

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 < .001). ESI >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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