

Courtesy of US Youth Soccer

I hope you found the snippets of information from the article - *Overuse Injuries, Overtraining, and Burnout in Child and Adolescent Athletes* from the Official Journal of the American Academy of Pediatrics to be interesting. So while the thoughts evoked from last week's blog are still on your mind here is a final entry from you from that professional article.

"Overuse injuries, overtraining, and burnout among child and adolescent athletes are a growing problem in the United States. Although inactivity and obesity are on the rise, the number of children and adolescents who participate in organized or recreational athletics has grown considerably over the past 2 decades. It is estimated that 30 to 45 million youth 6 to 18 years of age participate in some form of athletics. Sports participation is more accessible to all youth, from recreational play and school activities, to highly organized and competitive traveling teams, to pre-Olympic training opportunities.

"Weekend-long sports tournaments for soccer, baseball, or tennis are common across the country. Often, these athletes are actively participating at least 6 hours each day in their sport and are exposed to the associated weather elements for an additional 2 to 3 hours. The risks associated with these events include heat-related illness, nutritional deficiencies, overuse injuries (e.g., multiple games over a 48-hour span), and burnout from having a lack of "free time." Research examining the possibility of fatigue contributing to an increased injury risk in the tournament situation does not exist, but the general overtraining-prevention guidelines outlined earlier [last week's blog] should also apply.

"Single-sport, year-round training and competition is becoming more common for children and adolescents. A focus on participating in 1 sport, or single-sport specialization, to improve, advance, and compete at the highest level may drive youth to participate for long hours daily on 1 or more teams at a time. This is common in soccer, baseball, and gymnastics. The motivation behind this over involvement may be induced by the child or parent. As more young athletes are becoming professionals at a younger age, there is more pressure to grab a piece of the "professional pie," to obtain a college scholarship, or to make the Olympic team. Most young athletes and their parents fail to realize that, depending on the sport, only 0.2% to 0.5% of high school athletes ever make it to the professional level. Yet, youth continue to specialize in 1 sport while participating on multiple teams and risk overuse and/or burnout if there is no break from athletics during the year. Young athletes who participate in a variety of sports have fewer injuries and play sports longer than those who specialize before puberty.

"Well-rounded, multisport athletes have the highest potential to achieve the goal of lifelong fitness and enjoyment of physical activity while avoiding some of the pitfalls of overuse, overtraining, and burnout provided that they participate in moderation and are in tune with their bodies for signs of overuse or fatigue. Many youth will play multiple sports throughout the year either simultaneously or during different seasons. Multisport athletes are at risk of overuse injuries if they do not get sufficient rest between daily activities or if they do not get a break between seasons.

"The ultimate goal of youth participation in sports should be to promote lifelong physical activity, recreation, and skills of healthy competition that can be used in all facets of future endeavors. Education of parents, athletes, and coaches must be part of the plan to promote fun, skill development, and success for each individual athlete. Skilled young athletes must be mentored carefully to prevent over participation, which may affect them physically as well as psychologically. Unfortunately, too often the goal is skewed toward adult (parent/coach) goals either implicitly or explicitly. The parent often hopes the child will get a scholarship, become a professional athlete, or fulfill the parents' unfulfilled childhood dreams. It is best to identify and focus on the child's motivation and goals to provide guidance."

1. Encourage athletes to strive to have at least 1 to 2 days off per week from competitive athletics, sport-specific training, and competitive practice (scrimmage) to allow them to recover both physically and psychologically.
2. Advise athletes that the weekly training time, number of repetitions, or total distance should not increase by more than 10% each week (e.g., increase total running mileage by 2 miles if currently running a total of 20 miles per week).
3. Encourage the athlete to take at least 2 to 3 months away from a specific sport during the year.
4. Emphasize that the focus of sports participation should be on fun, skill acquisition, safety, and sportsmanship.
5. Encourage the athlete to participate on only 1 team during a season. If the athlete is also a member of a traveling or select team, then that participation time should be incorporated into the aforementioned guidelines.
6. If the athlete complains of nonspecific muscle or joint problems, fatigue, or poor academic performance, be alert for possible burnout. Questions pertaining to sport motivation may be appropriate.
7. Advocate for the development of a medical advisory board for weekend athletic tournaments to educate athletes about heat or cold illness, over participation, associated overuse injuries, and/or burnout.
8. Encourage the development of educational opportunities for athletes, parents, and coaches to provide information about appropriate nutrition and fluids, sport safety, and the avoidance of overtraining to achieve optimal performance and good health.

9. Convey a special caution to parents with younger athletes who participate in multigame tournaments in short periods of time.