

Maternal hypertensive disorders may lead to mental health disorders in children

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Hypertensive pregnancy disorders, especially preeclampsia, a form of high blood pressure during pregnancy, may lead to adverse mental health conditions in children, according to new research published today in *Hypertension*, an American Heart Association journal.

A Finnish study of 4,743 [mother-child pairs](#) found associations between hypertensive pregnancy disorders—including chronic hypertension ([high blood pressure](#)), gestational hypertension, preeclampsia and eclampsia—and childhood mental disorders. Preeclampsia is a common pregnancy complication often characterized by high blood pressure and protein in the urine, which indicates damage to other organs including the liver and kidneys. Eclampsia is a severe complication of preeclampsia in which high blood pressure during pregnancy results in seizures.

Maternal preeclampsia and its severity were associated with an increase in the risk of any childhood [mental disorder](#) and psychological development and behavioral and emotional disorders in the offspring.

Researchers found:

- a 66% higher risk of mental disorders among children whose mothers had preeclampsia; and
- a two-fold higher risk of childhood mental issues among children whose mothers had severe preeclampsia.

"While previous studies have shown significant effects of preeclampsia on ADHD, [autism spectrum disorder](#) and schizophrenia in the offspring, a novel aspect of our findings was that the predisposing effects of maternal preeclampsia extended to any childhood mental disorder in the offspring," said Marius Lahti-Pulkkinen, one of the senior researchers of the study, Ph.D. a docent at the University of Helsinki in Helsinki, Finland.

Researchers also noted that the combination of maternal hypertensive disorders, overweight/obesity and diabetes disorders in pregnancy increase the cumulative incidence of childhood mental disorders from 6.6% among offspring of mothers with none of those conditions to 22.2% in offspring exposed to all of these three adverse maternal conditions.

The associations of maternal preeclampsia with offspring childhood mental disorders are not explained by maternal mental disorders, age, substance use, number of previous pregnancies, education, overweight/obesity or diabetes disorders or paternal mental or hypertensive disorders.

"The findings emphasize the need for preventive interventions and treatments for maternal hypertensive disorders, since such interventions have the potential to benefit both the well-being of the expectant mother and her offspring," he said. "The findings also shed important new light on the etiology of childhood mental disorders. This information may help in targeting preventive interventions and support for families at risk, and

aid clinicians in understanding issues and the underlying causes of childhood mental disorders."

Hypertensive pregnancy disorders are key risk factors for [maternal mortality](#), stillbirth, [preterm birth](#) and [intrauterine growth restriction](#) and they predict cardiovascular morbidity in the mother and her offspring.

More information: *Hypertension* (2020). [DOI: 10.1161/HYPERTENSIONAHA.119.14140](#)

Provided by American Heart Association

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