Sodium intake > 3.7 g/day linked to adverse cardiac strain

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(HealthDay)—Estimated sodium intake (ESI) above 3.7 g/day is

associated with left ventricular longitudinal strain (LS), circumferential strain, and e' velocity, according to a study published in the Aug. 8 issue of the *Journal of the American College of Cardiology*.

Senthil Selvaraj, M.D., from Harvard Medical School in Boston, and colleagues performed speckle-tracking analysis on 2,996 Hypertension Genetic Epidemiology Network study echocardiograms with available urinary sodium data. The authors examined the correlations among ESI and LS, circumferential strain, and e' velocity.

The median ESI was 3.73 g/day. The researchers found that ESI >3.7 g/day correlated with larger left atrial and left ventricular dimensions (P 3.7 g/day correlated with strain parameters and e' velocity, while ESI ≤3.7 g/day was not, after adjustment for speckle-tracking analyst, image quality, study site, age, sex, smoking status, alcohol use, daily blocks walked, diuretic use, estimated glomerular filtration rate, left ventricular mass, ejection fraction, and wall motion score index. Significant interactions were seen by potassium excretion for circumferential strain. In mediation analysis, systolic blood pressure accounted for 14 and 20 percent of the indirect effects between ESI and LS and e' velocity, respectively; serum aldosterone accounted for 19 percent of the indirect effects between ESI and LS.

"ESI >3.7 g/day is associated with adverse cardiac remodeling and worse systolic strain and diastolic e' velocity," the authors write.

One author disclosed financial ties to Merck.

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