

How do I improve my immunity? Expert shares tips on what to do—and what to avoid

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

The human immune system is arguably the most complex system in the human body. But scientists have made a lot of progress in understanding how it functions.

That's important for understanding illnesses and how to manage them.

For instance, it's important to understand that an [immune response](#) takes several days to fully develop. This knowledge would hopefully prevent people from getting impatient and seeking inappropriate care.

The [immune system](#) is made up of an intricate network of cells, tissues and molecules. These control the delicate balance between eliminating cancerous or infected cells, and not harming the body in the process.

A poorly functioning immune system can cause a variety of health problems.

It could lead to a person getting recurrent infections. Depending on the nature of the immune deficiency, the infections can range from viral (such as colds, flu, shingles and fever blisters) to bacterial (such as tuberculosis) or fungal (such as thrush).

Immune system dysfunction can also present as excessive inflammation or even auto-immunity. In this case the body starts seeing its own tissues as foreign and attacks them. Some examples of these conditions are rheumatoid arthritis, lupus and psoriasis.

The factors that affect our immune system range from things we can't change, such as our genetic make-up and exposure to past pathogens, to things we may be able to control or modify.

I am an immunologist, and in this article I unpack the changes you can make today to help your immune system function better. They include diet, managing [stress levels](#), and limiting exposure to [environmental factors](#), such as germs, pollution and toxins.

Optimal immune function plays an important role in maintaining health. Given the immense complexity of the immune system, simplistic solutions are not effective. It's important to understand some of the

things you should—and shouldn't—do.

What not to do

Many products claim to "boost" the immune system. But given the complex interplay between the cells in our bodies, it's not really possible to "boost" just one part of the immune system.

And even if it was possible, "boosting" one aspect of your immune system can set off bad reactions by upsetting the delicate balance that makes up our bodies. For instance, "boosting" the immune system's ability to fight infection could also "boost" other aspects, such as inflammation, that could harm normal tissue.

It is true that the immune system relies on vitamins and minerals to perform its tasks. But there is no solid evidence that taking vitamins and [mineral supplements](#) will improve its functioning.

The exception is when a person has a known deficiency, such as vitamin D deficiency. Most people with vitamin D deficiency do not have any symptoms or only have vague, non-specific symptoms, such as tiredness or lower back ache. People living with osteoporosis, diabetes, [kidney disease](#), obesity, or depression, or those with limited sun exposure, especially the elderly, are at increased risk of having a deficiency. It's important to address the problem because it can increase the risk of fractures, as well as infection from various pathogens, especially those affecting the lungs, such as flu and SARS-CoV-2.

If you think you've got a nutrient deficiency you should consult a healthcare practitioner for an accurate diagnosis. They can set out an evidence-based management strategy for you.

The reason for seeking professional help is that dosing up on

supplements can be bad for you.

Firstly, some vitamins, such as vitamin A, D, E and K, are fat-soluble and are stored in the body. It is therefore possible to have levels that are too high, which can cause its own problems. For instance, too-high levels of vitamin D can cause kidney stones, constipation and [high blood pressure](#). Too much vitamin A or iron can cause damage to the liver and other organs.

Secondly, nutrients should not be seen as independent components. Rather they should be seen as parts of a whole. Many supplements can interact negatively with other supplements and even with medication. For instance, [vitamin K](#) can reduce the ability of the blood thinner warfarin to prevent blood clots.

Combining different supplements can also lead to excessive or inadequate amounts of certain nutrients, with potentially detrimental effects. For example, prolonged zinc supplementation can cause copper deficiency, which has been linked to anemia and impaired brain function.

What to do

The best way to ensure that your immune system gets what it needs is through a healthy and balanced lifestyle.

Diet is critical. Eat food that is unprocessed, preservative-free, and rich in a variety of vitamins, minerals and antioxidants. Your diet should include green and yellow vegetables, fruit and berries, whole grains, seeds and nuts.

And it's not just the individual components of food that are important. The interplay between them matters too. This is something that cannot

be reproduced in a tablet.

Lifestyle factors are also key. Stress is a normal and essential part of life, but it must be switched off to protect the body. Finding effective ways to control stress, such as breathing exercises, yoga and meditation, is important.

Activities that have been shown to improve health include getting enough rest, exercising regularly, spending time outdoors, and staying connected socially. Smoking and excessive alcohol use are clearly harmful.

Finally, we often forget to be kind to ourselves. When you are ill, take time to recover. When you are going through an especially stressful time, make an extra effort to de-stress.

Most importantly, don't regard these as emergency measures. Make them part of your lifestyle. As tempting as it may be, it is not possible to "supplement" yourself out of a bad lifestyle.

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