

# Opinion: Could probiotics help fight off COVID-19?

January 31 2022, by Paul Gill

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Credit: AI-generated image ([disclaimer](#))

You've probably heard of probiotics—the "[good bacteria](#)" that can [benefit our health](#). We consume them in an expanding variety of ways, often in foods marketed as being healthy. These bacteria can be contained in supplement capsules, yogurts, drinks or even snack bars.

They work by helping prevent other, disease-causing bacteria from [infecting our gut](#). They may also interact with our [gut's immune cells](#), helping regulate the cells' activity in the complex gut environment, which is important for preventing unwanted inflammation that can trigger inflammatory bowel disease. [Research](#) has also shown that the effects of probiotics may go beyond the gut, regulating immune responses in the lungs as well.

Right now, our immune systems face the constant threat of having to fight off the coronavirus, with it circulating at [record levels](#) around the world since the emergence of the highly infectious omicron variant. There are limited treatments available for people that get seriously ill, and current vaccines [aren't highly effective](#) at preventing infection in people that haven't recently taken a booster.

But if probiotics positively affect our [immune system](#), and their effects are not limited to the gut, could they offer a cheap and accessible way of helping our bodies fight off COVID?

## **Bacteria lead to quicker recovery**

[A recent trial](#) conducted in Mexico showed that people with the coronavirus who took a specific combination of four [probiotic bacterial strains](#) recovered quicker compared to those who took a placebo. Those given probiotics also had increased antibody responses to the virus that peaked earlier than the placebo group's.

Importantly, those taking the probiotics had lesser symptoms and lower amounts of the virus in their bodies 15 days after their initial infection compared to people taking the placebo.

These encouraging results are some of the first to show that probiotics could help our immune system fight off COVID. The authors suggest

that [probiotic](#) supplementation could help people recover quicker. This could reduce the self-isolation periods currently imposed on infected people in numerous countries throughout the world.

That said, we need to be careful interpreting these results. Despite being a [double-blind](#), placebo-controlled clinical trial (generally regarded as the gold standard for testing medical treatments), it had some limitations. It excluded those over the age of 60 and didn't account for vaccination status of the trial participants. This means we don't yet know if probiotics provide any benefit to those who are most at risk of developing severe COVID.

In addition, taking probiotics may be inappropriate for those with a weakened immune system. This is due to a potential [increased risk of infection](#) resulting from consuming large quantities of live bacteria.

## **An axis of immunity**

Research has uncovered a potential positive effect—but can we explain why this happens? How is it that bacteria that arrive in our gut end up helping the [immune response](#) against COVID up in the lungs?

Immunologists think they have an answer. They've proposed the idea of a [gut-lung immune axis](#). The theory is that immune cells exposed to probiotics in the gut could be activated by these bacteria and then travel to the lung upon infection. In COVID, these would be B cells—the white blood cells that produce antibodies. They could be "primed" in the gut to go on to produce more antibodies when they encounter the virus in the lung or nose.

However, before probiotics can be properly considered for treating COVID, more studies are needed to validate these results. Clinical trials using probiotics to treat disease often produce [varying results](#), as the

effects of probiotic bacteria on immune cells may be highly specific to the bacteria used. Trials must also be performed in different groups of people to see what effect the bacteria have, as we know that COVID is more severe in some than others. [Ethnicity](#) has been associated with COVID mortality, for example.

Certainly, there's no direct evidence currently that the probiotic bacterial strains contained in a store-bought probiotic yogurt would have the same effect as the probiotics tested in the Mexican study. It's also important to remember that not all the probiotic bacteria contained in foods may be live by the time they are consumed, which could affect their potency.

## **What to eat now**

While the evidence on probiotics is being gathered, in the meantime another way to look after your gut bacteria is to eat a healthy fiber-rich diet. The latest research shows that those who consume a healthy diet high in fruits and vegetables are [less likely](#) to develop severe COVID. A high-fiber diet that stimulates the gut bacteria may even help your immune system to generate a [stronger response](#) to COVID vaccination.

As COVID will likely remain highly prevalent in the world for the foreseeable future, probiotics have the potential to become a useful tool in our fight against the disease. However, before we all run out to our local health food store to stock up, we need to wait for research to confirm what types of probiotic [bacteria](#) could help our immune system and who would most benefit from consuming them.

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