

ENDO: serum phthalate levels higher in obese children

June 25 2012



Serum levels of di(2-ethylhexyl) phthalate are increased in obese versus nonobese children, according to a study presented at the annual meeting of The Endocrine Society, held from June 23 to 26 in Houston.

(HealthDay) -- Serum levels of di(2-ethylhexyl) phthalate (DEHP) are increased in obese versus nonobese children, according to a study presented at the annual meeting of The Endocrine Society, held from June 23 to 26 in Houston.

Shin Hye Kim and Mi Jung Park, M.D., Ph.D., from the Inje University College of Medicine in Seoul, Korea, and colleagues examined the association between DEHP level and obesity in 204 children (105 obese cases and 99 controls; aged 6 to 13 years). Measurements of fasting glucose, insulin, aspartate aminotransferase, alanine aminotransferase (ALT), uric acid, and lipid profiles were taken. Gas chromatography/mass spectrometry was used to analyze serum DEHP levels.



The researchers found that, compared with controls, geometric mean serum DEHP levels were significantly higher in obese children. Serum DEHP level showed a significant positive correlation with body mass index, serum ALT, uric acid, and body fat mass, when controlling for potential covariates. There was no significant correlation seen between serum DEHP level and high-density lipoprotein cholesterol, triglycerides, fasting blood sugar, and fasting insulin. After adjustment for age, gender, physical activity, household income, and daily calorie intake, there was a dose-dependent increase in the risk of obesity with increasing serum DEHP quartiles (odds ratios: quartile 2, 1.25; quartile 3, 3.63; quartile 4, 5.04).

"Although this study cannot prove causality between childhood obesity and phthalate exposure, it alerts the public to recognize the possible harm and make efforts to reduce this exposure, especially in children," Park said in a statement.

More Information

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Citation: ENDO: serum phthalate levels higher in obese children (2012, June 25) retrieved 23 June 2024 from

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