



Childhood Obesity: The Link to Drinks

By Rodrick D. McKinlay, MD

Childhood obesity rates have doubled throughout the past 30 years in the United States for children ages 2-5 and 12-19, and tripled in the age group of 6-11. Obesity for children is defined as a body mass index (BMI) at or above the 95th percentile for similar age and gender youths.¹

Social and Environmental Pressures

Many social and environmental pressures lead to greater obesity in children. Chief among these influences is the wide variety and availability of sugar-sweetened drinks that contain little to no nutritional value. These beverages include:

- Soft drinks
- Sports drinks
- Fruit drinks
- Flavored teas and coffees
- Energy drinks

Throughout the past 10-15 years, these drinks have exploded on to the consumer scene, flooding grocery stores, gas stations, convenience stores and vending machines.

Americans have doubled their consumption of soda pop in the last 25 years, a trend that closely follows the obesity epidemic. The average American drinks 1.6 cans of soda pop a day, more than 500 cans a year. Soda drinking is particularly rampant among teenagers. For decades, milk was the most common beverage consumed by children, but by the mid-1990's, boys and girls were drinking twice as much soda pop as milk.

One recent, independent peer-reviewed study from Harvard demonstrated a strong link between consumption of sugar-sweetened beverages and childhood obesity.² Although some studies

conflict regarding the causality between sugar-sweetened beverages and obesity, a number of research studies confirm the Harvard group's findings that increased soft drink and sugar-laden beverage consumption is a risk factor for obesity.³

Not only do sugar-sweetened drinks likely lead to obesity, they are also associated with tooth decay and weakening bones.

Energy Drink Emergence

In the past decade, energy drinks have exploded into the marketplace. In 2006 alone, 500 new energy drinks were launched. Energy drinks, which typically contain large amounts of sugar and caffeine, are equally if not more dangerous to children. Although the target market for energy drinks is young adults aged 18-35, teenagers are consuming significant quantities of these beverages.

Data indicates that soft drinks account for **13 percent** of a teenager's caloric intake – by far the largest source of calories in his or her diet.



Caffeine by the Can

The amounts of caffeine found in such drinks as Red Bull or Rock Star are about 10 grams per ounce. With that in mind, take a look at the amount of caffeine found in other beverages:

- **Red Bull** (8.3 oz can) = 83 grams
- **Rock Star** (16 oz. can) = 160 grams
- **Coca-Cola Classic** (12 oz. can) = 34.5 grams
- **Pepsi-Cola** (12 oz. can) = 38 grams
- **Coffee** (8 oz. cup) = 57 grams

Most experts recommend that children consume well under 100 grams of caffeine per day.

Effects of Caffeine on Children

Pharmacologic effects of caffeine are notable in children, most commonly seen as hyperactivity, sleep disturbances and restlessness. Drinking large amounts of caffeine can also be associated with high blood pressure and frequent headaches.

Researchers have reported that a new practice among college-age students is the simultaneous consumption of energy drinks and alcohol, which allows greater consumption of alcohol since alertness is perpetuated by the energy drink.⁴ In addition, the sugar content of energy drinks is comparable or higher than most

soft drinks. For example, an 8 oz Red Bull contains 27 grams of sugar and a 16 oz Rock Star has 60 grams of sugar, while the typical non-diet soft drink contains 40-45 grams of sugar.

How to Combat the High-calorie Beverage Craze

So what can be done to limit the amount of nutritionally-poor liquid calories that children and adolescents are consuming? On an individual-basis, the best approach is simply to replace soda and sports drinks with water or low-fat milk in children's diets. Water is the best hydrator available. Low-fat milk not only hydrates, but delivers calcium, protein and vitamin D.

Children should be monitored at home with their choice of liquids. A glass of 100 percent fruit juice per day is beneficial, but excessive soda, sport drinks or energy drinks is unhealthy. What happens at school may be out of the immediate control of a parent, but parents can petition the school to eliminate vending machines that sell soft drinks and energy drinks in favor of bottled water.

Moderation in guiding children, of course, is appropriate. Children who are constantly deprived of treats are more likely to binge eat or drink. Also, parental modeling is important. Studies suggest that children who are raised by parents who exert excessive dietary restraint may be more likely to become obese.⁵

Children possess the ability to internally regulate their caloric intake. If they see their parents struggle with alternating dis-inhibited eating (abandoning the effort to control food or drink intake) and restrained eating (conscious decision to restrict intake to control weight), they may pattern their own eating and drinking behavior after their parents instead of allowing their internal energy regulation to guide them. This in turn seems to lead to greater obesity in children.

Conclusion

Parents should adopt healthy eating and drinking patterns, limiting consumption of soft drinks and other sugar-sweetened drinks, and to do so without obsession. Helping children develop a love for the refreshing taste of water or a cold glass of milk will pay immediate health rewards for children as well as dividends for their future health and weight control.

About the Author:

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3. *Wolff et al, Medscape J Med 2008; 10(8):189.*
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5. *Hood et al, International Journal of Obesity 2000; 10:1319-1325.*



ABOUT THE OBESITY ACTION COALITION (OAC)

The Obesity Action Coalition (OAC) is a National non-profit organization dedicated to giving a voice to individuals affected by obesity and helping them along their journey toward better health. Our core focuses are to elevate the conversation of weight and its impact on health, improve access to obesity care, provide science-based education on obesity and its treatments, and fight to eliminate weight bias and discrimination.



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Through the OAC Community, you can get access to:

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