

# AMERICAN ACADEMY OF PEDIATRICS

Committee on Sports Medicine and Fitness and Committee on School Health

## Organized Sports for Children and Preadolescents

**ABSTRACT.** Participation in organized sports provides an opportunity for young people to increase their physical activity and develop physical and social skills. However, when the demands and expectations of organized sports exceed the maturation and readiness of the participant, the positive aspects of participation can be negated. The nature of parental or adult involvement can also influence the degree to which participation in organized sports is a positive experience for preadolescents. This updates a previous policy statement on athletics for preadolescents and incorporates guidelines for sports participation for preschool children. Recommendations are offered on how pediatricians can help determine a child's readiness to participate, how risks can be minimized, and how child-oriented goals can be maximized.

### INTRODUCTION

Participation in organized sports can have physical and social benefits for children. However, the younger the participant, the greater the concern about safety and benefits. The involvement of preadolescents in organized sports is a relatively recent phenomenon. In the early 20th century, physical activity was a more regular part of life for the average child. Sports and games provided an additional outlet for physical activity and were characterized by play that was generally spontaneous, unstructured, and without adult involvement. Participation in such sports and games allowed for development of motor skills, social interaction, creativity, and enjoyment for participants.

During the latter part of the 20th century, "free play" or unstructured games primarily gave way to organized sports. The starting age for organized sports programs has also evolved to the point that infant and preschool training programs are now available for many sports. Organization of sports has potential benefits of coaching, supervision, safety rules, and proper equipment but can also create demands and expectations that exceed the readiness and capabilities of young participants. Organization can also shift the focus to goals that are not necessarily child oriented. Clearly, the nature of the organization can determine if it has a positive or negative influence.

This statement is an update to a previous policy statement on athletics for preadolescents<sup>1</sup> and incorporates guidelines for sports participation for preschool children.<sup>2</sup> Recommendations are made on

how pediatricians can help determine a child's readiness to participate in organized sports, how risks can be minimized, and how child-oriented goals can be maximized.

### ORGANIZED SPORTS PROGRAMS: LIMITATIONS AND RISKS

The effects of organized sports participation on growth and maturation have come under question, as have the effects of growth and maturation on the ability to participate in sports. Because children are beginning to train and compete at earlier ages, there is increasing concern about potential negative effects on growth and maturation. Reports of gymnasts and divers with short stature or ballet dancers with lean body types or late menarche have contributed to such concerns. Despite such reports, it is unclear if these characteristics were a result of intensive training or other factors, such as dietary practices, psychological and emotional stress, or selection bias for the sport.<sup>3</sup>

The effects of immaturity on sports participation are more obvious. When the demands of a sport exceed a child's cognitive and physical development, the child may develop feelings of failure and frustration. Even with coaches available to teach rules and skills of a sport, children may not be ready to learn or understand what is being taught. Furthermore, many coaches are not equipped to deal with the needs or abilities of children. Basic motor skills, such as throwing, catching, kicking, and hitting a ball, do not develop sooner simply as a result of introducing them to children at an earlier age.<sup>4</sup> Teaching or expecting these skills to develop before children are developmentally ready is more likely to cause frustration than long-term success in the sport.<sup>5</sup> Because most youth sports coaches are volunteers with little or no formal training in child development, they cannot be expected to correctly match demands of a sport with a child's readiness to participate. Educational programs are available for youth sports coaches, but most coaches do not participate. Nonetheless, coaches may still try to teach what often cannot be learned and blame resulting failures on shortcomings of athletes or themselves.

Parental or adult supervision of children's activity is usually considered to be desirable. However, in organized sports, inappropriate or overzealous parental or adult influences can have negative effects. Adults' involvement in children's sports activities may bring goals or outcome measures that are not oriented toward young participants. Tournaments, all-star teams, most valuable player awards, tro-

The recommendations in this statement do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

PEDIATRICS (ISSN 0031 4005). Copyright © 2001 by the American Academy of Pediatrics.

phies, and awards banquets are by-products of adult influences. Despite good intentions, increased involvement of adults does not necessarily enhance the child athlete's enjoyment. The familiar image of a parent imploring their 5-year-old to "catch the ball," "kick the ball," or "run faster" is a reminder of how adult encouragement can have discouraging effects.

#### **ORGANIZED SPORTS PROGRAMS: BENEFITS**

In contrast to unstructured or free play, participation in organized sports provides a greater opportunity to develop rules specifically designed for health and safety. Organization can allow for the establishment of developmentally sound criteria for determining readiness to play. Organization can also allow for a fair process in choosing teams,<sup>6</sup> matching competitors,<sup>7</sup> and enforcing rules. Rules specifically targeted at younger athletes can reduce injuries. Recommendations have been made to limit dangerous practices, such as headfirst sliding in baseball<sup>8</sup> and body checking in hockey.<sup>9</sup> Safety accommodations associated with organized youth sports can also include smaller playing fields, shorter contest times, pitch counts for Little League pitchers, softer baseballs, matching opponents by weight in youth football, and adjusting play for extreme climatic conditions.<sup>10</sup> The availability of qualified coaches in organized sports can be a key factor in providing safety and a positive experience.

In this regard, the effects of organization provide positive environments for young participants. Unfortunately, not all youth sports participants have access to all known safety measures. Furthermore, a great deal remains to be learned about safety in youth sports. Additional resources are needed to study injury prevention and ensure that all participants will benefit from existing safety measures. The prospects for additional development and implementation of safety measures are far greater for organized sports than for unstructured free play.

Despite many potential benefits of organization, there is no consensus as to the overall value of organized sports for preadolescents. A return to the days of free play has been suggested as one means to eliminate negative aspects of organized sports. Unfortunately, the days when children had the time, opportunity, or inclination to play in neighborhoods or local parks have passed. Today, there are more demands on a young person's time, more options for free time, diminished requirements for regular physical activity, and fewer opportunities for free play. School-based physical education programs have also been reduced throughout the years and can no longer be relied on to provide adequate levels of healthy activity.<sup>11</sup>

Regular physical activity can help reduce the risk of many adult health problems, including diabetes, obesity, and heart disease.<sup>12</sup> However, with less time dedicated to free play and school physical education programs, the result may be lower activity levels and lower levels of fitness for children. There is a greater need to protect opportunities for structured and unstructured physical activity for children. Organized sports may not provide all physical activity needs

but can be a viable means to increase activity levels in children and, hopefully, lead to the adoption of active lifestyles as adults.

#### **Organized Sports Programs: Optimizing the Benefit-to-Risk Ratio**

If organized sports are going to be safe, healthy, and beneficial for children and preadolescents, there must be reasonable goals for participation and appropriate strategies to attain these goals. Reasonable goals for children and preadolescents participating in organized sports include acquisition of basic motor skills, increasing physical activity levels, learning social skills necessary to work as a team, learning good sportsmanship, and having fun.<sup>13</sup>

Organized sports sessions should be tailored to match the developmental level of participants. Most preschool children have short attention spans and are easily distracted; therefore, exercise sessions should be short and emphasize playfulness, experimentation, and exploration of a wide variety of movement experiences. A reasonable format would consist of no longer than 15 to 20 minutes of structured activity combined with 30 minutes of free play. Concentration will be maximized if instructional sessions take place in a setting with minimal distraction. Instructing younger children using a show-and-tell format with physical demonstration may be more effective than with verbal instruction.

For children and preadolescents, factors such as fun, success, variety, freedom, family participation, peer support, and enthusiastic leadership encourage and maintain participation, whereas others such as failure, embarrassment, competition, boredom, regimentation, and injuries discourage subsequent participation.<sup>14</sup>

Pediatricians, as experts in child development, can help parents and coaches determine readiness of a child to participate in organized sports. Readiness is often defined relative to the demands of the sport. Because different sports and even the same sport may vary widely with respect to demands and expectations, pediatricians must understand these demands to help determine if they are appropriate for the physical and cognitive maturation of participants. Preparticipation examinations are typically not mandated until junior high and high school. However, annual examinations for younger children afford an opportunity to promote physical activity and address issues of readiness as they apply to organized sports.

Pediatricians can further advocate safe sports participation by promoting better education and training of youth sports coaches. Standards for coaching competency are available, and certification for youth sports coaches should address these competencies.<sup>15</sup> In addition, pediatricians can work with sports administrators and coaches within their community to share relevant information on child development, injury assessment, first aid, and injury prevention. Pediatricians can also take an active role in developing safety programs while ensuring that existing safety measures are observed. A pediatrician may be

one of the few adults who can objectively determine when pressures and expectations of organized sports become excessive for any individual or group. Finally, pediatricians can serve as role models for appropriate sideline behavior and can help parents and other adults remember the reasons children want to participate.

#### SUMMARY AND RECOMMENDATIONS

Organized sports for children and preadolescents provide an opportunity for increased physical activity and an opportunity to learn sports and team skills in an environment where risks of participation can potentially be controlled. Unfortunately, when demands and expectations of the sport exceed the maturation or readiness of the participant, benefits of participation are offset. The shift from child-oriented goals to adult-oriented goals can further negate positive aspects of organized sports.

To optimize the safety and benefits of organized sports for children and preadolescents and to preserve this valuable opportunity for young people to increase their physical activity levels, the American Academy of Pediatrics recommends the following:

1. Organized sports programs for preadolescents should complement, not replace, the regular physical activity that is a part of free play, child-organized games, recreational sports, and physical education programs in the schools. Regular physical activity should be encouraged for all children whether they participate in organized sports or not.
2. Pediatricians are encouraged to help assess developmental readiness and medical suitability for children and preadolescents to participate in organized sports and assist in matching a child's physical, social, and cognitive maturity with appropriate sports activities.
3. Pediatricians can take an active role in youth sports organizations by educating coaches about developmental and safety issues, monitoring the health and safety of children involved in organized sports, and advising committees on rules and safety.
4. Pediatricians are encouraged to take an active role in identifying and preserving goals of sports that best serve young athletes.
5. Additional research and resources are needed to:
  - a. determine the optimal time for children to begin participating in organized sports;
  - b. identify safe and effective training strategies for growing and developing athletes;
  - c. educate youth sports coaches about unique needs and characteristics of young athletes; and
  - d. develop effective injury prevention strategies.

COMMITTEE ON SPORTS MEDICINE AND FITNESS,  
2000–2001

Reginald L. Washington, MD, Chairperson  
David T. Bernhardt, MD  
Jorge Gomez, MD  
Miriam D. Johnson, MD  
Thomas J. Martin, MD

Thomas W. Rowland, MD  
Eric Small, MD

#### LIAISONS

Claire LeBlanc, MD  
Canadian Pediatric Society  
Carl Krein, AT, PT  
National Athletic Trainers Association  
Robert Malina, PhD  
Institute for the Study of Youth Sports  
Judith C. Young, PhD  
National Association for Sport and Physical Education

#### SECTION LIAISON

Frederick E. Reed, MD  
Section on Orthopaedics

#### CONSULTANTS

Steven Anderson, MD  
Stephen Bolduc, MD  
Oded Bar-Or, MD

#### STAFF

Heather Newland

#### COMMITTEE ON SCHOOL HEALTH, 2000–2001

Howard L. Taras, MD, Chairperson  
David A. Cimino, MD  
Jane W. McGrath, MD  
Robert D. Murray, MD  
Wayne A. Yankus, MD  
Thomas L. Young, MD

#### LIAISONS

Missy Fleming, PhD  
American Medical Association  
Maureen Glendon, RNCS, MSN, CRNP  
National Association of Pediatric Nurse Practitioners  
Lois Harrison-Jones, EdD  
American Association of School Administrators  
Jerald L. Newberry, MEd, Executive Director  
National Education Association, Health Information Network  
Evan Pattishall III, MD  
American School Health Association  
Mary Vernon, MD, MPH  
Centers for Disease Control and Prevention  
Linda Wolfe, RN, BSN, MEd, CSN  
National Association of School Nurses

#### STAFF

Su Li, MPA

#### REFERENCES

1. American Academy of Pediatrics, Committee on Sports Medicine and Fitness. Organized athletics for preadolescent children. *Pediatrics*. 1989; 84:583
2. American Academy of Pediatrics, Committee on Sports Medicine and Fitness. Fitness, activity, and sports participation in the preschool child. *Pediatrics*. 1992;90:1002–1004
3. Malina RM. Physical growth and biological maturation of young athletes. *Exerc Sports Sci Rev*. 1994;22:389–433
4. Branta C, Haubenstricker J, Seefeldt V. Age changes in motor skills during childhood and adolescence. *Exerc Sports Sci Rev*. 1984;12:467–520
5. Stryer B, Toffler IR, Lapchick R. A developmental overview of child and youth sports in society. *Child Adolesc Psychiatr Clin North Am*. 1998;7: 697–724
6. Kamm RL. A developmental and psychoeducational approach to reducing conflict and abuse in Little League and youth sports. *Child Adolesc Psychiatr Clin North Am*. 1998;7:891–918

7. Roemmich JN, Rogol A. Physiology of growth and development: its relationship to performance in the young athlete. *Clin Sports Med.* 1995;14:483-503
8. American Academy of Pediatrics, Committee on Sports Medicine and Fitness. Risk of injury from baseball and softball in children. *Pediatrics.* 2000;107:782-784
9. American Academy of Pediatrics, Committee on Sports Medicine and Fitness. Safety in youth ice hockey: the effects of body checking. *Pediatrics.* 2000;105:657-658
10. American Academy of Pediatrics, Committee on Sports Medicine and Fitness. Climatic heat stress and the exercising child. *Pediatrics.* 2000; 106:158-159
11. American Academy of Pediatrics, Committee on Sports Medicine and Fitness. Physical fitness and the schools. *Pediatrics.* 2000;105:1156-1157
12. US Department of Health and Human Services. *Physical Activity and Health: A Report of the Surgeon General.* Atlanta, GA: Centers for Disease Control and Prevention; 1996
13. Martens R, Seefeldt V, eds. *Guidelines for Children's Sports.* Reston, VA: National Association for Sport and Physical Education; 1979:1-47
14. Rowland TW. Clinical approaches to the sedentary child. In: *Exercise and Children's Health.* Champaign, IL: Human Kinetics Books; 1990:259-274
15. National Association for Sport and Physical Education. *National Standards for Athletic Coaches: Quality Coaches, Quality Sports.* Dubuque, IA: Kendall/Hunt Publishing Co; 1995:1-124

**Organized Sports for Children and Preadolescents**  
Committee on Sports Medicine and Fitness and Committee on School Health  
*Pediatrics* 2001;107;1459  
DOI: 10.1542/peds.107.6.1459

<b>Updated Information &amp; Services</b>	including high resolution figures, can be found at: <a href="/content/107/6/1459.full.html">/content/107/6/1459.full.html</a>
<b>References</b>	This article cites 11 articles, 5 of which can be accessed free at: <a href="/content/107/6/1459.full.html#ref-list-1">/content/107/6/1459.full.html#ref-list-1</a>
<b>Citations</b>	This article has been cited by 11 HighWire-hosted articles: <a href="/content/107/6/1459.full.html#related-urls">/content/107/6/1459.full.html#related-urls</a>
<b>Subspecialty Collections</b>	This article, along with others on similar topics, appears in the following collection(s): <b>Council on School Health</b> <a href="/cgi/collection/council_on_school_health">/cgi/collection/council_on_school_health</a> <b>Council on Sports Medicine and Fitness</b> <a href="/cgi/collection/council_on_sports_medicine_and_fitness">/cgi/collection/council_on_sports_medicine_and_fitness</a> <b>Sports Medicine/Physical Fitness</b> <a href="/cgi/collection/sports_medicine:physical_fitness_sub">/cgi/collection/sports_medicine:physical_fitness_sub</a>
<b>Permissions &amp; Licensing</b>	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: <a href="/site/misc/Permissions.xhtml">/site/misc/Permissions.xhtml</a>
<b>Reprints</b>	Information about ordering reprints can be found online: <a href="/site/misc/reprints.xhtml">/site/misc/reprints.xhtml</a>

PEDIATRICS is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. PEDIATRICS is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2001 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 0031-4005. Online ISSN: 1098-4275.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™





# PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

## **Organized Sports for Children and Preadolescents**

Committee on Sports Medicine and Fitness and Committee on School Health

*Pediatrics* 2001;107;1459

DOI: 10.1542/peds.107.6.1459

The online version of this article, along with updated information and services, is located on the World Wide Web at:

[/content/107/6/1459.full.html](#)

PEDIATRICS is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. PEDIATRICS is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2001 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 0031-4005. Online ISSN: 1098-4275.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

