

## **Three Causes of Vertebral Subluxation in the Pediatric Population**

### **Part 1: Physical Stressors (Part 2 below)**

By Claudia Anrig, DC

As doctors of chiropractic, we truly are the original health care professionals who have embraced the truth that wellness is achieved through a healthier lifestyle. The family wellness chiropractor also recognizes and acknowledges three stressors that may work against a child's personal well-being by causing subluxation and interfering with nervous system function. It is only through lifestyle education that a patient can begin to recognize these three common stressors and minimize or eliminate them from their life. Who better to choose as their advocate for change than a family wellness chiropractor? As the leader in the area of wellness, you can be a lifestyle coach with every visit, encouraging and educating younger patients and their parents in their journey toward wellness.

#### **What Parents Need to Know**

There are many physical stressors in the life of a child. These stressors may be seen first in the last trimester of the pregnancy when the fetus is in a malposition causing in-utero constraint. The infant in a breech position is 50 percent more likely to have a hip dislocation, mandibular asymmetry and postural distortion. The transverse lie increases the child's chance of postural scoliosis, and the brow or facial presentation can lead to upper cervical, upper thoracic and lumbopelvic strain (microtrauma), causing potential areas of subluxation. All of these malpositions rarely resolve prior to birth and lead to C-sections.

In the United States, birth trauma is estimated to be one of the top 10 causes of infant mortality. Many in the developing field of sensory integration disorder management are stating that birth trauma is a major cause of the disorder. In 2006, 31.1 percent of U.S. births were by C-section, a dramatic 50 percent increase from the previous 10 years. With the increased rate of C-sections, the rise in pregnancy-associated deaths should be

noted.

The first year of life is not without trauma, either. Approximately 50 percent of all children have fallen head-first from a high place. Furthermore, baby walkers contribute to 3,000 annual injuries in children under 15 months. There are other staggering statistics:

- More than 1 million children under the age of 5 visit hospital emergency rooms each year.
- Almost 200,000 children are injured in car accidents and more than 1,000 children die annually as a result of those accidents.
- The beloved trampoline causes approximately 88,000 visits to the emergency room each year, and playground equipment accounts for another 200,000 visits.
- In the United States, 3.5 million children under the age of 14 receive medical treatment for sports injuries each year.

Looking at repetitive stress (microtrauma) syndrome, it is very easy to see that it may start with parents incorrectly holding their newborn or changing their diaper without providing proper spinal stability. Infant bouncers or activity centers require youngsters to stand on joints that are unable to normally support their own weight. Mastering walking is not easy. The art of balancing on two feet will mean hundreds of falls, with the child often landing on their bottom. This can cause repetitive microtrauma to the sacrum and other surrounding joints.

Children learning to walk also are often seen with bruises on their brow from running into something low. This hyperextension trauma may lead to cervical and upper thoracic spine subluxation. As the child gets older, repetitive stress continues with the use of backpacks at early ages and the asymmetry it brings to the child during their developmental years.

### **The Wellness Lifestyle**

As a family wellness chiropractor, you cannot single-handedly eliminate all causes of micro- or macrotrauma, but you can see yourself as the wellness advocate on behalf of the child. Introduce healthier or safer lifestyle habits by conducting in-office workshops and providing handouts, articles and in-room advice. Parents who are told that their child's spine and nervous system are developing, and that there is only a window of time for true prevention care, normally choose wellness care for their child.

## **Checkups vs. Adjustments**

My recommendation for colleagues who have developed or would like to develop a family practice is to create a schedule for regular checkups of all child patients. Depending on your technique and the needs of the child, this schedule will vary, but a good rule of thumb is a twice-a-month evaluation of the child's spine to see if an adjustment is warranted. Not all visits may turn into an adjustment; however, parents value your opinion. If they are aware that between checkups, their children will experience normal physical stressors that may lead to vertebral subluxation, we can expand our professional role as prevention advocates.

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See part 2 - below

## **Three Causes of Vertebral Subluxation in the Pediatric Population**

### **Pt. 2: Chemical & Mental/Emotional Stressors**

By Claudia Anrig, DC

In part 1 of this two-part series ([May 6 issue](#)), we explored the numerous physical stressors that may be contributing to vertebral subluxation in children. Now let's discuss the chemical and mental/emotional stressors that children must deal with and that can contribute to subluxation.

#### **Chemical Stressors**

*Foods.* Although the [World Health Organization](#) encourages breast-feeding until age 2, if not longer, North American compliance with this recommendation is very low. At birth, 70 percent of infants are breast-fed. By six months of age, that number falls to 36 percent and by 12 months, it is 18 percent. Formula-fed babies have an increased likelihood of infections and are candidates to develop allergies later in life.)

Pediatricians often place infants on cereals by the third month of life "so they can sleep through the night." Considering that gluten is one of the leading food allergens for children, this begins a vicious cycle of placing stress on the body. The five major food allergens (chemical stressors) with children are; gluten, dairy, soy (infant formulas), corn (found in a majority of processed foods) and peanuts.

Currently, up to half of new diabetes diagnoses in children are type 2 diabetes. Studies have linked this insulin resistance with obesity. Considering that on a typical day, 30 percent of children eat fast food, it's no wonder that \$130 billion is spent on fast food each year.

*Vaccines.* Other chemical stressors to children are ingredients that can be found in vaccines. These include mercury, aluminum, hydrochloric acid, formaldehyde, ethylene glycol, latex and MSG. According to the National Vaccine Information Center, children receive 48 doses of 14 vaccines before age 6, and the number

of doses has doubled in the past 25 years. The lack of responsibility to test which children may be sensitive to potential neurotoxins is difficult to understand.

*Fillings.* Although many in the dental field are attempting to send warnings that fillings may not be safe, dental fillings, or amalgam, still contain the following ingredients: 50 percent mercury, 30 percent silver and differing amounts of tin, zinc and copper.

*Pesticides.* Pesticides are a constant in our lives, with children ingesting up to 15 pesticides each day. Various types of produce, including sweet bell peppers, lettuce, hot peppers, apples, peaches, cucumbers, strawberries, imported grapes, green beans and pears, may contain anywhere from 30 to 60 trace pesticides. With genetically engineered food products such as corn, soy, potato, tomato, canola and cottonseed oil, papaya, radicchio, squash and salmon on the rise, a child's diet may be inundated with chemicals, since manufacturers are not required to label the products accordingly. Since there have not been studies on long-term effects in the pediatric population, shouldn't one err on the safe side?

*Drugs.* With anti-smoking and drug messages bombarding our young people, the lack of results is staggering. Twenty-two percent of high school students smoke. According to a recent poll of high school seniors, 66.4 percent drink, 31.7 percent smoke marijuana, 7.5 percent take stimulants and 5.2 percent use cocaine. Regarding illicit drug use among children ages 12 and older, 45 percent have at least tried it once in their lifetime, 15 percent in the past year and 8 percent in the past 30 days.

### **Mental/Emotional Stressors**

The common mental stressors that affect children of all ages are often overlooked. One in eight children experiences anxiety, and it's often linked to fractured families, bullying and failure to succeed. It is estimated that as many as one-third of students have experienced bullying (as the bully or the one bullied), and that 160,000 children will miss at least one school day because of bullying. Most children are afraid to report it to an adult.

Being a teenager is not easy when it comes to self-image. Fifty percent of 13- to 15-year-old girls believe they are overweight, and 80 percent of 13-year-old girls have already tried dieting. Some will develop anorexia nervosa during their teen years.

Twenty percent of teens will experience depression, but less than 33 percent will get help, and 30 percent will develop a substance abuse problem if not properly treated. It should also be noted that suicide is the third leading cause of death among teenagers.

### **What You Can Do**

As a family wellness chiropractor, teaching parents how to limit chemical and mental stressors in the lives of their children is of utmost importance. This might begin with teaching workshops, creating a lending library in your office or finding educational tools that support this goal.

Although prevention is the key, most children will be exposed to physical, chemical and mental stressors in their lives. This is why reviewing children's lifestyle habits is important. The family wellness chiropractor can take an active role to reduce those triggers, along with educating parents about the correlation between stressors, subluxation and lifestyle consequences. This responsibility of overseeing lifestyle habits - and the reality that children cannot live their lives "in a bubble" - necessitates that you implement a regular check-up routine for children.

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