

Supplement. Final Articles of Comprehensive Literature Survey of Experimental Research of SSB Consumption on Obesity- and Diabetes-Related Outcomes (*n* = 60)

Article (Experimental Studies in Humans)	Research Conclusion (Positive/Negative)	Outcome: Primary/Second	SSB Industry Sponsorship/Conflicts of Interest
Campos, V., et al., Sugar-and artificially sweetened beverages and intrahepatic fat: A randomized controlled trial. <i>Obesity</i> . 2015.	Positive	Intrahepatic fat	YES: Authors received research support from Nestlé SA, and Ajinomoto Co Inc, Japan, for studies unrelated to this work and speaker's honoraria from Nestlé SA, Switzerland, Ferrero, Italy.
Kuzma, J. N et al. <i>The American Journal Of Clinical Nutrition</i> , 2015.	Positive	Energy intake	None
Zheng, M et al., Replacing sugary drinks with milk is inversely associated with weight gain among young obesity-predisposed children. <i>British Journal of Nutrition</i> . 2015	Positive	Body weight (and BMI z- score).	None
Sørensen, L. B., et al.	Negative	Change in body weight	YES: Danisco Sugar (unrestricted grant),

<p>(2014). Sucrose compared with artificial sweeteners: a clinical intervention study of effects on energy intake, appetite, and energy expenditure after 10 wk of supplementation in overweight subjects. <i>The American Journal Of Clinical Nutrition</i>, 2014.</p>			<p>and Coca Cola (Nordic and Eurasia Divisions) (unrestricted grant)</p>
<p>Saito, H., et al. Simultaneous ingestion of fructose and fat exacerbates postprandial exogenous lipidemia in young healthy Japanese women. <i>Journal of atherosclerosis and thrombosis</i>, 2013.</p>	<p>Positive</p>	<p>serum triglyceride</p>	<p>None</p>
<p>Aeberli et al. Low to moderate sugar-sweetened beverage consumption impairs glucose and lipid metabolism and promotes inflammation in</p>	<p>Positive</p>	<p>LDL particle distribution, other parameters of glucose and lipid metabolism and inflammatory markers</p>	<p>None</p>

healthy young men: a randomized controlled trial. <i>Am J Clin Nutrition</i> 2011.			
Aeberli, I., et al. Moderate amounts of fructose consumption impair insulin sensitivity in healthy young men. <i>Diabetes Care</i> , 2013	Positive	LDL cholesterol / total cholesterol; hepatic suppression of glucose production	None
Jin, R et al. Children with NAFLD are more sensitive to the adverse metabolic effects of fructose beverages than children without NAFLD. <i>The Journal of Clinical Endocrinology & Metabolism</i> , 2012.	Positive	plasma lipid levels	None
de Ruyter JC, et al. A trial of sugar-free or sugar-sweetened beverages and body weight in children. <i>N Engl J Med</i> 2012.	Positive	z-score of BMI	None
Maersk, M., et al. Satiety scores and	Positive	Changes in appetite scores, GLP-1, and GIP	None

<p>satiety hormone response after sucrose-sweetened soft drink compared with isocaloric semi-skimmed milk and with non-caloric soft drink: a controlled trial. <i>European Journal Of Clinical Nutrition</i>, 2012</p>			
<p>Ebbeling CB, Feldman HA, Chomitz VR, et al. A randomized trial of sugar-sweetened beverages and adolescent body weight. <i>N Engl J Med</i> 2012</p>	<p>Positive</p>	<p>Change in BMI</p>	<p>None</p>
<p>Maersk, M., et al. Sucrose-sweetened beverages increase fat storage in the liver, muscle, and visceral fat depot: a 6-mo randomized intervention study. <i>The American Journal Of Clinical Nutrition</i>, 2012</p>	<p>Positive</p>	<p>Intrahepatic fat and intramyocellular fat</p>	<p>None</p>
<p>van Can, J. G., et al. Reduced glycaemic</p>	<p>Negative</p>	<p>Postprandial rise in plasma glucose and insulin</p>	<p>YES Cargill food product industry (European</p>

<p>and insulinaemic responses following trehalose and isomaltulose ingestion: implications for postprandial substrate use in impaired glucose-tolerant subjects. <i>British Journal of Nutrition</i>, 2012.</p>		<p>concentrations</p>	<p>food and beverage industry)</p>
<p>Le, M. T., et al. Effects of high-fructose corn syrup and sucrose on the pharmacokinetics of fructose and acute metabolic and hemodynamic responses in healthy subjects. <i>Metabolism</i>, 2012</p>	<p>Positive</p>	<p>A variety of metabolic biomarkers</p>	<p>None</p>
<p>Cox, C. L., et al. Consumption of fructose-sweetened beverages for 10 weeks reduces net fat oxidation and energy expenditure in overweight/obese men and women. <i>European Journal Of Clinical</i></p>	<p>Positive</p>	<p>Changes in substrate utilization and energy expenditure</p>	<p>None</p>

<i>Nutrition</i> ,2012.			
Reid, M., et al. Effects of sucrose drinks on macronutrient intake, body weight, and mood state in overweight women over 4weeks. <i>Appetite</i> , 2010	Negative	Weight gain	YES: BBSRC and the Sugar Bureau (lobby group for British sugar industry)
Manders, R. J., et al. Prevalence of daily hyperglycemia in obese type 2 diabetic men compared with that in lean and obese normoglycemic men: effect of consumption of a sucrose-containing beverage. <i>The American Journal Of Clinical Nutrition</i> , 2009.	Negative	Glycemic control	YES: Suikerstichting Nederland (Sugar Board of Netherlands)
Teff, K. L., Grudziak, J., Townsend et al. Endocrine and metabolic effects of consuming fructose- and glucose-sweetened beverages	Positive	Metabolic profiles; insulin secretion, diurnal leptin profiles, postprandial TG concentrations	None

with meals in obese men and women: influence of insulin resistance on plasma triglyceride responses. <i>The Journal of Clinical Endocrinology & Metabolism</i> , 2009.			
Henry, C. J. K., et al. Low-glycaemic index sweetener-based beverages reduce 24-h glucose profiles in healthy adults. <i>Journal of Human Nutrition and Dietetics</i> , 2009.	Positive	24-h glucose levels	None
Albala, C., et al. Effects of replacing the habitual consumption of sugar-sweetened beverages with Milk In Chilean Children. <i>The American Journal Of Clinical Nutrition</i> , 2008.	Positive	Changes in lean body mass and growth	None
Harper, A., et al. Increased satiety after intake of a chocolate	Negative	Differences in subjective appetite scores and energy intake	YES: Author is a member of several advisory boards for the food and beverage industry

<p>milk drink compared with a carbonated beverage, but no difference in subsequent ad libitum lunch intake. <i>British Journal of Nutrition</i>, 2007.</p>			<p>and is a Medical Advisor for Weight Watchers. The present study was supported by Arla.</p>
<p>Stanhope, K. L., et al. A dose-response study of consuming high-fructose corn syrup-sweetened beverages on lipid/lipoprotein risk factors for cardiovascular disease in young adults. <i>The American Journal Of Clinical Nutrition</i>, 2015.</p>	<p>Positive</p>	<p>Circulating lipid/lipoprotein</p>	<p>None</p>
<p>Jin, R., et al. Dietary fructose reduction improves markers of cardiovascular disease risk in Hispanic-American adolescents with NAFLD. <i>Nutrients</i>, 2014.</p>	<p>Positive</p>	<p>Changes in adipose insulin sensitivity, high sensitivity C-reactive protein and low-density lipoprotein oxidation</p>	<p>None</p>
<p>Lowndes, J et al. The Effects of Fructose-</p>	<p>Negative</p>	<p>uric acid-mediated endothelial dysfunction; total cholesterol</p>	<p>YES: ConAgra Foods, Kraft Foods, the Florida</p>

<p>Containing Sugars on Weight, Body Composition and Cardiometabolic Risk Factors When Consumed at up to the 90th Percentile Population Consumption Level for Fructose. <i>Nutrients</i>, 2014.</p>		<p>and lipid profile</p>	<p>Department of Citrus, PepsiCo International, The Coca Cola Company, Pepper Snapple Group, the Corn Refiners Association, Weight Watchers International, and various publishers which have an interest in sugar consumption</p>
<p>Bravo S, et al. Consumption of sucrose and high-fructose corn syrup does not increase liver fat or ectopic fat deposition in muscles. <i>Appl Physiol Nutr Metab</i> 2013.</p>	<p>Negative</p>	<p>Ectopic fat storage in the liver and muscles</p>	<p>YES: Rippe Lifestyle Institute, ConAgra Foods, PepsiCo International, Kraft Foods, the Corn Refiners Association, and Weight Watchers International</p>
<p>Yu Z, et al. High-fructose corn syrup and sucrose have equivalent effects on energy-regulating hormones at normal human consumption levels. <i>Nutr Res</i> 2013.</p>	<p>Negative</p>	<p>Energy-regulating hormones and metabolic substrates)</p>	<p>YES: ConAgra Foods, PepsiCo International, Kraft Foods, the Corn Refiners Association, and Weight Watchers International</p>
<p>Ebbeling, C. B., et al. Effects of decreasing sugar-sweetened beverage consumption on body</p>	<p>Positive</p>	<p>Change in BMI</p>	<p>None</p>

weight in adolescents: a randomized, controlled pilot study. <i>Pediatrics</i> , 2006.			
Gugliucci, A., et al. Short-term isocaloric fructose restriction lowers apoC-III levels and yields less atherogenic lipoprotein profiles in children with obesity and metabolic syndrome. <i>Atherosclerosis</i> . 2016.	Positive	Primary outcome: HDL and LDL subclasses; change in apoC-III levels.	None
Article: Systematic Reviews or Meta-Analyses of Experimental Studies			
Della Torre, S. B., et al. Sugar-sweetened beverages and obesity risk in children and adolescents: a systematic analysis on how methodological quality may influence conclusions. <i>Journal of the Academy of</i>	Positive	Obesity	None

<i>Nutrition and Dietetics, 2016.</i>			
Zheng M, et al. Substitution of sugar-sweetened beverages with other beverage alternatives: a review of long-term health outcomes. <i>J Acad Nutr Diet</i> 2015	Positive	Body Weight	None
Trumbo PR, Rivers CR. Systematic review of the evidence for an association between sugar-sweetened beverage consumption and risk of obesity. <i>Nutr Rev</i> 2014	Negative	Obesity	None
Malik, V. S., et al. Sugar-sweetened beverages and weight gain in children and adults: a systematic review and meta-analysis. <i>The American Journal of Clinical Nutrition</i> 2013.	Positive	Weight gain	None
Hu, F. B. Resolved: there is sufficient scientific evidence that decreasing sugar-	Positive	Obesity and Type 2 Diabetes	None

<p>sweetened beverage consumption will reduce the prevalence of obesity and obesity-related diseases. <i>Obesity Reviews</i>, 2013</p>			
<p>Te Morenga L, et al. Dietary sugars and body weight: systematic review and meta-analyses or randomized controlled trials and cohort studies. <i>BMJ</i>, 2012</p>	<p>Positive</p>	<p>Body fatness</p>	<p>None</p>
<p>Dolan LC, et al. Evidence-based review on the effect of normal dietary consumption of fructose on development of hyperlipidemia and obesity in healthy, normal <i>weight individuals</i>. <i>Crit Rev Food Sci Nutr</i> , 2010</p>	<p>Negative</p>	<p>Triglycerides and body weight</p>	<p>YES: Tate and Lyle (company that makes sugar-based food and beverage ingredients)</p>
<p>Dolan LC, et al. Evidence-based review on the effect of normal dietary consumption of fructose on blood</p>	<p>Negative</p>	<p>Blood lipids and body weight</p>	<p>YES: Tate and Lyle (company that makes sugar-based food and beverage ingredients)</p>

lipids and body weight of overweight and obese individuals. <i>Crit Rev Food Sci Nutr</i> 2010.			
Mattes, R. D., et al. Nutritively Sweetened Beverage Consumption and Body Weight: A Systematic Review and Meta-Analysis of Randomized Experiments. <i>Obesity Reviews</i> , 2011.	Negative	Body weight	YES: SlimFast Foods, Frito-Lay, Kellogg Co, the Coca-Cola Company, PepsiCo, McDonald's Corporation, the NY State Restaurant Association, the Dairy Council, General Mills, Kraft Foods, and PomWonderful
Ruxton CH, et al. Is sugar consumption detrimental to health? A review of the evidence 1995-2006. <i>Crit Rev Food Sci Nutr</i> 2010	Negative	BMI	YES: Sugar Bureau (UK)
Gibson, S. Sugar-sweetened soft drinks and obesity: a systematic review of the evidence from observational studies and interventions. <i>Nutr Res Rev</i> 2008.	Negative	Obesity	YES: Union of European Beverages Association

<p>Forshee et al. Sugar-sweetened beverages and body mass index in children and adolescents: a meta-analysis. <i>Am J Clin Nutr</i> 2008.</p>	<p>Negative</p>	<p>BMI in children and adolescents</p>	<p>YES: American Beverage Association, and The research center with which the authors are affiliated has received financial support from the Coca-Cola Company and PepsiCo Inc</p>
<p>Forshee et al. A critical examination of the evidence relating high fructose corn syrup and weight gain. <i>Crit Rev Food Sci Nutr</i>, 2007.</p>	<p>Negative</p>	<p>Overweight and obesity</p>	<p>YES: Tate and Lyle, Inc. (company that manufactures sugar-based food and beverage ingredients)</p>
<p>Ha, V., et al. Fructose-containing sugars, blood pressure, and cardiometabolic risk: a critical review. <i>Current hypertension reports</i>, 2013.</p>	<p>Negative</p>	<p>Blood pressure, uric acid, obesity, glycemic control</p>	<p>YES: Calorie Control Council, and The Coca-Cola Company, and many more</p>
<p>Slavin, J. Beverages and body weight: challenges in the evidence-based review process of the Carbohydrate Subcommittee from the 2010 Dietary</p>	<p>Negative</p>	<p>Body weight, metabolic processes</p>	<p>YES: Author is affiliated w/ General Mills, Inc., Tate and Lyle, Nestle Health Sciences, Kellogg Company, and others.</p>

<p>Guidelines Advisory Committee. <i>Nutrition Reviews</i>, 2012.</p>			
<p>Malik, V. S., et al. Intake of sugar-sweetened beverages and weight gain: a systematic review. <i>The American Journal of Clinical Nutrition</i>, 2006.</p>	<p>Positive</p>	<p>Weight gain and obesity</p>	<p>None</p>
<p>Vartanian LR, et al. Effects of soft drink consumption on nutrition and health: a systematic review and meta-analysis. <i>Am J Public Health</i>, 2007.</p>	<p>Positive</p>	<p>Energy intake and body weight</p>	<p>None</p>
<p>Olsen & Heitmann (2009). Intake of calorically sweetened beverages and obesity. <i>Obes Rev</i> 10: 68-75</p>	<p>Positive</p>	<p>Obesity</p>	<p>None</p>

<p>Dennis, E. A et al. Beverage Consumption and Adult Weight Management: A Review. <i>Eating Behaviors</i>, 2009.</p>	<p>Positive</p>	<p>Weight gain</p>	<p>None</p>
<p>Harrington, S. The role of sugar-sweetened beverage consumption in adolescent obesity: a review of the literature. <i>J Sch Nurs</i>, 2008.</p>	<p>Positive</p>	<p>Weight management</p>	<p>None</p>
<p>Kelishadi R, et al. Association of fructose consumption and components of metabolic syndrome in human studies: a systematic review and meta-analysis. <i>Nutrition</i> 2014.</p>	<p>Positive</p>	<p>Metabolic syndrome</p>	<p>None</p>
<p>Gomez-Miranda LM, et al. Randomized clinical trials on the sugar sweetened beverages on adiposity in olders than 13 y; systematic review. <i>Nutr Hosp</i> 2013</p>	<p>Positive</p>	<p>Adiposity</p>	<p>None</p>

<p>Jimenez-Cruz A, et al. Randomized clinical trials of the effect of sugar sweetened beverages consumption on adiposity in youngers than 16 y old; systematic review. <i>Nutr Hosp</i> 2013.</p>	<p>Positive</p>	<p>Adiposity</p>	<p>None</p>
<p>Cozma et al. Effect of Fructose on Glycemic Control in Diabetes. <i>Diabetes Care</i>, 2012.</p>	<p>Negative</p>	<p>Fasting glucose and insulin</p>	<p>YES: Calorie Control Council, The Coca-Cola Company, Canola Council of Canada, General Mills, Kellogg, and many more food / beverage companies</p>
<p>Sievenpiper JL, et al. Effect of fructose on body weight in controlled feeding trials: a systematic review and meta-analysis. <i>Ann Intern Med</i> 2012</p>	<p>Negative</p>	<p>Weight gain</p>	<p>YES: Calorie Control Council, The Coca-Cola Company (investigator initiated, unrestricted grant), Pulse Canada Advanced Food Materials Network, Kellogg, Loblaw Brands Ltd, Canadian Sugar Institute Group, and many others</p>
<p>Sievenpiper JL, et al. Heterogeneous effects of fructose on blood lipids in individuals with type 2 diabetes: systematic review and meta-analysis of</p>	<p>Negative</p>	<p>Blood lipids</p>	<p>YES: The Coca-Cola Company, (Atlanta, GA). Authors have received travel fees and honorarium from Archer Daniels Midland and consultant fees from Pulse Canada via BDSK Consulting, Toronto, Ontario, Canada. C.W.C.K. serves on the scientific advisory board for Pulse</p>

<p>experimental trials in humans. <i>Diabetes Care</i> 2009;</p>			<p>Canada, has received consultant fees from Pulse Canada via BDSK Consulting, and have served on the scientific advisory board, received research support, travel support, consultant fees, or honoraria from Loblaws, Orafiti (which produces ingredients for food and beverages), and many others</p>
<p>Livesey G, et al. Fructose consumption and consequences for glycation, plasma triacylglycerol, and body weight: meta-analyses and meta-regression models of intervention studies. <i>Am J Clin Nutr</i> 2008.</p>	<p>Negative</p>	<p>Body weight, glycation</p>	<p>YES: Danisco Sweeteners</p>
<p>Sievenpiper JL, et al. 'Catalytic' doses of fructose may benefit glycaemic control without harming cardiometabolic risk factors: a small meta-analysis of randomised controlled feeding trials. <i>Br J Nutr</i> 2012.</p>	<p>Negative</p>	<p>Glycemic control, body weight</p>	<p>YES: Calorie Control Council. Authors have received support from the Coca-Cola Company and is a co-investigator on an unrestricted research grant from The Coca-Cola Company, Archer Daniels Midland, Pulse Canada, Loblaws, Inc., Paramount Farms, Herbalife International, The Coca-Cola Sugar Advisory Board, Pepsi Company, Agrifoods and Agriculture Canada (AAFC), Canadian Agriculture Policy Institute (CAPI), Advanced Foods and Material Network and many more.</p>

<p>Kaiser, K. A., et al. Will reducing sugar-sweetened beverage consumption reduce obesity? Evidence supporting conjecture is strong, but evidence when testing effect is weak. <i>Obesity Reviews</i>, 2013.</p>	<p>Negative</p>	<p>Obesity and BMI</p>	<p>YES: The Coca-Cola Company, PepsiCo, Red Bull, and Kraft Foods</p>
<p>Stanhope et al. Adverse metabolic effects of dietary fructose: results from the recent epidemiological, clinical, and mechanistic studies. <i>Curr Opin Lipidol</i>, 2013.</p>	<p>Positive</p>	<p>Metabolic syndrome, cardiovascular disease, and type 2 diabetes</p>	<p>None</p>
<p>Wang, D. et al. "The Effects of Fructose Intake on Serum Uric Acid Vary among Controlled Dietary Trials." <i>The Journal of Nutrition</i> 2012.</p>	<p>Negative</p>	<p>Serum Uric Acid</p>	<p>YES: Calorie Control Council, The Coca-Cola Company, General Mills, Kellogg's Pepsi Company, and many more food/ beverage companies</p>

<p>Wang D, et al. Effect of fructose on postprandial triglycerides: a systematic review and meta-analysis of controlled feeding trials. <i>Atherosclerosis</i> 2014</p>	<p>Negative</p>	<p>Post-prandial triglycerides</p>	<p>YES: Calorie Control Council. Authors have received support from The Coca-Cola Company (investigator initiated, unrestricted grant), Pulse Canada, Advanced Food Materials Network, Kellogg, and many others</p>
---	-----------------	------------------------------------	---

SSB = sugar-sweetened beverage.