

Non-caloric beverages can help teens avoid excessive weight gain, study shows

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A new study published today in the [New England Journal of Medicine](#) shows that [adolescents who eliminated sugar-sweetened beverages for one year gained less weight](#) than those who didn't, shedding light on an effective intervention to help combat adolescent obesity.

This is one of the first high-quality randomized control trials to examine the link between the consumption of sugar-sweetened beverages and their direct impact on weight and [body mass index](#) (BMI), as well as how a teen's home environment impacts sugar-sweetened [beverage consumption](#) in general.

The study, led by Cara Ebbeling, PhD (associate director) and David Ludwig, MD, PhD (director), both from the New Balance Foundation [Obesity Prevention](#) Center Boston Children's Hospital, found that adolescents who received deliveries of non-caloric beverages for one year gained an average of 4 fewer pounds than their peers who continued to drink sugar-sweetened beverages. Within the two-year study, the one-year intervention also included motivational calls with parents, check-in visits with participants and written intervention messages to stop drinking sugar-sweetened beverages.

The 224 [study participants](#) were overweight or obese 9th or 10th graders who regularly drank sugary beverages. The study intervention was designed to reduce consumption of these beverages. Researchers used a novel method of intervention: delivering non-caloric beverages to participants' homes for participants and their families.

Study findings: **Sugar-sweetened beverages (SSBs) and adolescent body weight**

Weight gain <small>Mean change from baseline</small>		YEAR 1 Intervention period	YEAR 2 Follow up, no intervention
Total population	INTERVENTION GROUP	3.5 lbs (1.6 kg)	9.5 lbs (4.3 kg)
	CONTROL GROUP	7.7 lbs (3.5 kg)	11.2 lbs (5.1 kg)
Hispanic subset	INTERVENTION GROUP	-1.1 lbs (-0.5 kg)	0.7 lbs (0.3 kg)
	CONTROL GROUP	13.2 lbs (6.0 kg)	20.3 lbs (9.2 kg)

BMI increase <small>Mean change from baseline</small>		YEAR 1 Intervention period	YEAR 2 Follow up, no intervention
Total population	INTERVENTION GROUP	0.06	0.71
	CONTROL GROUP	0.63	1.0
Hispanic subset	INTERVENTION GROUP	-0.36	-0.08
	CONTROL GROUP	1.43	2.27

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During the year-long intervention, the experimental group of adolescents—who virtually eliminated consumption of sugary beverages—gained 4 fewer pounds and had essentially no BMI increase compared to the [control group](#), which continued to drink sugar-sweetened beverages regularly (although at reduced levels possibly due to local public health efforts). In addition, Hispanic adolescents showed the greatest benefit—gaining 14 fewer pounds than the control group. "No other single food product has been shown to change body weight by this amount over a year simply through its reduction," says Ludwig.

The two-year study consisted of one year of intervention and one year of follow up. While the one-year mark showed a significant difference in weight between the intervention group and the control group, the groups did not differ after the second year—which did not include an

[intervention](#). These findings suggest that teens are more likely to make healthier choices (drinking non-caloric beverages) when they are more easily available to them.

This study underscores the need for healthy choices to be more easily available to adolescents, as well as the need for more research into effective interventions among minority populations with particularly high obesity rates. "Our findings suggest that both access to non-caloric beverages and clear messages for consumers may be at the heart of behavior change. Adolescents can make healthful dietary changes with adequate support and understandable messages," says Ebbeling.

The study is part of a series in the [New England Journal of Medicine](#) that looks at the association between sugar-sweetened beverages and obesity.

The Center recently published [another study](#) in the *Journal of the American Medical Association* by the New Balance Foundation Obesity Prevention Center Boston Children's Hospital suggesting that conventional low-fat diets may not be the best for weight-loss maintenance, and that reducing intake of refined carbohydrates (so called, low-glycemic diets) provide metabolic benefits and reduced risk of heart disease.

More information: [www.nejm.org/doi/full/10.1056/ ...
ry=featured_home#Top](http://www.nejm.org/doi/full/10.1056/...ry=featured_home#Top)

Provided by Children's Hospital Boston

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