with the other strap hanging down unused. Or, the two straps are used, but extended to their full length causing the too heavy bag to hang down below the child's hips. This results in the bag swinging from side to side as it bounces off their sacrum. Either way, these are two examples of how the book bag was NOT designed to be used.

For some children, the habit of "book bag abuse" does not seem to make a difference. However for children who have had previous spinal injuries that were unnoticed, undetected, untreated, or just ignored and as a result, healed incorrectly, it does make a difference, a significant difference.

When previous incorrectly healed trauma and the resultant Vertebral Subluxation Complex are combined with the constant micro-trauma of "book bag abuse", these children become much more vulnerable to the stresses and forces that lead to the development or the worsening of a scoliosis. And as if that were not enough to deal with, we can also add in the fact that we have a child that is about to go through, is going through, or has just gone through puberty with all the dramatic hormonal changes involved. The result of this, in many cases, is a scoliosis that gets dramatically worse.

Whether you are dealing with the chronic micro-trauma of carrying a book bag incorrectly, the effects of years of uncorrected Vertebral Subluxation Complex and Subluxation Degeneration, or a combination of both. During both initial examination and x-rays, and any follow-up, you must always consider the correlation between subluxation, scoliosis, and the trauma or activity that could have contributed to both of them.

#### References:

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