

Consumption of small amounts of dark chocolate associated with reduction in blood pressure

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Eating about 30 calories a day of dark chocolate was associated with a lowering of blood pressure, without weight gain or other adverse effects, according to a study in the July 4 issue of JAMA.

Previous research has indicated that consumption of high amounts of cocoa-containing foods can lower blood pressure (BP), believed to be due to the action of the cocoa polyphenols (a group of chemical substances found in plants, some of which, such as the flavanols, are believed to be beneficial to health). “A particular concern is that the potential BP reduction contributed by the flavanols could be offset by the high sugar, fat and calorie intake with the cocoa products,” the authors write. The effect of low cocoa intake on BP is unclear.

Dirk Taubert, M.D., Ph.D., of University Hospital of Cologne, Germany, and colleagues assessed the effects of low regular amounts of cocoa on BP. The trial, conducted between January 2005 and December 2006, included 44 adults (age 56 through 73 years; 24 women, 20 men) with untreated upper-range prehypertension (BP 130/85 – 139/89) or stage 1 hypertension (BP 140/90 – 160/100). Participants were randomly assigned to receive for 18 weeks either 6.3 g (30 calories) per day of dark chocolate containing 30 mg polyphenols or matching polyphenol-free white chocolate.

The researchers found that from baseline to 18 weeks, dark chocolate

intake reduced average systolic BP by 2.9 (1.6) mm Hg and diastolic BP by –1.9 (1.0) mm Hg without changes in body weight, plasma levels of lipids or glucose. Hypertension prevalence declined from 86 percent to 68 percent. Systolic and diastolic BP remained unchanged throughout the treatment period among those in the white chocolate group. Dark chocolate consumption resulted in the short-term appearance of cocoa phenols in plasma and increased vasodilatory S-nitrosoglutathione. There was no change in plasma biomarkers in the white chocolate group.

“Although the magnitude of the BP reduction was small, the effects are clinically noteworthy. On a population basis, it has been estimated that a 3-mm Hg reduction in systolic BP would reduce the relative risk of stroke mortality by 8 percent, of coronary artery disease mortality by 5 percent, and of all-cause mortality by 4 percent,” the authors write.

Source: JAMA and Archives Journals

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