

Guidelines Issued for Overuse Injuries in Child and Adolescent Athletes CME/CE

News Author: Laurie Barclay, MD

CME Author: Penny Murata, MD

June 7, 2007 — A clinical report published in the June issue of *Pediatrics* suggests guidelines to assist clinicians in identifying overuse injuries and burnout in child and adolescent athletes and in counseling the children and their families.

"Overuse injuries, overtraining, and burnout among child and adolescent athletes are a growing problem in the United States," write Joel S. Brenner, MD, MPH, and colleagues from the Council on Sports Medicine and Fitness. "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.... 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."

Approximately 30 to 45 million youth aged 6 to 18 years take part in some form of athletics, including football, baseball, soccer, lacrosse, field hockey, rugby, cheerleading, and dance. Each of these sports activities gives rise to a specific list of sports medicine concerns. Because increasing numbers of children and adolescents are participating in sports year-round and sometimes are on several teams at once, the incidence of overuse injuries is increasing.

In the child and adolescent athlete, overuse is one of the most common factors causing injuries. Overtraining can cause burnout, which may deter a child from participating in sports as a lifelong healthy activity. Parental pressure to compete and succeed may contribute to overtraining.

The current report is intended to support the American Academy of Pediatrics policy statement on intensive training and sport specialization; to assist clinicians in identifying and counseling at-risk children and adolescents and their families; to define the medical, psychologic, and developmental issues regarding intensive, focused athletic participation; and to highlight specific overtraining issues such as participation in endurance events, weekend athletic tournaments, and year-round training on multiple teams and the multiple sport athlete.

Because of the relative lack of scientific data concerning these issues, some of the recommendations are based on committee opinion and/or expertise.

Specific recommendations in these guidelines are as follows:

- Encourage athletes to take at least 1 to 2 days off per week from competitive athletics, sport-specific training, and competitive practice (scrimmage) to allow physical and psychologic recovery.
- Advise athletes that weekly training time, number of repetitions, or total distance should not increase by more than 10% each week.
- Encourage the athlete to take at least 2 to 3 months away from a specific sport during the year.

- Emphasize having fun, skill acquisition, safety, and sportsmanship as the focus of sports participation.
- Advise the athlete to be a member of only 1 team per season. If the athlete is also on a traveling or select team, then this participation time should be considered in the guidelines mentioned above.
- Be vigilant for possible burnout if the athlete complains of nonspecific muscle or joint problems, fatigue, or poor academic performance. Questions regarding sports motivation may be indicated.
- Advocate for the development of a medical advisory board for weekend athletic tournaments to educate athletes about illness related to heat or cold exposure, overparticipation, associated overuse injuries, and/or burnout.
- Promote the development of educational opportunities for athletes, parents, and coaches to offer information about appropriate nutrition and fluids, sports safety, and avoidance of overtraining to achieve optimal performance and good health.
- Urge special caution for parents of younger athletes who participate in multiple game tournaments during short periods.

Specific recommendations to prevent overtraining and burnout are as follows:

- To keep practice fun, keep workouts interesting, with age-appropriate games and training.
- To allow the body to rest or to encourage participation in other activities, have the athlete take time off from organized or structured sports participation 1 to 2 days per week.
- Allow longer scheduled breaks from training and competition every 2 to 3 months, while focusing on other activities and cross-training to prevent loss of skills or conditioning level.
- Focus on wellness and on teaching athletes to be in tune with their bodies for cues to slow down or to change their training methods.

"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," the authors conclude. "Ultimately, it is important for the practitioner to discuss the underlying motivation for sport participation with the athlete, the parent, and, possibly, the coach. Unfortunately, too often the goal is skewed toward adult (parent/coach) goals either implicitly or explicitly, [so] it is best to identify and focus on the child's motivation and goals to provide guidance."

As with other guidelines from the American Academy of Pediatrics, the recommendations in this report do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations based on individual circumstances may be appropriate.

Pediatrics. 2007;119:1242-1245.