

# In utero SARS-CoV-2 exposure tied to neurodevelopmental sequelae

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In utero exposure to severe acute respiratory syndrome coronavirus 2

(SARS-CoV-2) is associated with increased neurodevelopmental sequelae in offspring, according to a study published online June 9 in *JAMA Network Open*.

Andrea G. Edlow, M.D., from Massachusetts General Hospital in Boston, and colleagues examined whether in utero exposure to SARS-CoV-2 is associated with risk for [neurodevelopmental disorders](#) in the first 12 months in a retrospective cohort study of live offspring of mothers who delivered between March and September 2020. Data were included for 7,772 [live births](#).

The researchers found that exposed mothers were more likely to have preterm delivery (14.4 versus 8.7 percent). In unadjusted models, the rate of neurodevelopmental diagnoses was increased with maternal SARS-CoV-2 positivity during pregnancy (odds ratio, 2.17), as well as in analyses adjusted for race, ethnicity, insurance status, offspring sex, maternal age, and preterm status (adjusted odds ratio, 1.86). Effects of larger magnitude were seen in association with third-trimester infection (adjusted odds ratio, 2.34).

"These preliminary findings suggest greater risk for adverse neurodevelopmental outcomes at 1 year among [offspring](#) exposed to SARS-CoV-2, and highlight the urgency of follow-up studies in large and representative cohorts," the authors write.

Several authors disclosed financial ties to the biopharmaceutical industry.

**More information:** Andrea G. Edlow et al, Neurodevelopmental Outcomes at 1 Year in Infants of Mothers Who Tested Positive for SARS-CoV-2 During Pregnancy, *JAMA Network Open* (2022). [DOI: 10.1001/jamanetworkopen.2022.15787](https://doi.org/10.1001/jamanetworkopen.2022.15787)

Torri D. Metz, Is It Exposure to the Pandemic or to Maternal SARS-CoV-2 Infection That Is Adversely Affecting Early Childhood Neurodevelopment?, *JAMA Network Open* (2022). [DOI: 10.1001/jamanetworkopen.2022.15793](https://doi.org/10.1001/jamanetworkopen.2022.15793)

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