

## **Preparation & Precaution: Caring for Your Young Athlete**

by Kristen Renee Daley

As parents prepare to sit on the sidelines to cheer on the Babe Ruths, John Elways and Tara Lipinskis of the future, it is important to focus on their physical well-being as they develop their skills in their particular sport.

According to a 2003 article from "Chiropractic Economics," more than 30 million children participate in organized sports in the U.S. Even more kids participate in recreational activities such as bicycling, in-line skating, skateboarding and riding scooters. Approximately 775,000 children are treated in hospital emergency rooms for sports related injuries, with about 25 percent of those injuries considered serious.

Children are more susceptible to injuries because they have slower reaction times than adults. They are less coordinated, and they are still growing and developing. While there is a certain amount of risk involved in participatory sports, parents, coaches, and program supervisors share the ultimate responsibility for providing maximum safety in a healthy playing climate.

"The majority of, if not all, sports are good," said Dr. Carl Heigi, president of the American Chiropractic Association's (ACA) Council on Sports Injuries and Physical Fitness. He noted, however, that "without proper preparation, playing any sport can turn into a bad experience. There are structural and physical developmental issues that need to be taken into consideration before children undertake certain sports."

### **Tips to Keep Your Child Injury-free**

Before your child begins participation in a sport, try to determine his or her physical maturation level and match his or her size with an appropriate sport. Most competitive children's sports are organized by age rather than by physical skill or maturation. Slower maturing children are often at greater risk of injury because they are competing with peers who may be larger and more physically developed.

Once it is time to "play ball" or jump and tumble, the ACA advises parents to help their children prepare their bodies and learn to protect themselves from sports-related injuries before they happen. "Proper warm up, stretching and weight-lifting exercises are essential for kids involved in sports," said ACA member Dr. Steve Horwitz, a former member of the U.S. Summer Olympics medical team. "Parents need to work with their kids and make sure they receive the proper sports training."

Prior to game time, Horwitz suggests that young athletes begin with a slow jog that will serve to warm up the legs and arms, as well as to stretch all the major muscle groups. "Kids involved in football, baseball, gymnastics and swimming should develop a routine that includes strengthening exercises for the abdomen, the low-back muscles, arms and shoulders," he added.

In the heat of competition, it is essential for children to wear the proper equipment, including helmets and pads. Certain contact sports, such as football and hockey, can be dangerous if the equipment is not properly fitted. Be certain that your child's equipment fits him or her properly, and talk to the coach or trainer if the equipment is damaged.

Proper nutrition and hydration are vital to a young athlete's health. Child athletes should drink between five and eight 8-ounce glasses of water, as hydration is a key element to optimal fitness. The calcium derived from milk is also essential for healthy bones, and it reduces the risk of joint- and muscle-related injuries. The ACA recommends 1 percent or skim milk for children over two years old. Parents should avoid serving their children sugar-loaded, caffeinated and carbonated drinks. Sports drinks, however, are a good source of replenishment for those children engaging in long-duration sports, such as track and field. "Eating a healthy meal before and after practice or a game allows for proper replenishment and refuels the body," Horwitz explained. Avoid high-fat foods when preparing lunch for your child, and focus more on fruits and vegetables.

Maintaining a healthy weight is important for child athletes. Certain sports, including gymnastics, wrestling and figure skating, require participants to follow strict dietary rules. Be sure that your child understands that proper nutrition and caloric intake is needed for optimal performance and endurance, and that he or she does not feel pressured into being too thin.

Daily vitamin intake will also contribute to your child's physical well-being and optimal performance. A multi-vitamin and Vitamin C are good choices for the young athlete. Vitamin B and amino acids may help reduce the pain from contact sports, thiamine can help promote healing, and Vitamin A can help strengthen scar tissue. Avoid the use of performance-enhanced supplements for athletes under the age of 18. In addition to vitamin intake, it is vital for children to get plenty of rest - eight hours of sleep is ideal. Lack of sleep and rest can catch up with the athlete and decrease performance. Sluggishness, irritability and loss of interest could mean that your child is fatigued.

## **Injuries to Be Aware Of**

Common sports injuries to children include sprains, strains, contusions, abrasions, and lacerations. The more rapidly children grow, the more susceptible they are to injury at the bone growth sites. Growth occurs at the upper and lower end of the long bones of the skeleton. One-half to one inch below the end of the bones is the growth center, where cartilage-like cells will harden and eventually make up bone mass. This vulnerable area is the weakest part of the skeleton and the most prone to injury, especially in the young adolescent. If growth site injuries are not diagnosed accurately and treated properly, they can lead to chronic pain, traumatic arthritis, and possible deformity and stunted bony growth. Trauma to the cervical spine and head can cause such problems as headaches, auditory problems, and visual disturbances, among others.

Certain sports, such as soccer and gymnastics, can yield specific injuries. Soccer players who are hit by the ball, fall, and come into contact with other players often suffer bruises and injuries to the knee, ankle and shin. The most common injuries to gymnasts are spinal injuries. The greatest number of gymnastic injuries occur during floor exercises and tumbling, with other injuries resulting from upsets on the balance beam and uneven parallel bars. Children who complain of elbow pain could be suffering from overuse syndrome. Athletes participating in sports like baseball, swimming and skating could be at risk for developing an overuse syndrome because of repetitive stress on particular joints.

## **Benefits of Chiropractic Care**

It is critical that parents use good judgement in treating complaints about pain. An injury that may act like a sprain may actually be a growth plate injury that demands professional diagnosis to determine its extent and how to proceed with treatment. Parents should check to see if their child's sports team has an affiliated chiropractor skilled in the handling of sports injuries. According to the ACA, doctors of chiropractic are trained and licensed to treat the entire

neuromusculoskeletal system and can provide advice on sports training, nutrition and injury prevention to young athletes.

A child should undergo a Pre-Participation Evaluation (PPE) prior to any sports involvement. The PPE consists of a routine medical history and physical examination with emphasis on neuromusculoskeletal evaluation, all of which are helpful in determining a child's readiness to participate in the sport in question. The examination may uncover special medical problems such as juvenile diabetes, epilepsy, asthma, cardiac conditions, or previous sports injuries that may prevent a child from participating in sports. The evaluation should indicate which activities are more suited to a child with special medical considerations,

If a child begins receiving chiropractic care for an injury, it is not uncommon for the child's disposition to improve. Parents may see that their child deals with stress more positively, sleep better, and are generally able to function without restriction - all indicators of improved health.