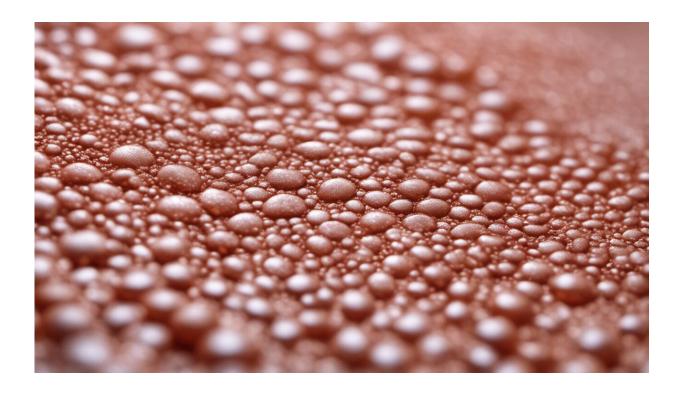


# Diarrhea, stomach ache and nausea: The many ways COVID-19 can affect your gut

September 2 2020, by Vincent Ho



Credit: AI-generated image (disclaimer)

Media reports earlier this week described a Queensland nurse with stomach pains who went on to test positive for COVID-19.

Could stomach pains be another <u>symptom</u> of COVID-19? And if you have stomach pains, should you get tested?



Although we might think of COVID-19 as a respiratory disease, we know it involves the gut. In fact SARS-CoV-2, the virus that causes COVID-19, enters our cells by latching onto protein receptors called ACE2. And the greatest numbers of ACE2 receptors are in the cells that line the gut.

COVID-19 patients with gut symptoms are also more likely to develop severe disease. That's partly because even after the virus has been cleared from the respiratory system, it can <u>persist</u> in the gut of some patients for several days. That leads to a high level of virus and longer-lasting disease.

We also suspect the virus can be transmitted via the fecal-oral route. In other words, the virus can be shed in someone's poo, and then transmitted to someone else if they handle it and touch their mouth.

## What type of gut symptoms are we talking about?

A <u>review</u> of more than 25,000 COVID-19 patients found about 18% had <u>gastrointestinal symptoms</u>. The most common was diarrhea followed by nausea and vomiting. Abdominal pain was considered rare. In <u>another study</u> only about 2% of COVID-19 patients had abdominal pain.

Some people believe COVID-19 causes abdominal pain through <u>inflammation</u> of the <u>nerves of the gut</u>. This is a similar way to how gastroenteritis (gastro) causes abdominal pain.

<u>Another explanation</u> for the pain is that COVID-19 can lead to a sudden loss of blood supply to abdominal organs, such as the kidneys, resulting in tissue death (infarction).

## Are gut symptoms recognized?



The <u>US Centers for Disease Control</u> has added diarrhea, nausea and vomiting to its list of recognized COVID-19 symptoms.

However, the <u>World Health Organization</u> still only lists diarrhea as a gastrointestinal COVID-19 symptom.

In Australia, nausea, diarrhea and vomiting <u>are listed</u> as other COVID-19 symptoms, alongside the classic ones (which include fever, cough, sore throat and shortness of breath). But abdominal <u>pain</u> is not listed.

Advice of symptoms that warrant testing may vary across different states and territories.

## How likely is it?

Doctors often use the concept of <u>pre-test probability</u> when working out if someone has a particular disease. This is the chance a person has the disease before we know the test result.

What makes it difficult to determine the pre-test probability for COVID-19 is we don't know how many people in the community truly have the disease.

We do know, however, COVID-19 in Australia is <u>much less common</u> than in many other countries. This affects the way we view symptoms that aren't typically associated with COVID-19.

It's far more common for people's <u>abdominal pain</u> to be caused by something other than COVID-19. For example, about a <u>quarter of people</u> at some point in their lives are known to suffer from dyspepsia (<u>discomfort or pain</u> in the upper abdomen). But the vast majority of people with dyspepsia do not have COVID-19.



Similarly, irritable bowl syndrome affects <u>about 9% of Australians</u>, and causes diarrhea. Again, the vast majority of people with <u>irritable bowel syndrome</u> do not have COVID-19.

#### So how about this latest case?

In the Queensland case, we know the nurse was <u>worried</u> he could have had COVID-19 because he was in close contact with COVID-19 patients.

As he seemed otherwise healthy before developing new abdominal symptoms, and considering he <u>worked on a COVID ward</u>, his pre-test probability was high. Doctors call this a "high index of suspicion" when there is a strong possibility someone may have symptoms due to a <u>disease</u> such as COVID-19.

#### What does this mean for me?

If you have new gastrointestinal symptoms *and* you've potentially been in contact with someone with COVID-19 *or* if you also have other classic COVID-19 symptoms (fever, cough, shortness of breath and sore throat) you should definitely get tested.

If you have just gastrointestinal symptoms, you may need to get tested if you're in a "hotspot" area, or work in a high-risk occupation or industry.

If you have gastrointestinal symptoms alone, without any of these additional risk factors, there is no strong evidence to support testing.

However, if COVID-19 becomes even more common in the community, these symptoms now regarded as uncommon for COVID-19 will become more common.



If you have concerns about any gastrointestinal symptoms, seeing your GP would be sensible. Your GP will provide a balanced assessment based on your medical history and risk profile.

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