

SPECIALIZATION IN YOUTH SPORTS: SOME GUIDELINES

There is no doubt that participation in youth sports is a positive aspect of millions of children's lives all over the world. In the United States, participation in sports has been growing steadily for many years, with the vast majority of participants experiencing many positive outcomes.

Participation in sports is especially important in the US today with the growing epidemic in obesity and overweight children. Yes, that's right! The Surgeon General and Center for Disease Control has declared childhood obesity and overweight problems an epidemic in the United States, with one-third of our children now at risk, leading to serious health concerns over their lifetime. One of the major ways to help young Americans avoid this health risk is to get them playing sports, and help them stay involved so they develop an appreciation for active, healthy lifestyles

The Ideal Sports Development Model

A somewhat recent trend that has developed in sport programs here in the United States is the early specialization of young athletes. Rather than participate in many different sports, many young athletes today pick a sport at a relatively early age, and play that sport almost all year. This is not recommended for a variety of reasons. What is recommended?

The best way to develop both athletic skills and active, healthy lifestyle habits is to participate in a wide variety of sports and activities. A year 2000 policy statement from the American Academy of Pediatrics (AAP) recommends the following:

“Children involved in sports should be encouraged to participate in a variety of different activities and develop a wide range of skills. Young athletes who specialize in just one sport may be denied the benefits of varied activity while facing additional physical, physiologic, and psychological demands from intense training and competition.”

Having spent twenty years studying sport and participating as an athlete, coach and program administrator, I agree wholeheartedly with this recommendation. Young athletes should be encouraged and given opportunities to participate in as wide a variety of sports and activities as possible in their early years. This gives them the opportunity to develop a wide base or foundation of sport and movement skills. This foundation is critical if they are going to have a chance to maximize their potential in sports. This broad foundation of skills also gives kids a wide spectrum of opportunity for continued participation as they grow and mature and hit the more competitive stages of sport participation. Then, with a broad set of skills, the young athlete can “self-select” the sport they want to specialize in when they get a sense of where they will have the most success and fun. This self-selection should ideally occur after the child enters adolescence.

Risks of Specialization

What exactly are the risks of early specialization? The following is a summary of the risks recently highlighted by the American Academy of Pediatrics after a broad review of research and studies from across the United States:

A) **Cardiac:** While in general participation in sports is healthy for cardiac development, caution is still necessary. "Careful assessment of cardiovascular status (heart murmurs, abnormal rhythms) remains important in ongoing medical care of the child athlete." As we have described in past articles, be sure your sport program requires pre-season physicals that include a cardiac assessment.

B) **Musculoskeletal:** Again, the right kind of participation is very good for healthy development and growth, and even stimulates healthy development. "However, excessive stress or overload can lead to tissue breakdown and injury." One of the biggest areas of concern here is what are called "overuse" injuries. These include tendonitis, apophysitis, and stress fractures. USA Today recently highlighted this growing area of trouble for young athletes, with pediatric orthopedic physicians raising the alarm about the increasing number of young athletes developing serious overuse injuries because of early sport specialization. I recommend any athletes, coaches, or parents seeking more information on overuse injuries check with your physician, and visit the National Youth Sport Safety Foundation web-site (www.NYSSF.org) for related articles.

C) **Nutrition:** For young athletes an adequate diet is critical because their additional activity requires a proper diet to support and enhance the training and growth process. As always here, the key is a well-balanced, complete diet. Young athletes should avoid following diets prescribed for elite adult athletes, as their nutritional needs are quite different. In particular, young athletes should be sure their diets include enough iron and calcium. These nutrients are important for adequate oxygen transport, muscle metabolism, cognitive function, and normal, healthy bone growth.

Athletes involved in "judged" sports, such as gymnastic and figure skating, or weight-class sports such as wrestling, are also at-risk for developing eating disorders. Their nutritional intake should be very carefully monitored to insure no dangerous health issues develop. If a parent notices any quick or severe weight loss or change/lack of interest in food, quick assessment and intervention are highly recommended. The key to treating eating disorders is prevention and early intervention. A physician should be consulted immediately if eating problems are detected or suspected.

D) **Psychosocial Development:** Most athletes find sport participation to be a very positive experience. However as the intensity and competitiveness increases, problems may develop in a small percentage of athletes. Some adverse effects to watch for include, "burnout from physical and emotional stress, missed social and educational opportunities, and disruptions of family life. Unrealistic parental expectations and/or exploitation of young athletes for extrinsic gain can contribute to negative psychological consequences."

Recommendations

Given the generally positive and enjoyable outcomes of participation in youth sports, the American Academy of Pediatrics and I recognize it as a wonderful part of healthy child development. The following six recommendations from the AAP will make it even better:

- Children are encouraged to participate in sports at a level consistent with their abilities and interests. Pushing children beyond these limits is discouraged, as is specialization in a single sport before adolescence
- Pediatricians should work with parents to ensure that the child athlete is being coached by persons who are knowledgeable about proper training techniques, equipment, and the unique physical, physiologic, and emotional characteristics of young competitors.
- Physicians and coaches should strive for early recognition and prevention and treatment of “overuse” injuries. Child athletes should never be encouraged to “work through” such injuries
- Children involved in intense training should be monitored regularly by a pediatrician. Attention should be focused on body composition, weight, stature, cardiovascular findings, sexual maturation, and evidence of emotional stress. The pediatrician should be alert for signs and symptoms of overtraining, including decline in performance, weight loss, anorexia, and sleep disturbances.
- Highly specialized young athletes need ongoing assessment of nutritional intake, with particular attention to total calories, a balanced diet, and intake of iron and calcium. Early identification of eating disorders is critical
- Everyone involved, athletes, families and coaches should be educated by the pediatrician about the risks of heat injury (e.g., dehydration) and strategies for prevention.

Conclusion

Most kids have a great experience in sports. Participation in sports activities is even more important these days, with the growing childhood overweight/obesity epidemic in the United States. While, in general, participation in sports is a healthy developmental experience for most young athletes, there is some concern growing about early specialization and the intensity of training. Parents, coaches, and league administrators should be vigilant to the concerns raised by groups such as the American Academy of Pediatrics. We know that sports are a fun, enjoyable, and safe activity for the vast majority of our children. Let's do everything we can to make sports a great experience for every single child who wants to participate.

Note: For more details of the AAP policy statement, see the journal "Pediatrics", Volume 106, number 01, July 2000, pages 154-157, or visit the web-site version at www.aap.org/policy/re9906.html

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