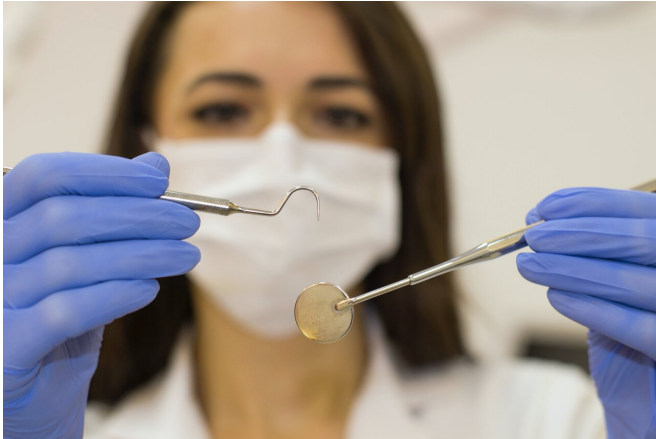


Study shows 2% of asymptomatic pediatric dental patients test positive for COVID-19

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A study by a University of Illinois Chicago pediatric dentist has shown a novel way to track potential COVID-19 cases—testing children who visit the dentist. The study also showed an over 2% positivity rate for the asymptomatic children tested.

Dr. Flavia Lamberghini, UIC clinical assistant professor in the department of pediatric dentistry, has co-authored the article, "Severe acute respiratory syndrome [coronavirus](#) 2 infection in asymptomatic pediatric dental patients," in the April 2021 issue of the *Journal of the American Dental Association*. Co-authors are Dr. Fernando Testai, UIC professor of neurology and rehabilitation, and Dr. Gabriela Trifan, UIC assistant professor of neurology and rehabilitation.

The study looked at [pediatric patients](#) who visited UIC dental clinics for emergency dental procedures from April 1 to Aug. 1, 2020. Children with COVID-19 are typically asymptomatic but have the potential to carry substantial viral loads and be a source of infection. The patients were screened over the phone prior to their scheduled visits and

were asymptomatic when they arrived for their appointments. They were given a [polymerase chain reaction](#), or PCR, test for SARS-CoV-2 infection at their visit, Lamberghini said.

"The kids tolerated the test just fine. We were trained by a pediatrician on how to conduct the test. We used the nasal swab. We told the kids, 'We are putting a butterfly in your nose,'" Lamberghini said.

The patients, between the ages of 2 to 18, with a median age of 6, were tested. Sociodemographic characteristics were abstracted, and positivity rates were calculated. With the sample size of 921 patients, the overall SARS-CoV-2 positivity rate was 2.3%. Positivity rates were statistically higher for Latino patients (3.1%), and 63% of the [children](#) studied were Latino.

Lamberghini notes the study did not extend to include variables, and questions about social distancing and exposure to the virus were not asked. However, when a child tested positive for COVID-19, researchers followed up with the child's pediatrician and caregivers and encouraged them to follow recommended advice.

"For most of them, it was a surprise to learn their child tested positive. It was good for families to know because these kids can transmit the virus, especially in communities where extended families tend to live together," Lamberghini said.

It's also important information for the oral health care providers as well, she added.

"As dentists, we are more exposed to the COVID-19 disease because we work close to the mouth, and our tools generate aerosols that can infect the dentist and dental assistant—whoever is around," Lamberghini said.

Prior to the study, children receiving dental procedures were not required to undergo PCR

tests. The study concluded that PCR testing for COVID-19 of asymptomatic patients in pediatric dentistry adds value to the use of screening questionnaires for the identification of infected people who could be contagious.

The study, the first to look at the prevalence of COVID-19 in pediatric dentistry, also serves as a reference for pediatric dentists who closed during the pandemic and are considering reopening, Testai said.

"Despite these children being COVID-positive, we did not observe transmission to clinic staff, supporting the notion that personal protective equipment works," Testai said.

More information: Flavia Lamberghini et al, Severe acute respiratory syndrome coronavirus 2 infection in asymptomatic pediatric dental patients, *The Journal of the American Dental Association* (2021). [DOI: 10.1016/j.adaj.2021.01.006](https://doi.org/10.1016/j.adaj.2021.01.006)

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