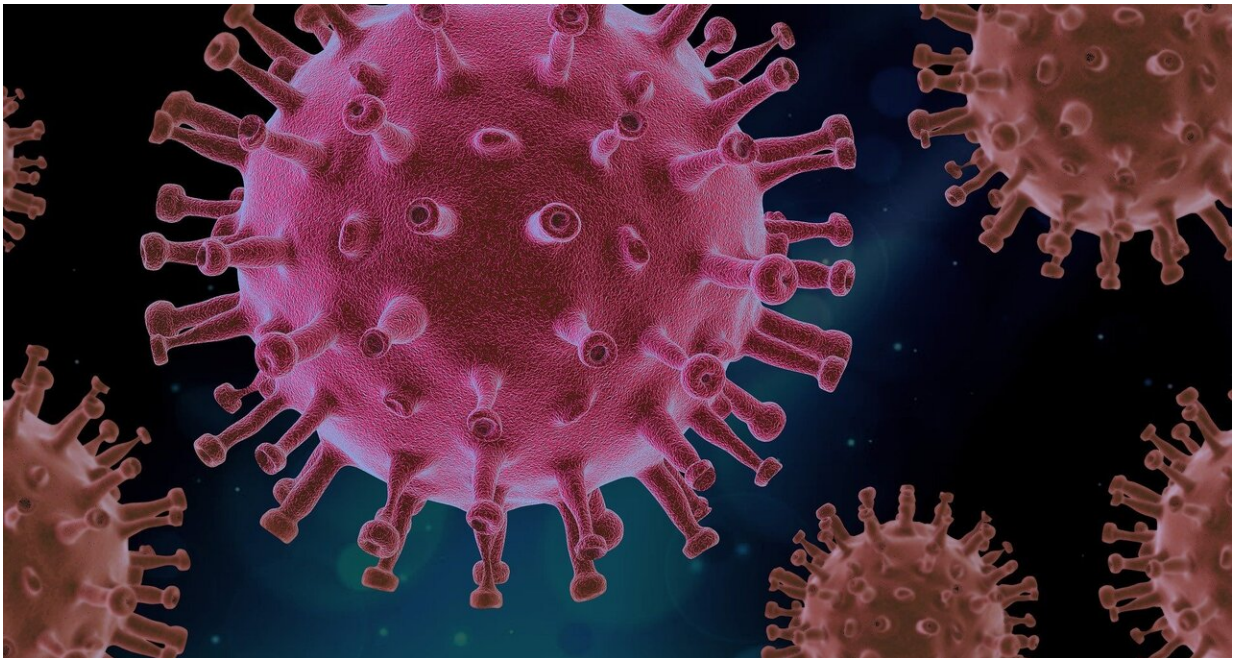


Children face risk for severe complications and death from COVID-19

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Children, teens and young adults are at greater risk for severe complications from COVID-19 than previously thought and those with underlying health conditions are at even greater risk, according to a study coauthored by a Rutgers researcher.

The study, published in *JAMA Pediatrics*, is the first to describe the

characteristics of seriously ill pediatric COVID-19 patients in North America.

"The idea that COVID-19 is sparing of [young people](#) is just false," said study coauthor Lawrence C. Kleinman, professor and vice chair for academic development and chief of the Department of Pediatrics' Division of Population Health, Quality and Implementation Science at Rutgers Robert Wood Johnson Medical School. "While children are more likely to get very sick if they have other [chronic conditions](#), including obesity, it is important to note that children without chronic illness are also at risk. Parents need to continue to take the virus seriously."

The study followed 48 children and [young adults](#)—from newborns to 21 years old—who were admitted to pediatric intensive care units (PICUs) in the United States and Canada for COVID-19 in March and April. More than 80 percent had chronic underlying conditions, such as immune suppression, obesity, diabetes, seizures or [chronic lung disease](#). Of those, 40 percent depended on technological support due to developmental delays or genetic anomalies.

More than 20 percent experienced failure of two or more organ systems due to COVID-19, and nearly 40 percent required a breathing tube and ventilator. At the end of the follow-up period, nearly 33 percent of the children were still hospitalized due to COVID-19, with three still requiring ventilator support and one on life support. Two of the children admitted during the three-week study period died.

"This study provides a baseline understanding of the early disease burden of COVID-19 in [pediatric patients](#)," said Hariprem Rajasekhar, a pediatric intensivist involved in conducting the study at Robert Wood Johnson Medical School's Department of Pediatrics. "The findings confirm that this emerging disease was already widespread in March and

that it is not universally benign among children."

The researchers said they were "cautiously encouraged" by hospital outcomes for the children studied, citing the 4.2 percent mortality rate for PICU patients compared with published mortality rates of up to 62 percent among adults admitted to ICUs, as well as lower incidences of respiratory failure.

Kleinman noted that doctors in the New York metropolitan area are seeing what appears to be a new COVID-related syndrome in children.

"Although our [data collection](#) for this study has ended, we continue to develop collaborations with colleagues in our region and across the country to try to understand these more severe complications," he said, citing concerns such as heart failure and the Kawasaki disease-like condition termed pediatric multi-system inflammatory syndrome as examples.

More information: Characteristics and Outcomes of Children With Coronavirus Disease 2019 (COVID-19) Infection Admitted to US and Canadian Pediatric Intensive Care Units, *JAMA Pediatrics* (2020). [DOI: 10.1001/jamapediatrics.2020.1948](https://doi.org/10.1001/jamapediatrics.2020.1948) , jamanetwork.com/journals/jamap.../fullarticle/2766037

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