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Here's what we know about kids and long covid

Children who contract covid-19 can have symptoms that persist for weeks or even months, but it's not clear how frequently this occurs or which kids are at risk.

by **Cassandra Willyard**

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When it comes to covid, kids have largely been spared. They can get infected and spread the virus, but they have little risk of becoming seriously ill or dying. Yet, just like adults, they can have symptoms that persist well beyond the initial infection. This condition, officially known as post-

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It needs to be taken seriously, says Alok Patel, a pediatrician at Lucile Packard Children's Hospital Stanford. "Even though even though covid itself—the acute infection—presented less severe in

children, long covid is very debilitating, isolating and scary for families.”

Why are we talking about this now?

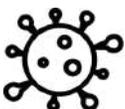
Vaccination is changing the demographics of the pandemic. As more adults get vaccinated, kids and young adults represent a growing proportion of cases. The absolute number of cases among children is still lower than it was at the height of the pandemic, but the infection rates in children have not fallen as fast as they have in adults.

That makes sense. With the virus still circulating, “it's going to hit the people that are most vulnerable, which are the people that haven't been vaccinated,” Sean O'Leary, vice chair of the AAP's Committee on Infectious Diseases told NPR. Kids under 12 aren't yet eligible for vaccination, and younger people who can get the shot have some of the lowest vaccination rates in the United States. “There has been a lot of focus on these post-covid symptoms in adults,” says Patel. But “we haven't had the type of robust data we really need in the pediatric population.” That's slowly starting to change.

How common is long covid in kids?

That's the problem—we just don't know. “There's just a dearth of good, peer-reviewed published medical literature on this topic,” says Alicia Johnston, an infectious disease specialist and head of the new post-covid clinic at Boston Children's Hospital. And the handful of studies that do exist report wildly different rates.

For example, researchers in Italy surveyed caregivers of 109 kids who had been infected and found that 42% of the children had at least one symptom two months after their diagnosis. Four months out, the number dropped to 27%.



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But data from the UK's Office of National Statistics suggest that just 10-13% of kids who test positive for covid have symptoms more for than five weeks. And 7-8% have symptoms beyond 12 weeks. That matches an Australian study, which examined 151 young children with covid and found that 8% still reported symptoms three to six months after infection. All of the kids have

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One non-peer reviewed study tracked symptoms among more than 1,700 school-age children in the UK who tested positive for SARS-CoV-2. Of those, 4.4% had symptoms that lasted more than a

month. And only 1.8% had symptoms that persisted longer than two months.

Another [preprint paper](#) from Switzerland compared long covid symptoms in two groups of kids between the ages of 6 and 16: those who had antibodies against SARS-CoV-2 and those who didn't (and presumably had not been infected). The percentage of covid-positive children reporting at least one symptom ranged from 9% at four weeks to 4% at twelve weeks. But surprisingly, the researchers found similar rates of symptoms among those who tested negative for antibodies.

What causes long covid?

Researchers don't know why symptoms persist in some children and adults. These lingering effects could be the result of organ damage caused by the virus. Or perhaps viral proteins left in the body are triggering chronic inflammation. Some scientists speculate that there may be virus still replicating at very low levels. What we do know is that lingering symptoms aren't unique to covid. Other viruses can cause post-infection syndromes too. But it's often difficult to tease out whether the symptoms are directly caused by covid or whether they're indirectly related, Patel says. Pandemic-related stress and societal changes such as school closures and social distancing can have profound impacts on kids' mental health.

What are the symptoms?

Long covid symptoms in kids mirror those seen in adults: fatigue, muscle and joint pain, headache, loss of taste or smell, respiratory problems, chest tightness or pain, and heart palpitations. "We've seen a number of kids who are complaining of just really persistent ongoing headaches, brain fog, and concentration issues," says Johnston.

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Who is at risk?

Again, researchers don't have good answers. Some data suggest that older kids are at greater risk of developing long covid than younger kids. But other risk factors remain elusive. For example, there's no compelling evidence that the severity of the initial illness affects risk. "Many of the kids who are complaining of long covid either had very mild disease or they were completely asymptomatic," Johnston says.

There's also no clear link to underlying conditions that might predispose someone to develop long covid. If doctors knew which kids had the highest risk "perhaps there's something preventative that we could do," Johnston says. "Some of these

There's no test for long covid. Doctors listen to a patient's history, document their symptoms, and assess whether they were previously infected with SARS-CoV-2 to make a clinical diagnosis. And since nobody knows what causes long covid, doctors can't cure it. The best they can do is treat the symptoms. A handful of clinics have created special long covid units specifically aimed at treating children with the condition.

Will vaccination curb long covid symptoms?

Possibly. There have been many anecdotal reports suggesting that vaccination can help. And a survey of 900 people in the UK found that vaccination improved the severity of symptoms in 57% of participants. (Just under 7% experienced a worsening of their symptoms.) Some immunologists hypothesize that the vaccines might be able to eliminate any remaining virus or viral detritus. But there is no data yet specific to children. **T**

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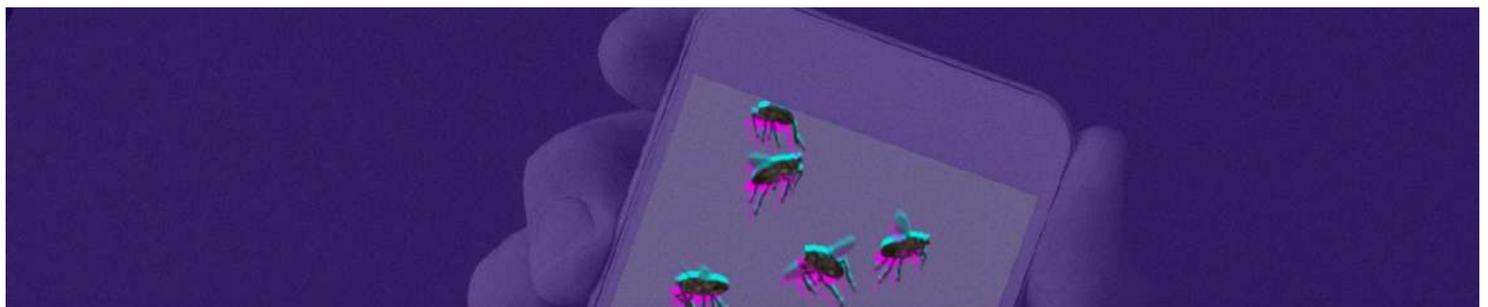
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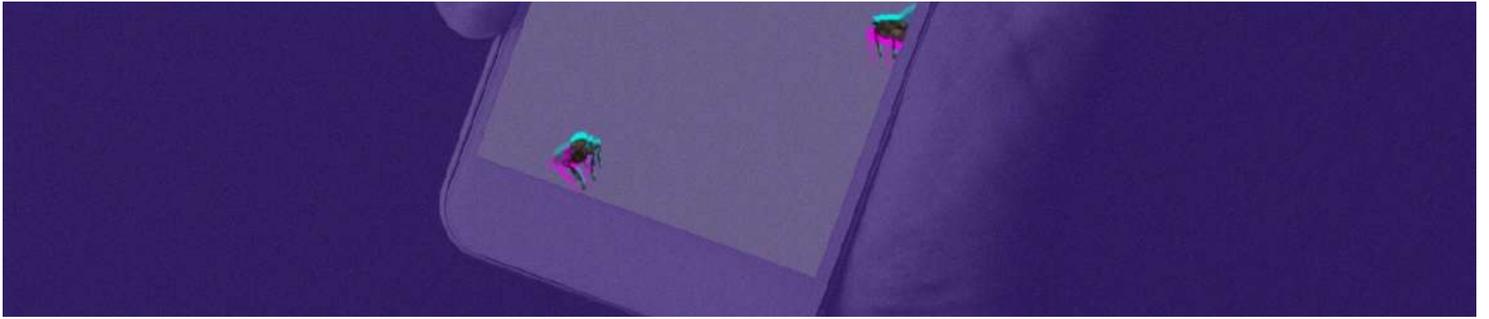
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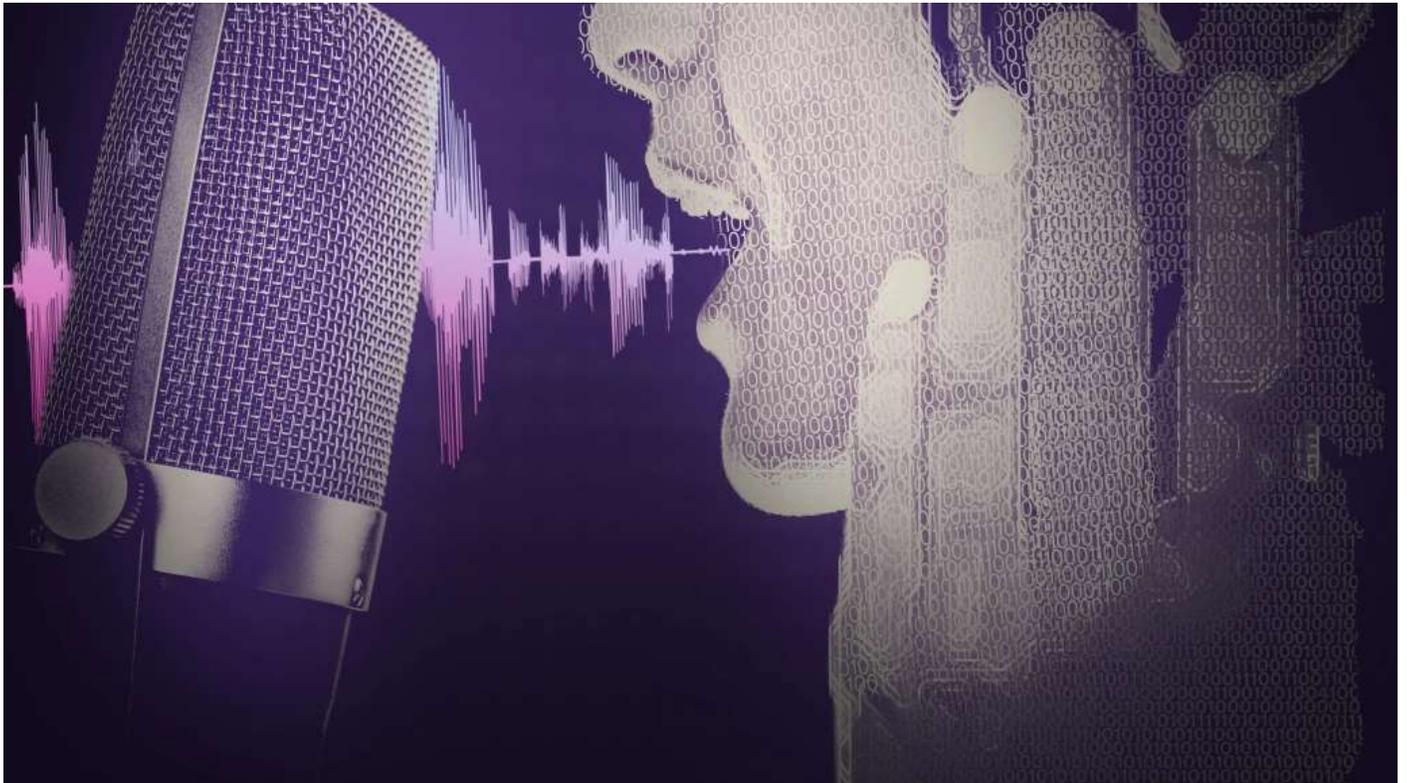
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