



Fast Facts on Sugary Drinks

(Sept 2014)

Excess Sugar

A 20-ounce bottle of soda contains the equivalent of approximately 16 teaspoons of sugar.¹

The American Heart Association recommends that Americans consume no more than five to nine teaspoons of sugar per day.²

Sugar sweetened beverages are the single largest source of added sugars in the American diet,³ with the average American drinking nearly 42 gallons of sweetened beverages a year, the equivalent of 39 pounds of extra sugar every year.⁴

Excess Calories

Calories from sugar-sweetened beverages add to the calories people consume because they do not satisfy hunger the way calories from solid food or protein beverages do.⁵

Between 1977 and 2001 Americans' daily calorie consumption increased by 250-300 calories,⁶ nearly half of which (43%) came from sugary drinks alone.⁷

Soda and other sugary beverage consumption has more than doubled over the past thirty years to an all-time high of 7% of daily calories, making it the single largest contributor to daily caloric intake in the United States.^{8,9}

Link to Diabetes

Over the past 30 years, adult diabetes rates have nearly tripled,¹⁰ In the same period, soda consumption doubled.¹¹

One in three children born today, including half of Latino and African-American children, are expected to develop diabetes in their lifetime.¹²



We absorb liquid sugar in as little as 30 minutes, much faster than a candy bar, leading to a spike in blood sugar that the body is not well equipped to handle, particularly in repetition.¹³ These spikes in blood sugar can overwhelm the body and lead to the transformation of sugar into fat in the liver, which contributes directly to the development of diabetes.¹⁴

After six months, daily consumption of sugary drinks increases fat deposits in the liver by 150 percent, which directly contribute to both diabetes and heart disease.¹⁵

Individuals who drink one to two sugar-sweetened beverages per day have a 26 percent higher risk for developing type II diabetes.¹⁶

According to the American Diabetes Association, persons with Type 1 and 2 diabetes should limit or avoid consumption of sugar-sweetened beverages.¹⁷

Complications of diabetes include: heart disease, nerve damage, gum infections, kidney disease, hearing impairment, blindness, amputation of toes, feet or legs, and increased risk of Alzheimer's Disease.¹⁸

Link to Obesity

Obesity in the United States has increased dramatically over the past 30 years.¹⁹

More than one-third of U.S. adults (35.7%) are obese.²⁰

There is overwhelming evidence of the link between obesity and the consumption of sweetened beverages, such as soft drinks, energy drinks, sweet teas, and sports drinks.²¹

Obesity increases the risk of diabetes, heart disease, arthritis, asthma, and certain types of cancer.²²

Depending on their level of obesity, 60 to 80 percent of obese adults currently suffer from type 2 diabetes, high blood cholesterol, high blood pressure, or other related conditions.²³

Adults who drink one soda or more daily are 27% more likely to be overweight or obese.²⁴

Among children, those who drink one or more sugar-sweetened beverages per day have 55% greater odds of being overweight or obese.²⁵



Additional Health Problems

Children who frequently consume beverages high in sugar are at increased risk for dental caries. Untreated dental caries can lead to pain, infection, tooth loss, and in severe cases, death.²⁶

Obese children are more likely to suffer from health problems including: asthma, headaches, ear infections, depression, joint and muscle problems and developmental delays.²⁷

Increased Health Care Costs

Medical costs for people who are obese are dramatically higher than those of normal weight.²⁸

Overweight and obesity account for \$147 billion in health care costs nationally, or 9 percent of all medical spending – with half these costs paid publicly through the Medicare and Medicaid programs.²⁹

Diabetes cost the United States an estimated \$245 billion in 2012, with \$176 billion in direct medical costs and \$69 billion in indirect costs (e.g. lost productivity, disability and premature death).³⁰

Average medical expenditures for people with diabetes are 2.3 times higher than for those without diabetes.³¹

In 2007, the average annual treatment cost per case for diagnosed diabetes in the U.S. was nearly \$10,000. Every person, even those unaffected by the disease, is estimated to pay a “hidden diabetes tax” of over \$700, through higher insurance premiums.³²

In California, a third of all hospitalizations in 2011 involved patients with a diabetes diagnosis. Hospital charges totaled \$35 billion – of that, an estimated \$17.3 billion was spent on patients with diabetes.³³

In California, the average hospital stay for a diabetic patient cost \$2,200 more than stays for patients without diabetes, and a majority of these hospitalizations were paid for by public insurance.³⁴

-
1. Wang YC, Coxson P, Shen YM, Goldman L, Bibbins-Domingo K. A penny-per-ounce tax on sugar-sweetened beverages would cut health and cost burdens of diabetes. *Health Aff (Millwood)*. 2012;31(1):199-207.
 2. Johnson RK, Appel LJ, Brands M, et al. Dietary sugars intake and cardiovascular health: a scientific statement from the American Heart Association. *Circulation*. 2009;120(11):1011-1020.
 3. Welsh JA, Sharma AJ, Grellinger L, Vos MB. Consumption of added sugars is decreasing in the United States. *Am J Clin Nutr*. 2011;94(3):726-734.
 4. Babey SH, Jones M, Yu H, Goldstein H. *Bubbling Over: Soda Consumption and Its Link to Obesity in California*. UCLA Center for Health Policy Research and California Center for Public Health Advocacy, 2009.
 5. Pan A, Hu FB. Effects of carbohydrates on satiety: differences between liquid and solid food. *Curr Opin Clin Nutr Metab Care*. 2011;14(4):385-390.
 6. Guthrie JF, Morton JF. Food sources of added sweeteners in the diets of Americans. *Journal of the American Dietetic Association*. 2000; 100:43-51.
 7. Woodward-Lopez G, Kao J, Ritchie L. To what extent have sweetened beverages contributed to the obesity epidemic? *Public Health Nutrition*. 2011; 14(3):499-509.



8. "Dietary Sugars Intake and Cardiovascular Health. A Scientific Statement from the American Heart Association." *Circulation*. August 2009
9. Welsh JA, Sharma AJ, Grellinger L, Vos MB. Consumption of added sugars is decreasing in the United States. *Am J Clin Nutr*. Sep 2011;94(3):726-734.
10. National Health Interview Survey. Available at cdc.gov/diabetes/statistics/slides/long_term_trends.pdf.
11. Nielsen SJ, Popkin BM. Changes in beverage intake between 1977 and 2001. *Am J Prev Med*. 2004;27:205-10.
12. Naryan KM, Boyle J, et. Al. Lifetime Risk for Diabetes Mellitus in the United States. *AMA*. 2003;290(14):1884-1890.
13. JP, Shapira N, Debeuf P, et al. Effects of soft drink and table beer consumption on insulin response in normal teenagers and carbohydrate drink in youngsters. *Eur J Cancer Prev* 1999;8:289-95.
14. Mayes, PA (1993). Intermediary metabolism of fructose. *American Journal of Clinical Nutrition*. 58: 5, 754S-765S
15. Maersk M, Belza A, Stodkilde-Jorgensen H, et al. Sucrose-sweetened beverages increase fat storage in the liver, muscle, and visceral fat depot: a 6-mo randomized intervention study. *Am J Clin Nutr*. Feb 2012;95(2):283-289.
16. Malik VS, Popkin BM, Bray GA, Despres JP, Willett WC, Hu FB. Sugar-sweetened beverages and risk of metabolic syndrome and type 2 diabetes: a meta-analysis. *Diabetes Care*. 2010;33(11):2477-2483.
17. American Diabetes Association. Sugar and Desserts. Web 2013. Accessed January 16, 2014 at <http://www.diabetes.org/food-and-fitness/food/what-can-i-eat/understandi...>
18. American Diabetes Association. Complications. Web. Accessed on January 16, 2014 at <http://www.diabetes.org/living-with-diabetes/complications/>
19. Flegal KM, Carroll MD, Ogden CL, Curtin LR. Prevalence and Trends in Obesity Among US Adults, 1999-2008. *JAMA*. 2010;303(3):235-241. doi:10.1001/jama.2009.2014.
20. National Center for Health Statistics. Data Brief: Prevalence of Obesity in the United States, 2009-2010. 2012. Accessed March 11, 2014 at <http://www.cdc.gov/nchs/data/databriefs/db82.pdf>
21. Hu, FB. Resolved: there is sufficient scientific evidence that decreasing sugar-sweetened beverage consumption will reduce the prevalence of obesity and obesity-related diseases. *Obesity reviews*. 2013;14:606-619.
22. Office of the Surgeon General. The Surgeon General's Vision for a Healthy and Fit Nation. Rockville, MD, U.S. Department of Health and Human Services; 2010.
23. 2Trust for America's Health and Robert Wood Johnson Foundation. F as in Fat: How Obesity Threatens America's Future – Fast Facts: Obesity and Health. 2013. Accessed January 15, 2014 at <http://fasinfat.org/facts-on-obesity-and-health/>
24. Babey SH, Jones M, Yu H, Goldstein H. Bubbling Over: Soda Consumption and Its Link to Obesity in California. UCLA Center for Health Policy Research and California Center for Public Health Advocacy, 2009.
25. Morenga LT, Mallard S, Mann J. Dietary sugars and body weight: systematic review and meta-analyses of randomised controlled trials and cohort studies. *Brit Med J*. Jan 15 2013;346.
26. Sohn W, Burt BA, Sowers MR. Carbonated Soft Drinks and Dental Caries in the Primary Dentition. *J Dent Res*. 2006; 85(3): 262-266.
27. Halfon N, Larson K, Slusser W. Associations Between Obesity and Comorbid Mental Health, Developmental, and Physical Health Conditions in a Nationally Representative Sample of US Children Aged 10 to 17. *Academic Pediatrics* 2013;13:6-13
28. Finkelstein EA, Trogdon JG, Cohen JW, Dietz W. Annual Medical Spending Attributable to Obesity: Payer- and Service-specific Estimates. *Health Affairs*. 2009;28(5):w822-831.
29. Finkelstein EA, Trogdon JG, Cohen JW, Dietz W. Annual Medical Spending Attributable to Obesity: Payer- and Service-specific Estimates. *Health Affairs*. 2009;28(5):w822-831.
30. Centers for Disease Control. National Diabetes Statistics Report, 2014. <http://www.cdc.gov/diabetesS/pubs/statsreport14/national-diabetes-report-...> . Accessed June 23, 2014.
31. Centers for Disease Control. National Diabetes Statistics Report, 2014. <http://www.cdc.gov/diabetesS/pubs/statsreport14/national-diabetes-report-...> . Accessed June 23, 2014.
32. California Diabetes Program. 2012 California Diabetes Program Fact Sheet, 2012. <http://www.caldiabetes.org/content.cfm?contentID=1259&ProfilesID=22>. Accessed June 23, 2014.
33. UCLA Center for Health Policy Research. Health Policy Brief – Diabetes tied to a third of California hospital stays, driving health care costs higher, 2014.
34. UCLA Center for Health Policy Research. Health Policy Brief – Diabetes tied to a third of California hospital stays, driving health care costs higher, 2014.