

Immunologist Shares Tips on How to Boost Your Immune System to Fight COVID-19

By Ryan Kelly, PhD, MBA, Innovation Lab

After years of working in immunology research and health care innovation, I have learned that it really it comes down to some commonly known, but sometimes difficult, ways to stay healthy during times like this. First and foremost, washing your hands and practicing good hygiene is paramount. This simple practice is an easy way to greatly reduce your chances of getting sick. Staying active (while practicing the right level of social distancing, of course), getting enough sleep and focusing on nutrition are also keys to staying healthy. Certain vitamins such as vitamin C, vitamin D, vitamin E and minerals like zinc are also helpful. And there are herbal supplements too including echinacea and elderberry extracts, which many people feel have benefit.

Exercise

Exercise can improve circulation and immune system function, helping your body's natural defenses detect and zero in on bugs more quickly. Being active this way also lowers stress hormones, which reduces your chances of getting sick.

According to a [recent study](#) published in the *British Journal of Sports Medicine*, of over 1,000 people surveyed, those who exercised at least 5 days a week had almost half the risk of coming down with an upper respiratory tract infection as those who were more sedentary. If they did catch one, they reported less severe symptoms. There also may be a protective benefit from the sweat in your sweat session; research shows that simply raising your body temperature may help kill germs in their tracks.

Diet

Since up to 80% our immune system resides in the gut, when we keep it healthy, we tend to be able to fight off infections faster and better. When it's not, our immune system is weaker and more susceptible to fighting off infection.

A "Mediterranean diet" rich in fruits, vegetables, whole grains and healthy fats, found in foods such as fatty fish, nuts and olive oil ensures that we get the vitamins, minerals and other antioxidants we need to help reduce inflammation and fight infection. Cooking with herbs such as garlic, ginger, rosemary, oregano and turmeric are also suggested to have anti-inflammatory properties. It's important to limit processed and fried foods where possible, all of which are more inflammatory. Remember, "Food is medicine."

Stress

Stress can wreak havoc on the immune system. When under chronic stress or anxiety, the body produces stress hormones that suppress our immune system. Studies show that people who are stressed are more likely to produce cytokines, molecules that trigger inflammation, and are twice as likely to get sick. In addition, people who are stressed are less likely to pay attention to other healthy habits, like eating right and getting enough sleep, which can negatively affect immunity.

Some studies have shown that people adhering to a daily exercise routine like walking or performing mindfulness meditation are less likely to get sick with a respiratory infection. Reaching out to family and friends by phone for now can also be a safeguard against stress.

Sleep

Getting a good night's rest is another natural immune system booster. Sleep reboots the immune system and other important bodily functions. When you're sleep-deprived, your body produces stress hormones like cortisol to keep you awake and alert, suppressing your immune system (see above). Natural sleep aids include

chamomile tea, melatonin or magnesium to help calm the mind. Developing and sticking with a routine that avoids stimulating activity like television, mobile devices or games at least an hour before bedtime is another widely known tip to help with falling asleep. Then meditation and prayer and the [4-7-8 breathing method](#) can help induce sleep. It consists of a breathing pattern that relaxes the nervous system.

Conclusion

This is the time to be especially vigilant in taking care of ourselves and our loved ones. In the meantime, clinical experts are doing their best and making good progress in their effort to combat this deadly disease. Thank you to our frontline medical professionals, innovators and researchers around the world who are the true heroes during this crisis. If we remember only one thing, it's that simply washing your hands with soap and water and practicing good hygiene can go a long way in preventing illness for ourselves and those around us.

About Ryan Kelly



Ryan operates in the frontlines of health innovation at the intersection of biomedical research, innovation, commercialization, and transformation. His work spans the entire landscape of product and service innovation, from translating unmet needs into products in market, to helping hospital systems foster a culture of innovation. Ryan brings nearly 20 years of experience in research, innovation and commercialization to his role at Innovation Institute's incubator, the Innovation Lab. At the Lab, he leads a talented team of professionals across the country, and together they manage partnerships with seven major hospital systems and alliances with organizations including the Cleveland Clinic, Boston Scientific, Dell, and Deloitte. They collaborate with 200,000 medical professionals affiliated across those seven systems to develop, commercialize, and bring new products and solutions to patients and the market at scale.

Ryan has amassed a long list of accolades including closed deals, strategic partnerships (industry, academia, venture), grants and fellowships, guest speaker at national and regional industry groups, and published nine peer-reviewed articles. Ryan blends his health, tech, and business mindsets to not only translate unmet needs into implemented solutions at scale, but also advise organizations and their leaders on innovation and transformation. He enjoys the opportunity to guide and empower "frontline" medical professionals to create innovative products and services that will improve the quality of healthcare for all.

When Ryan isn't working to improve healthcare across the US, he can be found enjoying the sun and surf with his wife and children in Orange County, CA. <https://www.linkedin.com/in/ryan-kelly-683b507/>