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**Vitamin D Deficiency During Pregnancy Linked to Elevated Risk of ADHD in Offspring**

Vitamin D deficiency during pregnancy appears to be associated with an increased risk of attention-deficit/hyperactivity disorder (ADHD) in offspring, according to a study published in the *Journal of American Academy of Child and Adolescent Psychiatry*.

The study is the first population-level research to demonstrate an association between low maternal vitamin D level in early to mid-pregnancy and an elevated risk for diagnosed ADHD in the offspring.

In the nationwide case-control study, 1,067 ADHD cases and 1,067 matched controls were identified from Finnish registers. Maternal pregnancy 25-hydroxyvitamin D [25(OH)D] levels were measured using quantitative immunoassay from maternal sera, collected during the first trimester and archived in the national biobank.

Results showed a significant association between decreasing log-transformed maternal 25(OH)D levels and offspring ADHD both in the unadjusted analyses (odds ratio [OR] = 1.65; 95% confidence interval [CI], 1.33-2.05; *P*< .001) and in the analyses adjusting for maternal socioeconomic status and age (OR = 1.45; 95% CI, 1.15-1.81; *P* = .002).

Analyses by quintiles of maternal 25(OH)D levels in the lowest versus highest quintile revealed an adjusted odds ratio for offspring ADHD of 1.53 (95% CI, 1.11-2.12; *P* = .010).

Andre Sourander, University of Turku, Turku, Finland, said that despite these recommendations, vitamin D deficiency is still a global problem.

“This study demonstrated an association between low maternal 25(OH)D during pregnancy and an elevated risk for offspring ADHD,” the authors wrote. “If replicated in independent samples, this finding may have significant public health implications.”

The study is part of a larger research project that aims to discover the connections between the mother’s health during pregnancy and ADHD in offspring. The goal is to produce information for developing preventative treatments and measures for identifying children with ADHD risk.

Reference: [https://jaacap.org/article/S0890-8567(19)32232-4/fulltext](https://jaacap.org/article/S0890-8567%2819%2932232-4/fulltext)

SOURCE: University of Turku