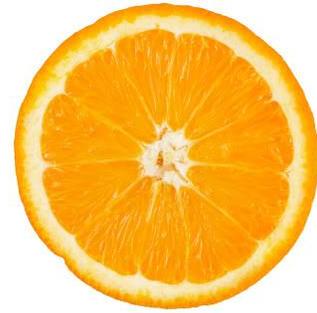


Prep School Performance Nutrition News with Kathleen Searles, MS, RD, LDN



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Summer has flown by and before we know it fall classes and sports will be underway! For many of us, this was a summer of record heat. Along with the heat, beverages have been big news this summer, with NYC's proposed soda ban and with scrutiny from the media on the role of sports drinks, coinciding with the just concluded Olympic Games. So, for this issue the focus will be beverages. Next month we'll take a look at water, the most important and effective way to hydrate!

I hope that you find the information helpful! –

– **Kathleen Searles, MS, RD, LD**

SODA, ENERGY DRINKS, & SPORTS DRINKS



SODA

New York City Mayor Michael Bloomberg has proposed that food service establishments regulated by the city's Health Department must limit serving sizes for regular soda to 16 ounces. This

has led to spirited discussions of whether sugary drinks are a public health threat akin to tobacco. Officials and citizens are also debating the role of government in regulating what we eat and drink. I can't really think of a situation in which someone would need to drink more than 16 ounces of soda at a time. What is your take on this debate?

Soda, often classified as "empty calories" does not offer any particular nutrition advantage. For an active person with a high calorie expenditure (such as most teen-age athletes), occasional soda consumption is probably OK. But for more sedentary teens the extra calories can contribute to overweight. Soda can be a source of

News and Events:

Plan ahead to book sessions for your winter sports athletes! Skiers, snow boarders, hockey players, wrestlers, etc. face unique nutrition challenges for the physical and environmental demands of their sport. I look forward to helping your athletes maximize their performance! Contact me at 978-697-2834 or ksearles@lunchbox-nutritionist.com.

INSTITUTE OF MEDICINE (IOM) GUIDELINES FOR BEVERAGES IN SCHOOLS (APRIL 2007)

This is a summary of the guidelines for elementary through high school age students:

- Plain (non-flavored, non-fortified, non-carbonated) water should be available to students at no cost throughout the school day
- Beverages should be caffeine free
- 100% fruit juice and low-fat milk (flavored or unflavored) are acceptable
- Sports drinks should only be used by student athletes participating in more than one hour of vigorous activity

<http://www.iom.edu/~media/Files/Report%20Files/2007/Nutrition-Standards-for-Foods-in-Schools-Leading-the-Way-toward-Healthier-Youth/factsheet.pdf>

MILK

In the typical American diet milk and dairy products are a primary source of calcium and Vitamin D. These are important nutrients for growth and bone development, especially for adolescents. Milk or flavored milk is also a convenient recovery beverage for athletes, providing fluid, carbohydrate for replenishing glycogen stores, and whey protein for muscle tissue. The IOM standards (see side bar) recommend low-fat or fat free milk. Flavored milk should provide no more than 22 g sugar per 8 oz.

carbohydrates for athletes, but because of its high sugar content it is not always well tolerated in the GI tract.

ENERGY DRINKS

Energy drinks have become very popular with teens, with one study reporting that 42.3% of surveyed teens used an energy drink in the two weeks preceding the survey. Energy drinks typically contain a similar amount of sugar to soda, and contain additional stimulant substances purporting to improve “energy.” The most common energy boosting substance is caffeine. Caffeine has a performance enhancing effect in adult athletes. In combination with glucose (as in regular energy drinks) it is likely effective to improve mental alertness. It is important to note that the performance effects of caffeine have not been studied in children or adolescents. Also, there are concerns about caffeine’s effects on neurological development and about caffeine dependency. The IOM (see sidebar) does not recommend caffeine for school age children.

Other substances often found in energy drinks are guarana and taurine. Guarana is a plant-based substance that contains caffeine. According to the Natural Medicines Comprehensive Database (NMCD) it is considered possibly safe, but there is insufficient evidence to rate its effectiveness. Taurine is an amino acid that is usually adequately available from a normal diet. Studies have looked at its possible effectiveness for improving mental performance and in a variety of disease states. NMCD rates it as possibly safe but with insufficient evidence re: its effectiveness for improved mental performance, although it may be effective in combination with caffeine.

SPORTS DRINKS

Sports drinks are specifically engineered for the fluid, carbohydrate, and electrolyte needs of the athlete. They provide a source of carbohydrate to support blood glucose levels during competition. (Note that the sugar free varieties do NOT provide this benefit.) They also provide electrolytes such as sodium and potassium to replace losses from sweat. They are usually flavored, which may help improve fluid intake.

You may have seen the recent news items questioning the use of sports drinks. In a July article in the British Journal of Medicine (<http://www.bmj.com/content/345/bmj.e4737>) the research behind sports drinks was criticized and potential conflicts of interest in sports drink research were reviewed. Unfortunately, sports drinks have often been misused. Children and teens are drinking sports drinks with meals and as snacks because they are sometimes seen as a healthier alternative to soda. This is not the

Individuals vary in their tolerance to milk; the IOM allows soy milk or lactose free milk. Other milk alternatives should be assessed for their protein and calcium content.

Resources consulted for this issue:

http://www.huffingtonpost.com/2012/07/24/new-york-soda-ban-public-hearing_n_1699591.html

Clinical Report – Sports Drinks and Energy Drinks for Children and Adolescents: Are They Appropriate? 5/29/11.

<http://pediatrics.aappublications.org/content/early/2011/05/25/peds.2011-0965.abstract>

“The Truth About Sports Drinks”

<http://www.bmj.com/content/345/bmj.e4737>

Natural Medicines Comprehensive Database

<http://www.iom.edu/~media/Files/Report%20Files/2007/Nutrition-Standards-for-Foods-in-Schools-Leading-the-Way-toward-Healthier-Youth/factsheet.pdf>

best choice because of the sugar/artificial sweetener, artificial color, and sodium content of sports drinks. The citric acid content can also be damaging to teeth. Sports drinks are, however, helpful for student athletes participating in prolonged (over 1 hour) physical activity sessions. Children and teens exercising in hot environments may need a source of sodium as well as fluid, and sports drinks are a convenient way to achieve this.