Nicklaus Children's Hospital

Sports Medicine

NEWSLETTER

October 2016





Congratulations to Dr. Stephen Swirsky who participated as one of the team physicians for USA Judo and was also one of the international technical officials (ITO) for the International Judo Federation at the 2016 Rio Olympic Games.

Preseason Conditioning: The Key to Performance and Injury Prevention

With busy summer schedules filled with social events and vacations, most athletes neglect an important component of training for their sport-preseason conditioning. Injury rates at the start of sporting seasons soar as a consequence of the summer "couch potato" transition to competitive athletics during the first few weeks of opening season. Preseason conditioning facilitates the athlete's safety in the first half of the season. Engaging in six-to-eight weeks of preseason conditioning has positive effects on both injury prevention and performance enhancement. Conditioning targeted to reduce ACL injuries is particularly effective. Programs that incorporate neuromuscular control exercises and plyometric training have the potential to decrease the risk of an in-season ACL injury by up to 72 percent. For optimal impact on performance and injury prevention, young athletes should engage in a preseason conditioning program six weeks prior to beginning their competitive sporting season.

An effective preseason conditioning program should include the following:

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Nicklaus Children's Hospital

Orthopedic Surgery Program

To schedule an appointment with our orthopedic experts, call **(305) 662-8366** or email **orthokids@nicklaushealth.org**

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- Plyometric (jump) training
- Balance training
- Individualized feedback on technique
- Resistance training

Jump For Sports Program

Core control and injury prevention screenings and preseason physicals are equally important to ensure a safe and successful sporting season. The Jump for Sports Program at Nicklaus Children's Hospital focuses on increasing overall leg strength, improving balance and agility, and jump form/mechanics with emphasis on safe techniques. Our team of physical therapists are experts in the care of young and growing athletes at the professional, collegiate, high school, middle school, recreational and club level. The team will partner with the athlete's parents, orthopedists, pediatricians, coaches and athletic trainers to optimize performance in sports.

For more information or to schedule a Jump for Sports program appointment, please call **786-624-2778** or visit **nicklauschildrens.org/JumpforSports**

We're pleased to announce the addition of two athletic trainers to our orthopedic sports health team. Athletic trainers are certified health care providers who work alongside physicians providing therapeutic interventions, rehabilitation, teaching, and sideline care during sporting events.

Fundamental Movement Skills and Sports Performance - The Mountain of Motor Development

With an increasing number of elementary schools dropping physical education class from their curriculum or opting for "virtual" physical education programs, many school-aged children are failing to reach a key developmental milestone - the mastery of fundamental movement skills. Skipping, jumping, hopping, dribbling and a variety of other basic motor skills serve as building blocks for higher-level sports.

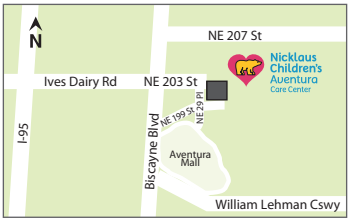
A failure to master fundamental movements during one's elementary school years can result in an inability to achieve what is called "motor proficiency" or reaching one's full-movement capacity. In the mountain of motor development, fundamental movement skills act as the base of a mountain, leading to motor proficiency at the peak. A child who has not mastered basic motor skills, usually faces challenges in mastering higher-level sporting skills, such as sprinting and cutting. This also might contribute to poor sports performance and/or increased risk of sports injury. In addition, young people who have not developed a variety of movement patterns may have less flexibility in changing sports or player positions. Research[1234] has shown that these children are also more likely to have earlier drop-out rates from competitive sports, as well as decreased lifelong fitness.

If a school does not offer physical education and has dropped it from the curriculum, we strongly encourage parents to engage their children in activities outside of school to help them develop the fundamental motor skills needed to remain active and healthy for a lifetime.

Research

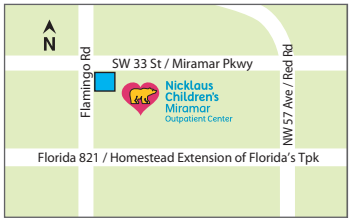
1. Clark, J. E. y Metcalf, J. S. (2002) The mountain of motor development: A metaphor. In J. E. Clark &J.H. Humphrey (Eds) *Motor development: Research and reviews, volume 2* (pp. 163-190). Reston, VA: National Association for Sport and Physical Education.
2. Elizabeth Sarah Bryant, Rob S. James, Samantha Louise Birch & Mike Duncan (2014) *Prediction of habitual physical activity level and weight status from fundamental movement skill level,* Journal of Sports Sciences, 32:19,1775-1782, DOI: 10.1080/02640414.2014.918644
3. Hardy, L., Reinten-Reynolds, T., Espinel, P., Zask, A., & Okely, A. (2012). *Prevalence and correlates of low fundamental movement skill competences in children.* Pediatrics, 130, e390–e398.
4. Seefeldt, V. (1980). Developmental motor patterns: Implications for elementary school physical education. In C. Nadeau, W. Holliwell, K. Newell, & G. Roberts (Eds.), *Psychology of motor behavior and sport* (pp.314–323). Champaign, IL: Human Kinetics.

Locations:

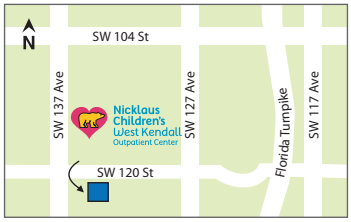


Nicklaus Children's Aventura Care Center
20295 Northeast 29 Place, Suite 300
Aventura, FL 33180

Nicklaus Children's Hospital Main Campus
3100 SW 62 Avenue
Miami, FL 33155



Nicklaus Children's Miramar Outpatient Center
12246 Miramar Parkway
at Miramar Square
Miramar, FL 33025



Nicklaus Children's West Kendall Outpatient Center
13400 SW 120 Street
Miami, FL 33186