Dietary constituents minimally attenuate sodium-BP link

5 March 2018

(HealthDay)—Other dietary components have a minimal impact on attenuating the adverse association of dietary sodium with blood pressure (BP), according to a study published online March 5 in *Hypertension*.

Jeremiah Stamler, M.D., from Northwestern University in Chicago, and colleagues examined whether the relationship between dietary sodium and BP is modulated by other dietary factors.

The researchers observed direct relations to BP for 24-hour urinary sodium excretion and the urinary sodium/potassium ratio among 4,680 men and women aged 40 to 59 years of age, with control for multiple non-dietary factors, but not body mass index. Among the 2,195 American participants, two standard deviation higher 24-hour urinary sodium excretion correlated with a 3.7 mm Hg higher systolic BP. After controlling for 13 macronutrients, 12 vitamins, seven minerals, and 18 amino acids, as well as for sex, age, race, and socioeconomic strata, these correlations persisted. Sodium-BP, but not sodium/potassium-BP, correlations were attenuated with control for body mass index. Significant positive relations to BP of urinary sodium were seen for normal-weight and obese participants; overweight individuals had weaker correlations. Potassium intake blunted the sodium-BP correlation at lower, but not higher, levels of 24-hour sodium excretion.

"These findings underscore the importance of reducing salt intake for the prevention and control of prehypertension and hypertension," the authors write.

More information: Abstract/Full Text (subscription or payment may be required)