

Is Lower Salt Intake Dangerous?

In a controversial study, low-salt diets were associated with elevated cardiovascular disease mortality.

Salt intake has been correlated directly with blood pressure (BP) in short-term intervention trials. These data inform the premise that decreased salt intake should substantially prevent cardiovascular disease (CVD). Belgian investigators tested this theory among 3681 patients without CVD (26% with hypertension) who were assessed for CVD outcomes in two European prospective cohort studies (median follow-up, 8 years).

In the overall cohort, a significant but inverse relation was noted between urinary sodium excretion and fatal or nonfatal CVD events. For example, the CVD death rate was 4.1% versus 0.8% in the lowest versus highest tertiles of sodium excretion.

Two subgroups were created. In the first subgroup, 2096 patients who were normotensive at baseline were followed for incident hypertension; no association was found between urinary sodium excretion and incident hypertension, which was roughly 26%–27% in all tertiles. In the second subgroup, 1499 patients who were not receiving antihypertensive treatment were followed to assess the association of urinary sodium excretion and BP; greater sodium excretion was associated with a significant but small increase in systolic BP.

Comment: Not unexpectedly, this study has been criticized by many investigators and for many reasons, as reported in the [May 3, 2011, New York Times](#). Two criticisms are that participants were relatively young (mean age, 40) and that the number of CVD events was relatively small. However, the results are not inconsistent with those of other studies. No clinical recommendations can be drawn from the study, but it is certainly provocative and worthy of discussion.

— [Thomas L. Schwenk, MD](#)

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