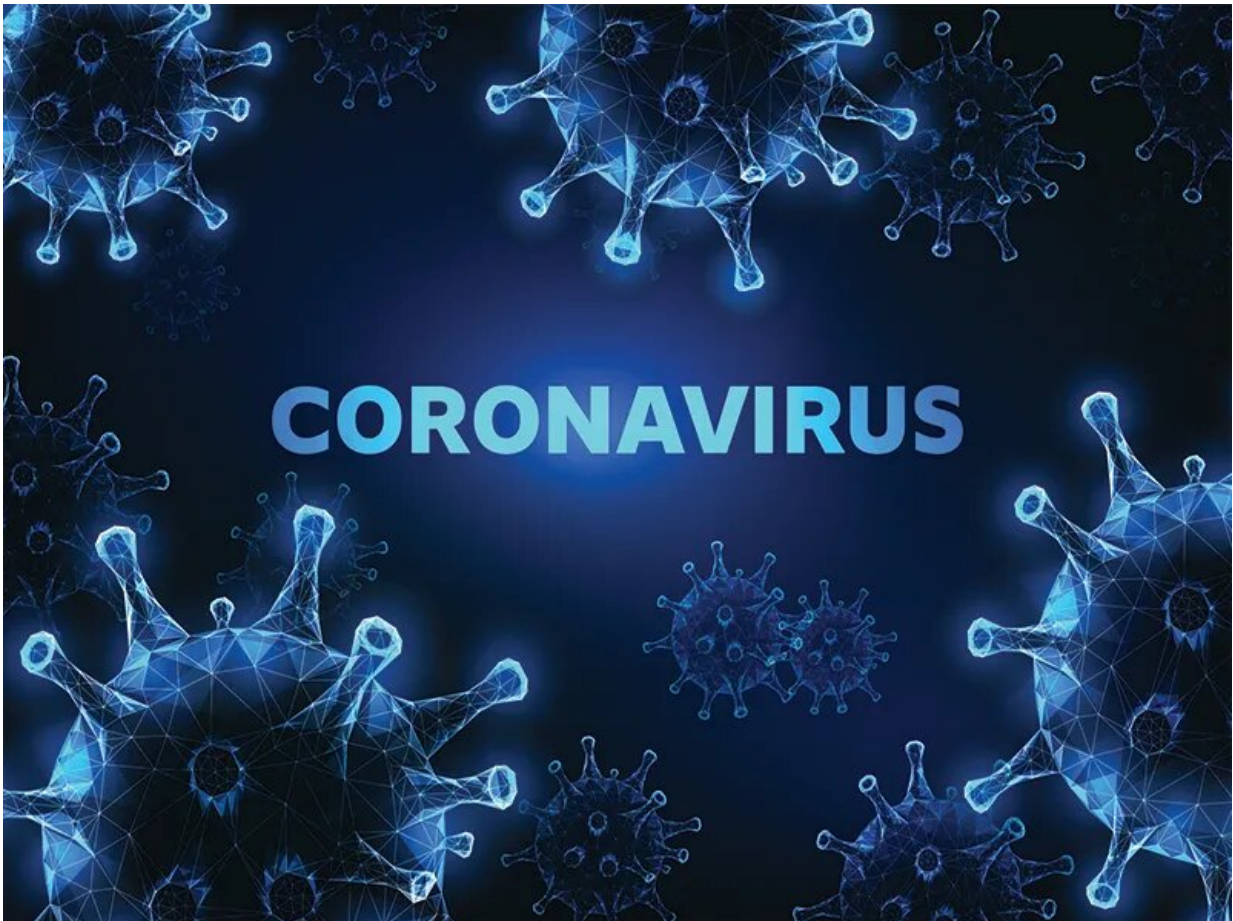


Coronavirus found in human feces up to 7 months after infection

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COVID-19 is mainly known as a respiratory ailment, but a new study

suggests the coronavirus can infect your intestinal tract for weeks and months after you've cleared the bug from your lungs.

In the study about 1 out of 7 COVID patients continued to shed the virus' genetic remnants in their feces at least four months after their initial diagnosis, long after they've stopped shedding the virus from their [respiratory tract](#), researchers found.

This could explain why some COVID patients develop GI symptoms like abdominal pain, nausea, vomiting and diarrhea, said senior researcher Dr. Ami Bhatt, an associate professor of medicine and genetics at Stanford University.

"We found that people who had cleared their [respiratory infection](#)—meaning they were no longer testing positive for SARS-CoV-2 in their respiratory tract—were continuing to shed SARS-CoV-2 RNA in their feces," Bhatt said. "And those people in particular had a high incidence of GI symptoms."

A long-term infection of the gut also might contribute to [long COVID symptoms](#) in some people, Bhatt and her colleagues theorized.

"Long COVID could be the consequence of ongoing immune reaction to SARS-CoV-2, but it also could be that we have people who have persistent infections that are hiding out in niches other than the respiratory tract, like the GI tract," Bhatt said.

For this study, the research team took advantage of an early clinical trial launched in May 2020 at Stanford to test a possible treatment for mild COVID infection. More than 110 patients were monitored to follow the evolution of their symptoms, and regular fecal samples were collected as part of an effort to track their viral shedding.

Many other studies have focused on viral shedding in patients with [severe cases of COVID](#), but this is the first to assess the presence of viral RNA in fecal samples collected from people with mild to moderate COVID, researchers said.

About half of the patients (49%) had COVID RNA remnants in their stool within the first week after diagnosis, researchers found.

But at four months following diagnosis, when no more COVID remained in their lungs, nearly 13% of patients continued to shed viral RNA in their feces.

About 4% still were shedding viral RNA in their feces seven months out from their initial diagnosis, researchers found.

Bhatt was quick to note that the RNA constituted genetic remnants of the coronavirus, and not actual live virus—so it's unlikely a person's poop could be contagious.

"While there have been isolated reports of people being able to isolate live SARS-CoV-2 virus from stool, I think that that's probably much less common than being able to isolate live virus from the respiratory tract," Bhatt said. "I don't think that our study suggests that there's lots of fecal-oral transmission."

But the lingering presence of COVID in the gut does suggest one potential influence for long-haul disease, she said.

"SARS-CoV-2 might be hanging out at the gut or even other tissues for a longer period of time than it sticks around in the respiratory tract, and there it can basically continue to kind of tickle our [immune system](#) and induce some of these long-term consequences," Bhatt said.

Long COVID has become such an established problem that many major medical centers have established their own long COVID clinics to try to suss out symptoms and potential treatments, said Dr. William Schaffner, medical director of the National Foundation for Infectious Diseases.

"A very substantial proportion of individuals who recover from COVID acutely nonetheless have lingering symptoms, and they can involve an array of different organ systems," Schaffner said.

"These data add to the notion that the cells in the intestine may themselves be involved with COVID viral infection, and they could potentially be contributors to some of the symptoms—[abdominal pain](#), nausea, kind of just intestinal distress—that can be one aspect of long COVID," he said.

Bhatt said the findings also have implications for public health efforts to predict emerging COVID outbreaks by testing a community's wastewater for evidence of the virus, and Schaffner agrees.

"If, as they say, about 4% of people seven or eight months later are still excreting viral remnants in their stool, it complicates the assessment of the density of new infections in a community," Schaffner said. "It's another thing we have to take into consideration and start looking at going forward."

But Dr. Amesh Adalja, a senior scholar with the Johns Hopkins Center for Health Security, doesn't agree that such long-term shedding in stool should affect the accuracy of wastewater COVID surveillance.

"I don't think that these findings change the value of wastewater surveillance, as we've already seen its value in real life," Adalja said. "What's valuable about wastewater surveillance is the trend if it is increasing or decreasing, which isn't really impacted by this

phenomenon."

The new study appears in the online journal [Med](#).

More information: Aravind Natarajan et al, Gastrointestinal symptoms and fecal shedding of SARS-CoV-2 RNA suggest prolonged gastrointestinal infection, *Med* (2022). [DOI: 10.1016/j.medj.2022.04.001](#)

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