

# DOWNLOAD PDF THE ADOLESCENT ATHLETE: SPECIAL MEDICAL CONCERNS.

## Chapter 1 : Sports Nutrition for Young Athletes: Vital to Victory

*All athletes should have a complete evaluation done by a trained physician prior to entry into organized sports. Prevention of Injury. Explain the rehabilitation of previous injuries.*

Our Work Inclusive Health Despite severe need and higher health risks, people with intellectual disabilities are often denied health services and die on average 16 years sooner than the general population. Special Olympics Health, made possible by the Golisano Foundation , is creating a world where people with intellectual disabilities have every opportunity to be healthy. Inclusive health means people with ID are able to take full advantage of the same health programs and services available to people who do not have ID. Our goal is to improve access to quality health care for 11 million people with ID. The changes required to reach this milestone have the potential to unlock health care and services for all people with ID worldwide. When people with ID have access to health services, they also have more opportunities for education, employment, sports, and other pathways to reach full participation in society. Impaired coping abilities and communication skills “ common among people with ID ” can mask health concerns. This can lead to a breakdown in the quality of health care and health education, for people with ID. Over the past two decades, Special Olympics has improved the health of people with ID around the world by collaborating with our athletes, health care providers, community organizations, universities, and governments. Since then, we have delivered over 2 million free health screenings and trained more than , health professionals and students to treat people with intellectual disabilities. These providers take these skills back to their practices and provide higher quality health care to people with ID “ not just Special Olympics athletes ” in their communities. We offer health screening in eight areas: A free Special Olympics Healthy Athletes vision screenings led the way to faster times. Improving the health of our athletes with intellectual disabilities is only one benefit of the program. As many as million people worldwide have an intellectual disability. Much of this population has little or no access to proper health care, even in nations with extensive health care systems or services for people with intellectual disabilities. Will Schermerhorn Special Olympics learned the extent of the problem among its athletes in , the first year it offered free health screenings at its World Games. Worldwide, most people with intellectual disabilities receive inadequate or no healthcare. The program addresses the severe health disparities faced by people with intellectual disabilities through immediate and long-term solutions. Special Olympics Thailand U. Will Schermerhorn Healthy Athletes screenings have found that Special Olympics athletes are at increased risk of multiple, secondary health issues such as untreated tooth decay, obesity, poor hearing and low bone density. As a sports organization, Special Olympics was in a unique position to help, and in opened a whole new world of health care to people with intellectual disabilities and their families worldwide by founding its Healthy Athletes program, offering free health screenings, services, and education. Eating nutritious food is one way our athletes stay healthy and strong. Our Programs provide education in food selection and preparation that promote health. Will Schermerhorn Victor Ifesinachi is a basketball player from Nigeria and received a free hearing aid at Healthy Athletes. Before, he never spoke, and the only way for him to communicate with his coach was to read lips and use the limited sign language that he knew. Immediately after getting his hearing device, he started talking and joking with his teammates. Offered in a fun, welcoming environment, Healthy Athletes exams remove the anxiety people with intellectual disabilities often experience when faced with a visit to a doctor. Adam Nurkiewicz Healthy Athletes has provided more than 2. We have given out more than , eyeglasses and trained , health professionals to better treat people with intellectual disabilities. Karl Hejlik Hicham Novara, a swimmer from Morocco, had such poor vision, he was essentially blind. He had to hold his cell phone two inches from his eye to see it. With Healthy Athletes, Special Olympics maintains the largest database of health information for people with intellectual disabilities in existence. By training health care professionals worldwide who then go back to their practices with increased knowledge of and compassion for people with intellectual disabilities, Healthy Athletes is improving the care

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received by millions. Trishann Couvillion The success of Healthy Athletes depends on the support of the volunteer network of health care providers and community members offering opportunities of inclusion for people with intellectual disabilities. Together, we can all create a legacy of care. Special Olympics is meeting with other organizations and individuals who share the idea that people with intellectual disabilities deserve full access to quality healthcare. The need is enormous but Special Olympics is determined to meet it. Healthy Communities Healthy Communities is a model Special Olympics program ensuring year-round access to health care and prevention programming. Special Olympics Programs receive Healthy Community recognition for efforts in creating year-round access to quality health care for people with ID. Through partnerships, fitness and wellness programs, and Special Olympics athlete leadership, we are paving the way for inclusive health.

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## Chapter 2 : Concepts of Athletic Training, Fifth Edition: Interior Example

*Special medical concerns should be considered, however, when caring for young female athletes. Athletes can develop abnormal eating patterns (termed disordered eating), which can be associated with menstrual dysfunction (amenorrhea or oligomenorrhea) and subsequent decreased bone mineral density (BMD), or osteoporosis.*

This work is published and licensed by Dove Medical Press Limited The full terms of this license are available at <https://www.dovepress.com/terms-and-conditions>: By accessing the work you hereby accept the Terms. Non-commercial uses of the work are permitted without any further permission from Dove Medical Press Limited, provided the work is properly attributed. This article has been cited by other articles in PMC. Abstract This article presents a current review of the risk of physical and psychological injury associated with participation in elite youth sport, and suggests strategies to ensure the physical and emotional health of these young athletes. Although there is lack of epidemiological data, especially with regard to psychological injury, preliminary data suggest that the risk of injury is high in this population. While there is lack of incident and follow-up data, there is also concern regarding burnout, disordered eating, and the long-term consequences of injury. Modifiable injury risk factors identified include postural control, competition anxiety, life events, previous injury, and volume of training. There are presently no studies designed to determine the effectiveness of injury prevention measures in elite youth sports. However, there is adequate evidence arising from injury prevention studies of youth sports participants including neuromuscular training, protective equipment, mental training to enhance self-esteem, and sport rules modification to prevent injuries in elite youth sports settings. Although not tested, psychosocial prevention strategies such as adoption of task-oriented coping mechanisms, autonomous support from parents, and a proactive organizational approach also show promise in injury prevention. Trends over recent decades include increased numbers of participants in some sports, particularly girls, increased duration and intensity of training, earlier specialization and year-round training, and increased difficulty of skills practiced. Sport is by its very nature competitive and even during youth it is performed at different levels, with elite young athletes at the top of the performance pyramid. The elite young athlete is one who has superior athletic talent, undergoes specialized training, receives expert coaching, and is exposed to early competition. In recent years, the International Olympic Committee created a more extensive international sporting event for talented young athletes from all over the world. The Summer YOG regularly feature over 3, athletes and are held over a day period, and the Winter YOG feature over 1, athletes and last 10 days. For example, skateboarding, in-line skating, and sport climbing were showcased in the YOG in Nanjing. Bicycle motocross and mountain biking were also included in the Nanjing YOG. This would seem to be particularly true at the elite level given the intensive training programs and high-frequency participation in sports events. The purpose of this article is to provide a current review of risks related to physical and psychological injury that may be encountered by elite youth athletes and to discuss strategies designed to minimize or eliminate these risks. Relevant research arising from youth athletes and elite-level adult athletes is included to augment the limited research related to elite youth athletes, especially with regard to psychological injury. Recommendations are made for further research that focuses on the physical and emotional health of young athletes. Risk of injury Recent data suggest that the risk of sport injury among elite youth athletes is high. Injury rates in badminton were 2. Several studies reported medical encounters for elite youth athletes at world and national championships. Depending on year, from During the YOG, there were total medical encounters among 54 of the 94 registered US athletes No surgeries were required. Among the 1, registered athletes, a total of injuries were incurred, resulting in a reported incidence of Among the 2, registered athletes, a total of injuries were incurred, resulting in a reported incidence of Additionally, tournament rates may not be representative of the nature and incidence of injuries incurred by athletes during training and competition throughout the year, especially with regard to overuse injuries. Risk factors for injury There is little knowledge on injury risk factors specifically pertaining to elite youth athletes. However, analysis of sports injury risk factors in child and adolescent sport

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has identified a number of significant predictors of injury that may inform development and evaluation of injury prevention programs relative to the elite youth sport participant population. Nutrition A lack of research exists regarding the elite youth athlete and nutrition related to energy intake to support growth and, by extension, prevent injury. Most research on nutrition and elite youth athletes is focused on eating disorders. Energy intake is important for performance; however, elite athletes are at risk for developing eating disorders. Elite youth athletes may be at-risk for poor nutrition and eating disorders. Results showed that elite youth athletes who were most susceptible to eating disorders were athletes competing in weight-dependent sports, female athletes, and male athletes in endurance, technical, or power sports. Additionally, athletes who reported an eating disorder pathology were more likely to have depression and anxiety tendencies. Similarly, Ajuied et al 95 reported that in individuals who suffered an ACL rupture, the relative risk of developing moderate-to-severe OA was 3. These results are consistent with follow-up studies of young athletes who sustained meniscus or ACL injuries. Sport burnout is a consequence of chronic stress that results in a young athlete stopping participation in a previously enjoyable sport. It is unknown what may cause burnout, but some theories suggest sport specialization, time conflicts or interest in other activities, or perhaps a psychological stressor. To aid in the prevention of burnout, diversified sports training may be more effective in developing elite-level skills that transfer over in the primary sport. It is thus imperative that an investigation of psychological injury risks of elite youth athletes be examined from a multifaceted approach, as seen in Figure 1.

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## Chapter 3 : AMSSM - American Medical Society for Sports Medicine

*Medical Concerns for the Adolescent Athlete Hayley Queller, MD Special Population – Athletes with sickle cell trait are at a 37 times higher risk of.*

Sports Nutrition for Young Athletes: Vital to Victory By Pamela M. The RD is equally unimpressed with his lunch choices: Ten minutes before a big game, he downs 12 ounces of Coke and a chocolate chip cookie and, more than three hours after the final whistle, finally recovers with a foot-long cheesesteak and large order of fries. But before criticizing him for his precompetition meal of high-fructose corn syrup and fat, she remembers having the same poor eating habits when she was a young athlete, constantly on the run and at the mercy of whatever the school vending machine and cafeteria offered. Critical to Success All athletes strive to compete at the top of their game but, unbeknownst to many of them, their performance relies on their nutritional status. All of these will be reflected in their performance, regardless of their determination. Despite the recognition that young athletes need to pay greater attention to their fuel consumption, recent research suggests that many youths struggle with energy balance, experiencing an energy deficit or surplus. We are all too familiar with this energy surplus, known as overweight or obesity—but that crisis is not the focus of this article. The concern is that many young athletes require greater amounts of nutrients but remain uninformed or unconcerned about their nutrition needs or simply feel powerless to improve their nutritional status. RDs can help young athletes overcome these problems. The number of young athletes in the United States is increasing and estimates are that approximately 30 to 45 million youths aged 6 to 18 participate in some form of athletics. RDs, especially those who are certified specialists in sports dietetics, guide athletes to be leaner, stronger, and able to withstand the rigors of training and competition. By helping athletes improve their diet, RDs can eliminate obstacles to better health and nutrition and thereby help athletes push their limits and reach their full potential. Nutrition professionals can aid young athletes in their quest for victory by recognizing that children and adolescents generally need more calories and protein per pound of body weight than many adults. It is a well-known fact that children need this extra energy to grow, fully develop, and thrive. Nutrient needs further elevate and reach their peak during adolescence. Limited studies of energy balance in young athletes have been published, and conservative recommendations have been made. But self-reported diet records of young athletes often indicate that intake of energy, carbohydrate, and select micronutrients may be below recommended levels. RDs must be aware that these deficiencies exist and are especially apparent in athletes involved in sports that focus on body composition and appearance. The functions, risks of deficiency, and recommendations for each vital micronutrient follow. Calcium Proper intake of calcium is needed to support bone growth, increase bone mass, and aid in nerve impulses and muscle contraction. To ensure proper bone health, keep in mind that the adequate intake of calcium for children aged 9 to 18 is 1,300 milligrams per day. For this reason, young athletes with iron-deficiency anemia may experience performance inhibition ranging from decreased work capacity to extreme fatigue, impaired immune function, and impaired cognitive reasoning. On the other hand, it is important to note that iron toxicity is the most common cause of poisoning death in young children. If you want to avoid recommending a supplement, you can recommend food items that are high in iron, such as red meat and enriched cereals and grains, coupled with fruits and vegetables that are high in vitamin C, which aids in iron absorption. B Vitamins Both vitamin B6 pyridoxine and folate are members of the B-complex of vitamins and are critical components of energy metabolism and blood health. Research differs on whether there are changes in folate and vitamin B6 levels during periods of heavy training. However, the conclusion is usually that exercise does not increase the requirements for these nutrients and the dietary reference intake should be followed. Zinc While an extreme zinc deficiency is uncommon in the United States, athletes are at risk due to poor consumption of foods rich in this mineral. Zinc plays a role in more than enzymatic reactions in the body and is critical for wound healing, tissue growth and maintenance, and immune function. Various studies have shown that zinc status directly affects basal metabolic rate, thyroid

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hormone levels, and protein utilization; thus, zinc is critical to athletes. Dietary protein enhances zinc absorption, and athletes who are most at risk of a deficiency may be vegetarians or those who primarily eat a grain-based diet. With the myriad critical functions to which zinc is linked, consumption of adequate levels of zinc should be stressed. Current research and trends point to deficiencies in overall total energy and carbohydrate intake. Also of concern is deficient fluid intake and consequent altered hydration status of young athletes. The functions, risks of deficiency, and recommendations for each vital macronutrient follows.

**Carbohydrate** In athletes, poor carbohydrate intake results in inadequate glycogen stores and premature fatigue, which not only compromises performance but also forces the body to rely on another source for fuel: Glucose from carbohydrate sources is essential to most body functions during exercise. If glucose is not available for use as fuel during physical activity, the body will take from its protein stores for energy via gluconeogenesis. The young athlete has the capacity to store carbohydrate in the form of glycogen, but this capacity is limited, so carbohydrate must be consumed daily. Carbohydrate needs are based on body weight and intensity of activity. While adult endurance and strength athletes may need more protein per pound of body weight, additional protein needs for young athletes have not been specifically evaluated. However, the ADA has set the following recommendations: A minimum of 1. This is critical to monitor as research shows that the population of young athletes is already at risk for calcium deficiency. This may be due to the higher rate of fat oxidation in children. Below are some easy-to-follow guidelines for consumption of fats: The focus should be on an intake of healthy fat from plant oils and soft margarines made with vegetable oils and on limiting the amounts of fried and processed foods.

**Fluid** Maintaining fluid balance is critical for the young athlete. As rates of youth participation in endurance events climb, legitimate concerns about fluid status have arisen. Aside from the risk of heat-related illness, dehydration is strongly associated with fatigue during exercise. This risk is increased in certain environmental conditions such as high heat and humidity. Compared with adults, young athletes may be at a higher risk for altered fluid status for several reasons: Children experience greater heat stress and heat accumulation, and they have a greater ratio of surface area to body mass and absorb heat more readily. Specific recommendations for fluid consumption are as follows: This can be done by weighing the athlete before and after an event and replacing fluids lost 16 to 24 ounces for every pound lost.

**Overcoming Nutritional Obstacles** While young athletes rely on their parents and health professionals for advice, they are extremely susceptible to peer and media influence and the plethora of misinformation that exists in the sports nutrition world. She suggests that athletes and their parents plan ahead and pack lunches and fueling snacks. Good choices include whole grain granola bars and sandwiches, fresh fruit and vegetables, water, and Gatorade. White suggests that RDs become familiar with the food items offered in school cafeterias and vending machines so athletes will have a better idea of what to select. Taking into account all the obstacles and elevated nutritional needs that young athletes face, the RD mentioned at the beginning of this article approaches the nutritional status of her young client not with an air of condescension but concern. She knows that he made the right choice by asking her for assistance with his diet and performance. As a nutrition professional, she realizes it is her job to help this young athlete understand that to meet the demands of his sport and the physiological needs of his developing body, it is critical that he not deprive himself of macronutrients and micronutrients. Thus, her first goal is to provide simple tips to improve his day-to-day, game-to-game intake. Her final goal is to impress upon him that it is never too early or too late to make nutrition a top priority. She specializes in writing, counseling, and speaking on sports nutrition, weight management, and wellness. Overuse injuries, overtraining, and burnout in child and adolescent athletes. Adolescents involved in weight-related and power team sports have better eating patterns and nutrient intakes than non-sport-involved adolescents. *J Am Diet Assoc.* Dietary intake of adolescent athletes and nonathletes. Thompson J, Manore M. Recommended Intakes for Individuals, Vitamins. Accessed December 31, American Dietetic Association; Nutrition management of the child athlete. *Pediatric Manual of Clinical Dietetics*, 2nd edition. Energy balance in young athletes. *Int J Sport Nutr.* Carbohydrate intake considerations for young athletes. *J Sports Sci Med.* Nutritional concerns for the child and adolescent competitor. Great

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## Chapter 4 : The elite young athlete: strategies to ensure physical and emotional health

*in medical care, many of the considerations at the end of life differ considerably from those at Concerns About Psychologist Prescribing - . william robiner, ph.d., a.b.p.p. department of medicine.*

## Chapter 5 : Concepts of Athletic Training, Sixth Edition

*Chapter The Adolescent Athlete: Special Medical Concerns. 1: Sports account for which one of the following percentages of injuries in children between the ages of.*

## Chapter 6 : Medical concerns for the adolescent athlete.

*The female athlete triad is a widespread and serious healthcare problem that challenges the young female athlete. It requires a multidisciplinary approach to diagnose, to treat, and most.*

## Chapter 7 : PPT - The Adolescent Athlete: Special Medical Concerns PowerPoint Presentation - ID

*Musculoskeletal injuries of the adolescent athlete, specifically those to the shoulder, knee, elbow, and spine Rebecca Jaffe, M.D., Wilmington, Delaware Medical conditions of the adolescent.*

## Chapter 8 : Adolescent Nutrition | Growth and Development

*Selected Issues for the Adolescent Athlete and the Team Physician (16 page PDF) Selected Issues in Injury and Illness Prevention and the Team Physician (11 page PDF).*

## Chapter 9 : Sports Injury Prevention

*1. Iowa Med. Sep;77(9) Medical concerns for the adolescent athlete. Taylor SG, Luckstead EF. PMID: [PubMed - indexed for MEDLINE].*