

Research shows sugary drinks do not cause weight gain

August 11 2010



New research from Queen Margaret University, Edinburgh, shows that sugary drinks, consumed in moderate quantities, do not promote weight gain, carbohydrate craving or adverse mood effects in overweight women when they do not know what they are drinking.

The study, 'Effects of sucrose drinks on macronutrient intake, body weight, and mood state in overweight women over 4 weeks', which was conducted by Marie Reid, Richard Hammersley and colleagues set out to determine the long-term effects of adding a sucrose drink to the diet of overweight women ([BMI](#) 25-30, aged 20 - 55), on dietary intake and mood. The results show that overweight women do not suffer adverse effects, such as [weight gain](#) or mood fluctuation, if they do not know whether or not they are drinking a [sugary](#) or artificially sweetened drink. Instead women took in fewer calories elsewhere in the diet, to balance

the calories in the drinks.

In a single-blind, between-subjects design, [soft drinks](#) (4 x 25cl per day; 1800 kJ sucrose sweetened versus 67 kJ aspartame sweetened) were added to the diet of overweight women (n = 53, BMI 25 - 30, age 20 - 55) for 4 weeks. Participants were split into two groups and at the beginning of each week subjects took away 28 bottles of an unidentified drink for that week (4 per day). One group received sucrose (n = 24), the other aspartame (n = 29).

Subjects were instructed to consume the specified amount (25cl) each day at specified times (11:00, 14:00, 18:00, 20:00) and to rate their mood directly after the drink in their 7 day diary. Throughout the 5 week study (week 0 baseline, weeks 1 - 4 experimental), participants were also instructed to eat, drink and exercise as usual. At screening and each subsequent week thereafter, subjects' food diaries were checked and biometric data were obtained.

Mean daily energy intake at baseline (week 0) was 9126.36 kJ (SD 306.28), so the added drinks comprised some 20% of daily energy intake (1,800 kJ). Throughout the study, it was found that the mean increase in energy intake of those taking sucrose drinks between baseline week and week 1 was only 0.5 MJ, and by week 4 participants were consuming no more energy than at baseline. Across both groups it was found that some women in both groups lost, or gained weight, but it was found that there was no consistent trend for sucrose to influence this.

These findings suggest that because it is widely believed that [sugary drinks](#) are bad and part of an unhealthy diet, people then go on to behave accordingly. The primary causes of any negative effects of sugar on food choices and mood, may be psychological, and Prof Marie Reid, Professor of Applied Psychology at Queen Margaret University concludes: "Widespread publicity about the supposed harmful effects of

sugar may make such effects more likely, as believing sugar to be harmful may encourage negative emotions after eating sugary food and lead to the abstinence violation effect. In other words, knowing that you're drinking sugary drinks, while believing that they're harmful, might result in the derailing of a generally healthy low-fat diet".

"Sugar in moderation plays a neutral role in the balanced diet, but an emotionally charged role in the psychology of food choice," she added.

The new research is published in the August issue of the journal *Appetite*, and replicates a previous study conducted by Reid in 2007, with normal weight women. The results substantiate those of the earlier study and show that women reduced their voluntary energy intake when the sucrose drinks were added to the diet. By the final week of the study, women had reduced their total energy intake back to baseline levels.

Provided by The Sugar Bureau

Citation: Research shows sugary drinks do not cause weight gain (2010, August 11) retrieved 3 May 2024 from <https://medicalxpress.com/news/2010-08-sugary-weight-gain.html>

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