



Healthy Ways to Help Your Athletes Succeed!

Tracy Zaslou, MD

Medical Director, Sports Medicine Program in Children's Orthopaedic Center (COC) at Children's Hospital Los Angeles

As Fall begins and our young athletes become immersed in their busy sports seasons, they will be striving to perform at their very best. Sadly, many of these athletes will turn to ergogenic aids to try to get a leg up on their competition. While using substances to enhance performance is a phenomenon that dates back to the Ancient Greeks, Romans and Egyptians, it's an issue we need to address now more than ever as pressures to succeed in sports have increased.

Athletes seek out ergogenic aids to: 1) Be competitive; 2) Gain an edge; 3) Have more energy; 4) Change their size/weight, and most importantly 5) Win! A study that looked at athletes' use of performance enhancing substances showed that if a substance could NOT be detected and would guarantee they'd win every race, 98% of athletes surveyed would use it. The scary secondary question asked, if that substance would also cause their death in 5 years would they still take it and sadly 54% still said they would use that substance. [Bamberger M, Yeager D: Over the Edge: Drug Use in Sports. *Sports Illustrated* 1997, 86(15):35.] Understanding the great risks athletes will take to win highlights the importance of discussing the topic during patient visits.

While many athletes turn to supplements, there are major risks due to high contamination rates and poor regulation by the FDA limited by 1994 Supplement Act. Currently, there are no supplements recommended for the pediatric athlete, however being "Anti-Supplement" will likely leave an athlete feeling unsupported. Thus it is recommended to be "Pro-Athlete" to acknowledge an athlete's desire to pursue advantage. Here are a few educational tips to offer athletes to support their pursuits:

1) Fuel the Body

The best way to "energize" the body is to consume healthy calories. Carbohydrates are good for athletes and ideally comprise about 70% of the diet; this allows athletes to replenish and maintain glycogen stores, build and replenish tissues and maintain body weight. Protein, essential for growth and repair, should comprise about 20% of the diet (Endurance athletes 1.2-1.4g/kg

and Strength athletes 1.4-1.8g/kg/day). However, high protein diets are not recommended for athletes as protein is a poor source of fuel. Ideally athletes meet their protein needs through consuming foods including meat, chicken, fish, and dairy. Protein powders are not recommended due to the risks of contamination, expense and the fact they provide no added benefits over regular dietary ingestion. Healthy fats, recommended to comprise 10% of the diet, are key as a fuel source, to aid in nutrient absorption and maintain core temperature. Good sources of fat include: eggs, coconut oil, meat, cheese and other dairy. Athletes need to understand that just packing on pounds with cookies, chips and fries does not improve performance.

2) Maintain hydration

A hydrated body is a happy body so making sure athletes consume fluids throughout the day is ideal. During activities <1 hour duration water is best. However for activities >1 hour, a glucose-electrolyte beverage is ideal to provide glucose, sodium and potassium. Beware of the “energy drinks” that contain caffeine and other substances that can be dangerous to consume and are not recommended for any pediatric patients.

3) Rest enhances performance

Current training programs are often intense and athletes participate on multiple teams at once such that athletes do not get “days off” from training and competition. Athletes are advised to have at least one day off per week. Additionally, athletes are recommended to participate in only one team at a time to limit overuse injury and emotional burnout. Lastly, sleep is an evidence-based performance enhancer! A recent study demonstrated that students who slept <8 hours/night had 70% more injuries [Milewski, *Journal of Pediatric Orthopaedics*. 2014]. A study of Stanford basketball players actually showed improved free throw percentages and faster sprint times in players who slept an extra 2 hours per night [Mah, *Sleep*, 2011]. Thus, even in our super-speed society, slowing down to rest can lead to great success!