

Hypertensive disorders of pregnancy tied to child neurodevelopment

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(HealthDay)—Hypertensive disorders of pregnancy (HDP) are

associated with modestly increased risks for autism spectrum disorders (ASDs) and possibly attention-deficit/hyperactivity disorder (ADHD) in offspring, according to a study published online March 22 in *JAMA Pediatrics*.

Judith S. Brand, Ph.D., from Örebro University in Sweden, and colleagues used data from the Medical Birth Register, as well as two cohorts—a birth [cohort](#) of 1,085,024 individuals born between 1987 and 1996 and followed through 2014 and 285,901 men born between 1982 and 1992 who attended assessments for military conscription—to assess the relationship between HDP and neurodevelopmental outcomes in [offspring](#).

The researchers found that the prevalence of maternal HDP was 4 percent in the [birth cohort](#) and 5.1 percent in the military conscription cohort, while 15,858 participants received a diagnosis of ASD, 36,852 a diagnosis of ADHD, and 8,454 a diagnosis of intellectual disability (ID). In whole-cohort analyses, HDP were associated with offspring ASDs (hazard ratio [HR], 1.22; 95 percent confidence interval [CI], 1.13 to 1.31), ADHD (HR, 1.10; 95 percent CI, 1.05 to 1.16), and ID (HR, 1.39; 95 percent CI, 1.27 to 1.53). Though less statistically powered, analyses suggested similar estimates for ASDs (HR, 1.19; 95 percent CI, 1.00 to 1.42) and possibly ADHD (HR, 1.09; 95 percent CI, 0.95 to 1.24), but not for ID (HR, 1.04; 95 percent CI, 0.83 to 1.29), when comparing siblings discordant for HDP. Additionally, HDP were associated with somewhat lower cognitive scores in the whole-cohort analysis (mean difference comparing offspring exposed with those unexposed, -0.10 ; 95 percent CI, -0.13 to -0.07), but when comparing siblings, the association was null (mean difference, 0.00; 95 percent CI, -0.09 to 0.08).

"The study results suggest that HDP are associated with small increased risks of ASDs and possibly ADHD in offspring, whereas associations

with ID and cognitive performance are likely confounded by shared familial (environmental or genetic) factors," the authors write.

One author disclosed financial ties to the pharmaceutical industry.

More information: [Abstract/Full Text](#)

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