

## **Chiropractic Care for the Child Athlete**

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There are some negative opinions in chiropractic regarding contact sports like boxing and football. Some of our colleagues feel these sports should be avoided. Whatever your particular opinion, these sports (pee-wee football, boxing and the like) have been around for decades and are here to stay.

The sports chiropractor should not attempt to replace the medical staff already in place at any level of competition. However, it has been my experience that as chiropractors if we care for the athletes chiropractically and not attempt to interfere with or replace the trainers, medics or EMTS, our acceptance both on and off the field is much greater. Having been a team chiropractor for numerous athletic teams from professional baseball, wrestling, and boxing to the little league football and soccer levels, I'd like to share some information, as well as my experience, as such.

Almost all organized levels of childrens sports have age and weight limitations. In some sports, such as martial arts, events not only have an age and weight requirement but they also have the children categorized (or matched) according to their skill level. Team chiropractors' should be aware of the proper use of safety equipment and proper fit of protective gear like football helmets, pads and sparring gear used in contact sports.

Injuries to children's spines are not unique to contact sports like football or martial arts. They are also seen in non-contact sports like gymnastics and competitive cheerleading. Injuries to the pediatric spine vary according to the specific mechanism of injury. Therefore, the pediatric sports chiropractors knowledge of particular sports is helpful in assessing the care he or she will render.

Specific to the child athletes' spine one should have knowledge of the ossification centers. The primary centers at the vertebrae, or centrum, and the neural arch unite forming the vertebral arch. Fusion of the body with the posterior elements occurs as early as 3-6 years and as late as 16 years. The secondary centers of ossification, consisting of the two vertebral body end plates, the two transverse processes and the spinous process fuse between 14 and 25 years of age. Also the joints of Luschka are not fully formed until age 7. Additionally, some bones, such as the sacrum, do not fuse until well into the second decade of life, and thus may function as individual vertebrae depending on age.

Subluxations, fractures or failure of fusion of secondary ossification centers can result from head impacts as experienced in football or martial arts, or from falling on the child's feet or buttocks as in gymnastics or cheerleading. Development of the normal spinal curves will assist in dissipating compressive forces or loads. However, athletics may induce concussive forces the body cannot adapt to thus resulting in vertebral subluxation complexes.

The common area of injury from a head impact is the mid to lower cervical (C4-C6). The common area of injury from a forces from below, as in falling on the feet or buttocks, is T-9 - L2. Flexion injuries of the spine commonly affect the C4-C6, T5-6 and L1-L2. And one should always check the upper cervical spine.

T. K. Videman, M.D.<sup>1</sup> from the University of Helsinki in 1987 found that the slightest hypomobility in diarthrodial joints (facet joints) would cause joint degeneration in 5-7 days, which becomes irreversible in 2-3 weeks. Following 5 weeks of joint fixation, 18 months of care was required for optimal healing which was almost always incomplete. The sooner we as chiropractors can care for the child athlete, and correct his or her subluxation, the less likely they are to have life long patterns of ill health and who better than the chiropractor to care for these little athletes.

Caring for the children during an event should be discussed next. The team chiropractor should be able to assess the athlete's specific needs. Never disregard the need for a comprehensive chiropractic evaluation. And please, no public display of adjusting. (P.D.A.)

Team chiropractors who will spend time working with children athlete should educate themselves regarding specialized training in the field of chiropractic pediatric adjusting techniques. That is not to say adjusting the child with bilateral supine, rotary breaks and lumbar roll both sides as is sometimes done on adults. Rather learn how to adjust children correctly through programs like ICPA's certification program, which Dr. Webster started and we are continuing to promote.

When evaluating a child either on or off the field before applying a chiropractic adjustment, one should be able to objectively evaluate as many components of the vertebral subluxation complex as possible. The sports chiropractor needs to be aware of the functional uniqueness of the child's spine when doing so. For example, the normal range of motion in a child's spine is greater than that of an adult. This is important to know when assessing a child's spine. Also, as a team chiropractor for any sport, and any level, there will come a point in time when you are the only attending health care provider. It would be a good idea to know when you should transport via EMT in emergency situations. My experience is that no one will belittle you if you play it safe. One of our chiropractic colleagues from an opposing team thought he could tape a knee and get the star player back into the game only to learn later that the child had suffered a fractured fibula.

As chiropractors, we must focus on the vertebral subluxations and the dangers of such especially those arising out of sports injuries. We should also educate the players, parents and coaches. Each year I hold a coach's clinic for all the area "Pop Warner" football coaches. This clinic is well attended because we bring in a certified athletic trainer to teach basic training and taping techniques. I also do a chiropractic health orientation and educate coaches and trainers on the cause and the harmful effects of subluxations.

In my presentation, I use the Emmett Smith quote "playing in a football game is like being in 30-40 care accidents" and then I multiply that by the 10 games the kids have each season. I also use this opportunity to show them the benefit of chiropractic care for the athletes, both pre and post game. This clinic is held in my office so the coaches, parents and players have the opportunity to see it first hand.

Whether the children are participating in contact or non-contact sports, a proper chiropractic evaluation by a qualified pediatric chiropractor can keep them in the game and help to minimize if not prevent injuries leading to vertebral subluxations.

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References:

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