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Iodine Deficiency Has Negative Impact on Child Cognition

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(HealthDay News) – Even mild iodine deficiency during pregnancy is associated with adverse child cognitive development, according to a study published online May 22 in *The Lancet*.

Sarah C. Bath, PhD, from the University of Surrey in Guildford, UK, and colleagues investigated whether mild iodine deficiency during early pregnancy had an adverse effect on child cognitive development using data from mother-child pairs from the Avon Longitudinal Study of Children and Parents. Urinary iodine concentrations were measured for stored first-trimester samples for 1,040 pregnant women. Child IQ was measured at age 8 years and reading ability at age 9 years.

The median iodine concentration was 91.1µg/L, which was classified as mild-to-moderate iodine deficiency. The researchers found that offspring of women with an iodine-to-creatinine ratio of <150µg/g were significantly more likely to have scores in the lowest quartile for verbal IQ, reading accuracy, and reading comprehension (odds ratios, 1.58, 1.69, and 1.54, respectively) compared with those of mothers with ratios of ≥150µg/g, after adjustment for confounding variables. The scores worsened with decreasing iodine-to-creatinine ratios.

"Our results show the importance of adequate iodine status during early gestation and emphasize the risk that iodine deficiency can pose to the developing infant, even in a country classified as only mildly iodine deficient," the authors write. "Iodine deficiency in pregnant women in the United Kingdom should be treated as an important public health issue that needs attention."

Abstract
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