

The Young Athlete: Challenges of Growth, Development, and Society

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BERGERON, M.F. The young athlete: challenges of growth, development, and society. *Curr. Sports Med. Rep.*, Vol. 9, No. 6, pp. 356–358, 2010. *Youth sports provide numerous health-enhancing and other important benefits to participating children and adolescents. However, the motivations and goals of young athletes often conflict with those of adult stakeholders, and they are redirected. The youth sports industry has become exclusionary, as the professional model of development increasingly is prevalent and accepted. Youth who follow this model often cannot keep up with the unrealistic expectations and excessive demands. Too much play, training, travel, and pressure frequently lead to a variety of physical and psychological problems, particularly concurrent with the vulnerability of a young athlete going through pre- or early adolescence and the rapid growth phase. The need for alternative models, emphasizing fun and fundamentals, is becoming increasingly clear and urgent. With appropriate changes, youth sports once again can be an effective entry point for a lifetime of healthy sports participation and enjoyment.*

For young athletes, regular participation in sports can provide numerous psychological and social advantages, as well as improvements in overall health and fitness (3,6,11). If children and adolescents continue to play and have fun, they can enjoy the myriad benefits of healthy sports participation for a lifetime. But too often something goes wrong and they're out, whether because of lost interest, excessive pressure, or one or more injuries from doing too much. Why does this occur? Who is responsible? And what can be done differently?

There are a lot of participants and stakeholders, besides the young athlete, when a child or adolescent immerses him- or herself into the youth sports industry — parents, coaches, school and community administrators, sport governing bodies, and others, including those in the travel and merchandise businesses, all play powerful, influencing roles. So it is not surprising when competing interests and conflicting goals between a young athlete and other stakeholders with vested interests result in unsustainable demands and an assortment of negative consequences. The expert views assembled here in the following articles in this section direct a timely discussion on many of the challenges and problems today in youth sports and emphasize the urgency for effective change.

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Tom Farrey begins with a reminder that *playing* sports with friends can be considerably more attractive and fun to adults and youth compared with engaging in other forms of individual exercise or training that are designed specifically for maintaining or achieving ideal weight, cardiovascular health, or athletic excellence (5). Unfortunately, too often adults determine a young athlete's potential, emphasis on a specialized sports "career," and success (or not) well before adolescence, and the adult stakeholders divert the youth's natural enthusiasm. This is reinforced by making the travel or select teams and progressively distancing these more elite young athletes from their friends and adult attention away from the vast majority of other children and adolescents. The "just average" kids continue to participate enthusiastically for fun and the love of the game, while enjoying a much less high-profile and high-pressure level of accomplishment. Farrey introduces the concern for an increased risk of overload- and overuse-related injuries by specializing too early. Those young athletes who specialize early often also lose out on other experiences and opportunities for athletic success and development and lifelong sport enjoyment. Early sport specialization often is hinged on the misguided parental hopes of achieving an unattainable pro career or a college sport scholarship. In contrast, more unstructured, varied, and seasonal play in the formative years is less costly and demanding on the family and child, and it indeed may foster more creative, better, and healthier athletes in the long run. An interesting question by Farrey challenges us to consider whether we (adults) are promoting the "right" sports in schools and communities for health and lifelong play, recognizing the prevalent head and knee injuries and emphasis

on increased size in football or the arm/shoulder problems and lack of overall energy expenditure in baseball, for example.

Robert M. Malina, Ph.D., FACSM, expands on early sport specialization by noting that year-round, single-sport training seems to be occurring increasingly earlier for youth (8). He also stresses that a focused approach in one sport at such an early age and trying to manipulate the system to gain a developmental advantage are costly and not effective strategies for a child's health or long-term individual athletic achievement. Moreover, the growing emphasis of sport development programs, coaching expertise, and adult attention on the elite athletes increasingly overlooks and excludes the masses of youth who also need and deserve the consideration and support of sport communities and programs. Malina additionally notes that youth single-sport development models and programs are not sufficiently evidence-based, despite recognized, albeit invalid, perceptions of success. There also are numerous examples of prevalent related risks — overuse injury, social isolation, and burnout, to name a few.

In a more detailed and comprehensive examination of overuse injuries in youth sports, John P. DiFiori, M.D., FACSM, also cites year-round, sport-specific training and competition as primary contributing factors (4). Practice, conditioning, and tournament schedules for youth now resemble closely those of professional athletes. Notably, excessive repeated loading characterized by insufficient recovery periods for bone and other tissue to positively adapt typically occurs at a time when young athletes may be particularly vulnerable to such injuries. Growth cartilage and the bone mineral content of the immature skeleton during the adolescent growth spurt especially are susceptible to the high-volume training and competition loads that are determined to be necessary in many sport academy models designed for specialized sport development. Moreover, DiFiori points out that this can be further exacerbated by biomechanical changes and decreased flexibility coincident with rapid growth. A solution could be to focus more on technique and movement during this period versus increased volume and intensity of training and competition. The detrimental effects on a pre- or young adolescent and potential length of recovery time for healing and rehabilitation from a serious overuse/overload injury can be significant and profoundly should underscore to parents and coaches the need to focus on progressive long-term development versus a perceived urgency to be an athletic superstar at 12 or 13 yr old. Further, after a serious musculoskeletal injury, a young athlete's risk of incurring subsequent related injuries often is the same or greater when rehabilitation is minimized and incomplete or the contributing factors related to technique, fitness, training, and preparation/recovery are not corrected.

Stephen R. Norris, Ph.D., offers an alternative approach to youth athlete development that is evolving in Canada (9). In part, this was prompted by the increasing trends in inactivity, overweight, and obesity in Canadian youth. There also was a growing recognition of the need and desire to change organized community sports, encourage better collaboration and common vision among agencies, and increase participation for health and enjoyment. The long-term athlete development (LTAD) system, guided by the Canadian Sport for Life (CS4L) project, is an integrated approach that is progressive

according to growth and maturation, while being inclusive of all skill levels of children in their formative and fundamentals-building years. The LTAD system also still provides opportunities for elite world-class development and sport excellence deliverables. This new Canadian method is reinforced by ongoing quality education and enhanced sport coaching/teaching development, while more deliberately utilizing expertise in clinical science of sport and sports medicine. Noticeably, there is prominent evidence of similarly motivated changes in athlete development in the United States, as well. Certain sport governing bodies have been making appreciable changes in access for youth and more appropriate early entry into their sports, with a principal focus on health and fun. Resistance to such a revolutionary change in Canada and elsewhere is expected. And some may say there is insufficient evidence to alter the current youth sport development systems, even in the face of increasingly recognized injury risk. However, especially with children and adolescents, even when the scientific and clinical data are insufficient or inconclusive, if there is suspected growing harm, parents, coaches, administrators, and sport governing bodies must be proactive and protective — that is, they should side with safety and do everything they can to reduce risk to young athletes (10). Quite likely, this means drastically changing what we currently are doing in youth athlete development.

It is an exciting time in pediatric sports research, education, and clinical care. Myriad topics are being addressed in a variety of pertinent areas on specific critical issues, such as sport-related concussion, overload and overuse, and overscheduling (1,2,7). However, sufficient clinical and field evidence to optimally guide coaches, health care providers, and youth sport governing bodies in providing effective practical solutions to these and a number of other health-related problems facing youth athletes is not available currently. Nonetheless, while we often just do not have enough understanding yet to make the most optimal recommendations, new information is emerging rapidly that hopefully will change the way children and adolescents train, compete, and safely return to play after an injury. But we need to do a much better job with getting the right research, standards of training and development, and expectations to those who can make the most difference for youth on the courts, ice rinks, and fields and in the pools and gyms — that is, the parents, coaches, administrators, and sport governing bodies. Promoting healthy coaching, training, and competition practices overall and emphasizing fitness, skill acquisition, diversified athletic experiences, fun, and realistic attitudes will reduce overall injury risk and truly can enhance the experience, development, and safety of children and adolescents involved in sports. The hope is that parents, coaches, administrators, and sport governing bodies take a different look at and more healthy approach to how young athletes should be introduced to and participate in sports.

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