



## Study: Household COVID-19 infection rarely starts with children

by Melissa Jenco, News Content Editor

**Editor's note:** For the latest news on COVID-19, visit <https://www.aappublications.org/news/2020/01/28/coronavirus>.

Children with COVID-19 were rarely the source of infections in their household, according to a new study.

Researchers analyzed data on 39 children under age 16 in Switzerland who tested positive via reverse transcription polymerase chain reaction from March 10, 2020, to April 10, 2020.

About three-quarters of the children had been healthy. Among the others, asthma and diabetes were the most common comorbidities. About 82% of the COVID-19 cases were managed with outpatient care and symptoms resolved for all within a week of being diagnosed, according to "COVID-19 in Children and the Dynamics of Infection in Families," (Posfay-Barbe KM, et al. *Pediatrics*. May 26, 2020, <https://doi.org/10.1542/peds.2020-1576>).

When researchers followed up with patients' families, they found that in 79% of the cases an adult in the household had a suspected or confirmed case of COVID-19 before the child, "confirming that children are infected mainly inside familial clusters," according to the study. Children developed symptoms first in about 8% of households, but authors said their "study design cannot confirm that child-to-adult transmission occurred."

Authors also found 85% of adults in the home developed symptoms at some point compared to 43% of the patients' siblings. They noted about one-third of household contacts tested negative despite having symptoms and an infected family member, so cases may be underreported.

The study is in line with [another published in \*Pediatrics\*](#) earlier this month in which 96% of the children with COVID-19 lived with adults who were infected first.

In a [related commentary](#), Benjamin Lee, M.D, FAAP, and William V. Raszka Jr., M.D., FAAP, cited a study in France, which found an infected student did not appear to infect 80 classmates with whom he had contact. In Australia, infections among nine students and nine staff across 15 schools led to just two secondary infections, both in students.

Because children's COVID-19 cases typically are mild, they may not be coughing as often or as hard, according to the commentary's authors, who are members of the AAP Section on Infectious Diseases. While it is possible school closings reduced children's chances of infections outside their home, the available data and mathematical models suggest schools may not be a significant driver of infections, the authors said.

"Serious consideration should be paid towards strategies that allow schools to remain open, even during periods of COVID-19 spread," they wrote. "In doing so, we could potentially minimize the potentially profound adverse social, developmental and health costs that our children will continue to suffer until an effective treatment or vaccine can be developed and distributed, or failing that, until we reach herd immunity."

### Resources

- [AAP guidance on resuming in-person education](#)
- [CDC guidance on operating schools and child care programs](#)



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# AAP News

- [CDC COVID-19 website for health care professionals](#)
- [Information about COVID-19 from the AAP Red Book](#)
- [Information about COVID-19 from the AAP](#)
- [Information for parents from HealthyChildren.org on COVID-19](#)