

**Supplementary Table 1.** Average Characteristics<sup>a</sup> of Participants According to Sugar-Sweetened Beverage Consumption Categories in the Offspring Study and Third Generation

	SSB consumption categories (servings)					
	Offspring			Third Generation		
	Non-consumers (0-<1/month)	Occasional (1/month-<1/week)	Frequent (≥1/week)	Non-consumers (0-<1/month)	Occasional (1/month-<1/week)	Frequent (≥1/week)
N (%)	197 (28.5)	202 (29.2)	292 (42.3)	225 (23.8)	269 (28.5)	451 (47.7)
Median intake (serv/week)	0	0.5	3.2	0	0.5	3.5
Age (y)	64.12 (± 8.14)	63.5 (± 8.4)	61.4 (± 9.0)	51.0 (± 5.8)	47.6 (± 5.5)	46.4 (± 5.6)
Women (%)	139 (70.6)	131 (64.9)	129 (44.2)	156 (69.3)	156 (58.0)	128 (28.4)
Current smoker (%)	6 (3.05)	6 (3.0)	18 (6.2)	10 (4.4)	4 (4.5)	30 (6.7)
Physical activity score (METs/ day)	35.4 (5.7)	35.9 (5.9)	35.7 (5.6)	34.3 (5.4)	35.0 (6.4)	34.3 (7.9)
BMI (kg/m <sup>2</sup> )	28.4 (± 5.3)	27.6 (± 4.7)	28.3 (± 4.9)	27.2 (± 5.6)	27.2 (± 4.9)	27.4 (± 4.7)
Daily energy intake (kcal/day)	1594.1 (606.7)	1688.3 (689.4)	1981.4 (737.6)	1834.2 (573.5)	1814.4 (693.3)	2114.4 (911.1)
Saturated fatty acids (% energy)	19.5 (7.7)	20.1 (10.4)	24.1 (11.5)	19.9 (10.5)	21.1 (9.9)	26.1 (12.9)
Whole grain (g/day)	24.3 (21.5)	22.3 (21.2)	22.3 (18.2)	32.6 (24.4)	32.9 (26.1)	29.3 (23.7)
Fruits (serv/day)	1.9 (1.3)	1.7 (1.2)	1.8 (1.5)	2.1 (1.6)	1.7 (1.4)	1.4 (1.2)
Vegetables (serv/ day)	2.7 (1.7)	2.4 (2.0)	2.4 (1.7)	2.9 (2.0)	2.3 (1.7)	2.5 (1.7)
Nuts (serv/day)	0.3 (0.5)	0.3 (0.5)	0.3 (0.5)	0.4 (0.8)	0.4 (0.6)	0.4 (0.4)
Fish (serv/day)	0.3 (0.3)	0.2 (0.3)	0.3 (0.3)	0.3 (0.2)	0.3 (0.3)	0.3 (0.2)
Diet soda (serv/day)	0.6 (1.2)	0.4 (0.8)	0.4 (0.8)	0.5 (0.8)	0.3 (0.8)	0.4 (0.6)
Coffee intake (serv/ week)	12.3 (10.5)	10.3 (12.5)	12.3 (12.0)	12.3 (10.5)	17.5 (10.5)	12.3 (10.5)
Alcohol (drinks/ week)	3.2 (5.5)	3.5 (6.0)	2.7 (6.2)	3.8 (5.5)	4.2 (5.1)	4.2 (6.1)
AHEI (no SSB)	54.8 (± 10.5)	52.9 (± 9.2)	50.3 (± 9.0)	61.0 (± 10.6)	57.4 (± 9.5)	51.4 (± 9.3)

AHEI, Alternate Healthy Eating Index; BMI, body mass index; METs, metabolic equivalents; serv, servings; SSB, sugar-sweetened beverage.

<sup>a</sup>Expressed as means (± standard deviation), median (interquartile range), or otherwise stated.

**Supplementary Table 2.** Adjusted Means of LPR Change Associated With Categories of SSB and Diet Soda Intakes in the Offspring and Third Generation Cohorts

Cohort and categories of beverage intake (servings)	Median intake (servings/week)	N	Multivariate <sup>a</sup> adjusted means of LPR change ( $\pm$ SE)	Multivariate <sup>a</sup> and BMI adjusted means of LPR change ( $\pm$ SE)
<b>SSB intake</b>				
Offspring				
Non-consumers (0-<1/month)	0	197	-0.005 ( $\pm$ 0.004)	-0.004 ( $\pm$ 0.003)
Occasional (1/month-<1/week)	0.5	202	-0.013 ( $\pm$ 0.003)	-0.013 ( $\pm$ 0.003)
Frequent ( $\geq$ 1/week)	3.2	292	-0.016 ( $\pm$ 0.003)	-0.016 ( $\pm$ 0.003)
P trend			.07	.04
Third Generation				
Non-consumers (0-<1/month)	0	225	-0.014 ( $\pm$ 0.004)	-0.011 ( $\pm$ 0.004)
Occasional (1/month-<1/week)	0.5	269	-0.016 ( $\pm$ 0.004)	-0.016 ( $\pm$ 0.003)
Frequent ( $\geq$ 1/week)	3.5	451	-0.007 ( $\pm$ 0.003)	-0.009 ( $\pm$ 0.003)
P trend			.08	.21
<b>Diet soda intake</b>				
Offspring				
Non-consumers (0-<1/month)	0	238	-0.006 ( $\pm$ 0.003)	-0.009 ( $\pm$ 0.003)
Occasional (1/month-<1/week)	0.5	132	-0.016 ( $\pm$ 0.004)	-0.017 ( $\pm$ 0.004)
Frequent ( $\geq$ 1/week)	4.5	321	-0.015 ( $\pm$ 0.003)	-0.012 ( $\pm$ 0.003)
P trend			.10	.91
Third Generation				
Non-consumers (0-<1/month)	0	371	-0.008 ( $\pm$ 0.003)	-0.011 ( $\pm$ 0.003)
Occasional (1/month-<1/week)	0.5	189	-0.008 ( $\pm$ 0.004)	-0.010 ( $\pm$ 0.004)
Frequent ( $\geq$ 1/week)	3	385	-0.016 ( $\pm$ 0.003)	-0.012 ( $\pm$ 0.003)
P trend			.04	.65

AHEI, Alternate Healthy Eating Index; BMI, body mass index; LPR, liver phantom ratio; SE, standard error; SSB, sugar-sweetened beverage.

<sup>a</sup>The models were adjusted for sex, averages of age, physical activity level, energy intake, coffee intake, AHEI (without SSB), intake of diet soda or SSB, change in current cigarette smoking status, and baseline LPR.