

BPA exposure possibly linked to future heart disease

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(HealthDay) -- Healthy people exposed to higher levels of the controversial chemical bisphenol A (BPA), found in plastics, may be more likely to develop heart disease, according to a study published online Feb. 21 in *Circulation*.

David Melzer, M.B., Ph.D., of the University of Exeter in the United Kingdom, and colleagues utilized data from the European Prospective Investigation of Cancer study. Respondents (aged 40 to 74 years) free of coronary artery disease (CAD), stroke, or diabetes submitted baseline spot urine samples, and urinary BPA (uBPA) concentrations were measured.

The researchers found that uBPA concentrations were low (median



value, 1.3 ng/ml). Per each standard deviation increase in uBPA concentration (4.56 ng/ml), there was a significant association with incident CAD in models adjusted for age, sex, and urinary creatinine concentration (odds ratio [OR], 1.13; 95 percent confidence interval [CI], 1.02 to 1.24). After adjusting for CAD <u>risk factors</u>, including education, occupational social class, <u>body mass index</u> (BMI) category, systolic blood pressure, lipid concentrations, and exercise, the estimated risk was similar but narrowly missed two-sided significance (OR, 1.11; 95 percent CI, 1.00 to 1.23; P = 0.058). Sensitivity analyses conducted using the fully-adjusted model and excluding those with early CAD (30 kg/m², or abnormal renal function; or making additional adjustments for vitamin C, C-reactive protein, or alcohol consumption, all resulted in similar estimates, and all showed associations ($P \le 0.05$) compared with controls.

"Associations between higher BPA exposure (reflected in higher urinary concentrations) and incident CAD over 10 years of follow-up showed similar trends to previously reported cross-sectional findings in the more highly-exposed National Health and Nutrition Survey respondents," the authors write.

More information: Abstract

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