

Cutting Intake of Sugar-Sweetened Drinks Lowers BP in Observational Study

Cutting back on consumption of beverages that contain added sugar can lower blood pressure, but not only because it may reduce body weight, according to a prospective cohort study that also found no influence on BP from caffeine or consumption of diet soft drinks [1]. The analysis also suggested that change in overall intake of sugar, whether added to or naturally occurring in food and drink, had an effect on BP.

The study found--in its population of >800 adults participating in a hypertension trial of dietary and behavioral interventions--that drinking one less sugar-sweetened beverage a day was independently associated with declines of about 1.2 mm Hg and 1.1 mm Hg in systolic and diastolic BP, respectively, over 18 months. The relationships remained significant after researchers further controlled for weight change.

In the current study, a third of participants cut their consumption by 1.3 servings per day over 18 months, and systolic BP dropped 1.5 mm Hg more than it did in participants who didn't change their intake of sugar-sweetened beverages. Sugar-sweetened beverages, defined as any drinks with added sucrose or high-fructose corn syrup, included "soft drinks, fruit drinks, lemonade, fruit punch, and other sweetened beverages but excluded diet drinks. Diet beverages were defined as carbonated or noncarbonated drinks that were sweetened with [noncaloric] artificial sweeteners. After a variety of potential influences on blood pressure, including body-mass index but not body weight, were controlled for, changes in sweetened beverage intake over 18 months were significantly related to changes in systolic and diastolic BP ($p < 0.001$ for both). Adding weight change to the covariates attenuated both the effect of such intake on BP and its significance, although p values remained < 0.05 , "suggesting that reducing sugar-sweetened beverage intake has a BP-lowering effect that is independent of weight loss."

References:

Chen L, Caballero B, Mitchell DC, et al. Reducing consumption of sugar-sweetened beverages is associated with reduced blood pressure. A prospective study among United States adults. *Circulation* 2010; DOI: 10.1161/CIRCULATIONAHA.109.911164. Available at: <http://circ.ahajournals.org>. Abstract