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For more information on the novel coronavirus and Covid-19, visit [cdc.gov](https://www.cdc.gov).

The Truth About Vitamin D, Zinc, and Other Coronavirus Rumors

What might work, what probably doesn't, and what's flat-out wrong

Dana G Smith
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There's a lot of [misinformation](#) and half-truths going around right now about the novel [coronavirus](#). That's understandable — the virus is very new and doctors and scientists are still learning about how the infection works and best ways to treat it. The news being reported about tests, [symptoms](#), and treatments is conflicting at times, which is confusing. Plus, everyone wants to protect themselves as best they can, so it makes sense that people will try anything to stave off the virus, proven or not.

Here, *Elemental* breaks down fact from fiction.

Will zinc supplements protect against the coronavirus?

There is no research yet on whether zinc will impact the novel [coronavirus](#), officially named SARS-CoV-2. However, zinc may interfere with the other six coronaviruses, including the original SARS and the four coronaviruses that cause the common cold.

Whether zinc can [prevent infections](#) hasn't been studied as much as its therapeutic properties. A [study from 2010](#) in cells in a dish — which, it's important to point out, are not full people — found that zinc blocked replication of the first SARS coronavirus. In humans, however, the data is conflicting. [One meta-analysis](#) of seven different studies found that zinc supplements shortened the duration of a cold, which may have been caused by either a coronavirus or a rhinovirus, by 33%. A more recent [double-blind, placebo-controlled trial](#) published by the same scientist did not see any difference in cold symptom duration between people who took zinc and those who took a placebo.

Just because you can hold your breath for 10 seconds does not mean you haven't been infected with the coronavirus.

“If there is an effect of zinc just on common colds, it's pretty modest, and there's no information at all about zinc and this particular coronavirus,” says infectious disease expert William Schaffner, MD, a professor of preventive medicine at the Vanderbilt University School of Medicine. “I'm going to repeat this again: Even if there were an effect, it's only modest. You can't take zinc supplements in lieu of doing anything else.”

Verdict: If you feel yourself getting sick, it might be worth taking zinc supplements, but they won't prevent you from getting the virus.

What about vitamin D?

Former CDC director Tom Frieden, MD, published an [opinion piece on Fox News](#) this week stating that taking vitamin D supplements could help boost the [immune system](#), an essential piece of the puzzle in terms of how serious Covid-19 can be.

[Vitamins are critical](#) to keeping the body, especially the immune system, healthy. If you are vitamin deficient, it's a good idea to take a supplement; however, very few people in the U.S. actually are deficient. The one notable exception may be vitamin D.

By [some estimates](#), nearly half of Americans are deficient in vitamin D, which humans synthesize from UV light. Now that most of us are sheltering in place, we're probably getting even less vitamin D from sun exposure than before, so in theory taking a [vitamin D supplement](#) makes sense. In his article, Frieden cites a [2017 meta-analysis](#) that reported people who took daily or weekly vitamin D reduced their risk of developing a respiratory tract infection. However, the benefit was only found in people who were vitamin D deficient; if people were not deficient, there was no benefit. It's also important to note that there has been no research on vitamin D and Covid-19, specifically.

Verdict: If you're worried about your vitamin D levels or been told by a doctor you're deficient, taking a supplement makes sense. But please don't go to your doctor asking for a test now, and taking vitamin D isn't an excuse not to be obsessive about hand-washing and adhere to social distancing.

Is it dangerous to take ibuprofen in the time of coronavirus?

Elemental has covered this [in depth elsewhere](#), but there is no published evidence that nonsteroidal anti-inflammatory drugs like ibuprofen suppress the immune system or exacerbate Covid-19.

Verdict: Either ibuprofen or acetaminophen (Tylenol) are safe and effective to alleviate pain and fever.

Can gargling with warm salt water or drinking a lot of water protect against the virus?

Gargling with warm salt water is a tried-and-true home remedy to relieve symptoms of a sore throat, but that's pretty much all it can do. It does not work as an antiviral to prevent or resolve an infection. (Also, a sore throat is not a [common symptom](#) of Covid-19.)

“If you want to gargle with salt water three times a day, fine. That will make your throat feel better, but it won't protect your throat against the virus,” Schaffner says.

Hydration is definitely important if you're sick, especially if you have a fever or diarrhea, which can cause the body to lose moisture even if you're not sweating. There's no evidence, however, that drinking water will wash the virus out of your mouth and prevent you from getting sick.

Schaffner says that on the surface, it makes sense that someone might think that if the virus has to attach itself to the cells in the back of the throat, they could drink some water and send the virus down the intestinal tract instead. But, he says, "I'm afraid it doesn't work that way. Drinking water is good because it keeps your hydration up, and that's a good thing. But it will not protect you against the virus."

Verdict: Gargle salt water if you have a sore throat to relieve your symptoms, and drink water because it's good for you and hydration is important. Neither of these acts will protect you from the coronavirus.

Will the sun kill the coronavirus with heat and UV light?

Many viruses, including the original SARS coronavirus, are destroyed by high heat (above 132 degrees Fahrenheit) and UV light. In fact, some hospitals regularly use machines emitting UV light to sanitize rooms and equipment. However, it's not yet confirmed if the novel coronavirus, SARS-CoV-2, acts in the same way. More importantly, the heat and UV rays from the sun are not strong enough to have this effect. Being outside on a sunny day will not destroy viral particles or prevent you from getting infected.

"Heat and ultraviolet light don't act rapidly enough to interrupt the transmission between people," says Schaffner. "If you're standing within three feet of me, and I breathe out the virus, by the time you breathe in the virus, even if we're in blinding sunlight, the virus has not been killed yet."

This question also leads to the debate of whether the outbreak will die down over the summer like other seasonal viruses. There is evidence that the novel coronavirus spreads faster in cold, dry conditions, so some scientists have remained optimistic that the hot, humid summer might provide some relief. However, epidemiologists like Harvard's Marc Lipsitch, DPhil, [have said the effect will be modest](#) and "not enough to stop transmission on its own."

Verdict: Although extreme heat and UV light may kill the novel coronavirus, being outside in the sun will not.

Can you self-diagnose Covid-19 by holding your breath for 10 seconds?

This is another question that Schaffner says makes sense on the surface. If you have severe Covid-19 with pneumonia, your lungs are impaired and you'll have to work harder to breathe. At that point, you probably won't be able to hold your breath for 10 seconds because you'll need to breathe more frequently to get good air in and bad air out.

But, he says, “If you’re that sick, believe me, you don’t have to do a test by holding your breath. By that time, you’ve got a fever, you’re feeling terrible, you’re having difficulty breathing, and I hope that you’re in your doctor’s office or the emergency room.”

The test will not tell you anything if you have been infected but have no symptoms or symptoms without a cough, which there are increasingly reports of early on in the course of the illness.

Verdict: Just because you can hold your breath for 10 seconds does not mean you haven’t been infected with the coronavirus.

The coronavirus outbreak is rapidly evolving. To stay informed, check the [U.S. Centers for Disease Control and Prevention](#) as well as your local health department for updates. If you’re feeling emotionally overwhelmed, reach out to the [Crisis Text Line](#).

Written by Dana G Smith: Senior Writer for Elemental @ Medium covering health, science, and the science of wellness / dsmith@medium.com



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