

Los Angeles Pediatric Society E-Newsletter

Volume 4 No. 1

April 2017

LAPS WITH L.A.P.S. : THE SPORTS MEDICINE CORNER



Sports Hydration: What Should Young Athletes be Drinking?

Tracy Zaslow, MD

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

With literally a rainbow of different “sports drinks” on the shelf it’s often hard to know what the right beverage is to recommend for your young athletes. Maintaining appropriate hydration before, during and after physical activity is the key to maximizing sports performance and decreasing the risks of heat illness.

So, what should young athletes drink, how much, and when?

For the young athlete that is exercising for less than one hour, that wonderfully clear, colorless, odorless, readily accessible fluid of choice is water. While the exact amount of water needed to maintain hydration varies based on the age of the athlete, level of activity, temperature, humidity and many other factors, the *American Academy of Pediatrics* recommends the following age-based guidelines for hydration during exercise:

- For 9-12-year-olds: 3-8 ounces (100-250mL) every 20 minutes
- For adolescents: 10-15 ounces (300-450mL) every 20 minutes

If physical activity will be of longer duration (≥ 1 hour) or repeated multiple times in the same day (i.e. football “two-a-days” or day-long tournaments), then a sports drink is recommended.

What is a “sports drink”?

A *sports drink* is a beverage that may contain carbohydrates, electrolytes (i.e. sodium and potassium) and flavoring; while small amounts of vitamins and minerals are sometimes included, they are not essential sports drink ingredients. The goal of drinking a sports drink is to replenish water, carbohydrates and electrolytes lost through sweating during exercise.

It is very important not to confuse sports drinks with energy drinks; they are very different. *Energy drinks* contain a variety of substances that function as stimulants and do not function as nutrition or electrolyte replenishment. Common ingredients found in energy drinks include stimulants (i.e. caffeine, guarana, taurine), protein, amino acids, vitamins and more; many of these additives do not help hydration and may be harmful. For example, caffeine levels in energy drinks can be very high, often much higher than a caffeinated soda or a cup of coffee; some cans/bottles of energy drinks contain more than 500mg of caffeine (the equivalent of 14 cans of the average caffeinated soda) and high enough to cause caffeine toxicity (abnormal heart rhythms, seizures, etc.) in children. Due to all the potentially harmful additives in energy drinks, energy drinks are not recommended as a part of a young athletes' hydration plan.

Should there be *protein* in the young athlete's sports drink?

Some amino acids (the building blocks of protein) are added to both sports and energy drinks. Protein can help with muscle recovery when consumed soon after exercise. While a well-balanced diet with protein intake throughout the day is ideal, low-fat milk (even low-fat chocolate milk) is a great option for a post-exercise recovery drink. But, protein-supplemented sports drinks during exercise are not shown to improve performance, may cause stomach aches and other problems when consumed during exercise and thus, are not recommended for consumption during exercise.

The Re-Cap!

Water is best and the drink of choice for athletic activities less than 1 hour. Consider sports drinks for longer bouts of activity (>1 hour) or for repeated activity in the same day. But, remember to read all the ingredients in the "sports drinks" to make sure it is a simple combination of carbohydrate and electrolytes without lots of other additives and stay away from the "energy drinks".