Vitamin K-1 intake tied to heart structure, function in teens

October 9 2017

(HealthDay)—For adolescents, phylloquinone (vitamin K-1) intake is

associated with left ventricular (LV) structure and function, according to a study published in the October issue of *The Journal of Nutrition*.

Mary K. Douthit, from Augusta University in Georgia, and colleagues assessed diet with three to seven 24-hour recalls and physical activity by accelerometry in 766 adolescents (aged 14 to 18 years). The authors examined the correlations between phylloquinone intake and LV structure and function, assessed by echocardiography.

The researchers found that across tertiles of phylloquinone intake, there was a progressive decrease in the prevalence of LV hypertrophy. The adjusted odds ratio for LV hypertrophy was 3.3 for those in the lowest phylloquinone intake tertile compared with the highest intake tertile after adjustment for multiple confounding variables. After adjustment for the same confounding variables, there were significant linear downward trends for LV mass index and relative wall thickness across phylloquinone intake tertiles (6.5 and 9.2 percent difference, respectively, for tertile 1 versus 3). For midwall fractional shortening and ejection fraction, there were significant linear upward trends across phylloquinone intake tertiles (3.4 and 2.6 percent difference, respectively, for tertile 1 versus 3).

"Our adolescent data suggest that subclinical cardiac structure and function variables are most favorable at higher phylloquinone intakes," the authors write.

More information: Abstract
Full Text

Citation: Vitamin K-1 intake tied to heart structure, function in teens (2017, October 9) retrieved