

# How to boost your immune system during the COVID-19 pandemic

The COVID-19 pandemic has exerted a heavy toll worldwide—especially on healthcare professionals on the front lines fighting the virus. As physicians, you are at greater risk of illness due to viral exposure and long hours caring for sick patients. Taking steps to protect yourself by boosting your immune health are absolutely warranted.

Physicians—particularly those caring for patients with COVID-19—should do what they can to strengthen their immune systems.

Unfortunately, because nearly one in three licensed physicians in the United States is older than 60 years of age, they may be particularly vulnerable to adverse outcomes from COVID-19, according to recent study.

“The coronavirus disease-19 (COVID-19) pandemic threatens to overwhelm the healthcare resources of the country, but also poses a personal hazard to healthcare workers, including physicians. Physicians are at an elevated risk of acquiring the disease through exposure to patients who may be symptomatic with the disease or its asymptomatic carriers across the spectrum of clinical specialties. Notably, the physician workforce is not only at risk of losing time spent in clinical care due to these exposures, but at a personal risk from severe disease that requires hospitalization and is associated with high morbidity and mortality. Notably, physicians 60 years of age and older are at a particularly elevated risk, with 80% of deaths in China concentrated in this age group,” wrote researchers, led by Rohan Khera, MD, MS, cardiologist, University of Texas Southwestern Medical Center, Dallas, TX.

Considering this, physicians—particularly those caring for patients with COVID-19—should do what they can to strengthen their immune systems. With that in mind, here are a few pointers on how to do so.

**Be active.** Physical activity can give your immune system a great boost in a myriad of ways. Researchers have shown that exercise improves the immune and metabolic systems. Regular exercise increases your body’s production of antibodies and T-cells, causing them to circulate more rapidly. Plus, it helps expel toxins from your body, which can energize your cells and metabolism. Regular exercise also lowers your body’s stress hormones—including adrenaline and cortisol—which gives your immune system added strength.

Even sweating is good for immune health. When you sweat, your body reacts much like it does when you have a fever. By raising your body temperature, you are helping your body kill pathogens.

According to a recent study, exercising at least 5 days/week reduced the risk of getting an upper respiratory infection by nearly 50% compared with being sedentary. This exercise regimen also made symptoms less severe—by 32% to 41%—depending on one’s physical fitness level.

Take a walk or go for a run—just be sure to keep that 6-foot distance. Go outside and garden. Watch and follow workout videos on YouTube. Lift weights in the basement. Find something to get your body moving and your immune system in tip-top shape.

Eat right. One of the keys to a healthy immune system is eating right. The gut and the immune system are inextricably and symbiotically connected. When things are right in the gut, all is well with the immune system. So, it should come as no surprise that eating healthy foods leads to a healthy microbiome, which leads to a healthy immune system that can help fight off infection faster.

The Mediterranean diet, for example, may be one of the healthiest diets in the world. In a recent study, following a Mediterranean diet plus taking a daily vitamin D supplement (400 IU) for 1 year led to small increases in the number of circulating immune cells like T-cells.

Eat healthy and whole foods when you can and try to include a “rainbow” of colors, which is a good way to ensure that you are getting key vitamins and nutrients in your diet. It is also a good idea to include fermented foods like sauerkraut, miso, yogurt, and kefir in your diet. These are prebiotic foods that “feed” the good bacteria in your gut. On the flip side, aim to limit your intake of meats, processed foods, and fried foods, which are inflammatory.

Get enough sleep. Sleep and the immune system are old friends that have been linked since time immemorial. Sleep reboots your mind and your body, so it is no surprise that it also reboots your immune system. Not getting enough sleep causes your body to increase its production of stress hormones, like cortisol and adrenaline. This elevation in stress hormones does not just keep you awake—it also puts stress on the immune system.

In one study, researchers found that getting at least 7 hours of sleep per night can make you 4 times less likely to catch a cold compared with less than 6 hours per night. In another, researchers studied sleep duration among twins. and found that the twin who got less sleep had a depressed immune system.

How much sleep you need varies according to your age? The Sleep Foundation recommends 7 to 9 hours of sleep for young adults and adults (18-64 years), and 7 to 8 hours of sleep for older adults (≥ 65 years).

### **More tips for better immune health**

Besides exercising regularly, eating right, and getting enough sleep, here are some other tips to stay healthy while you are under quarantine or actively battling COVID-19 in the nation’s

hospitals and clinics: Practice good hygiene. Follow the quarantine protocols put into effect in your city and state. Wear personal protective equipment, especially if you're working in a hospital or seeing patients suspected of infection, as directed by the CDC and other health organizations.

Keep your mind active. Read books, learn a new language, catch up on the latest in medical news and research that you may have been neglecting, or that stack of medical journals on your desk that have been collecting dust.

Spend at least 30 minutes per day outdoors. According to a recent study, people who spend at least 2 hours per week outdoors are more likely to report that they are in good health both physically and psychologically.

Stay in touch while social distancing. Get in touch with friends, family, and colleagues you may have lost touch with via phone call, email, or Skype/Facetime. This can help fight feelings of depression, helplessness, and reduce your stress levels.

Start writing that book or memoir you have always wanted to write. Sit down and put pen to paper or start typing on your laptop. Think of how interesting and important logging your daily efforts in caring for patients with COVID-19 will be to read in the future. For both yourself and others. Writing down your impressions and feelings and logging your efforts can help you process your thoughts and emotions more efficiently and reduce your stress levels.

Make sure you are up to the challenges to come, both physically and mentally, by taking steps to strengthen your immune system. Do not push yourself to the brink physically or emotionally. As physicians, you are the nation's most valuable asset in fighting this pandemic.