

## Nutritional Support of Immune Function



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When people think about their immune system, they usually consider its role in fighting a cold or infection. But there is a direct connection between the immune system and nutrition.

Our immune system is one of the most effective forms of defense against viral infections. There are two categories of immune functions in everyone's body – the innate immunity which prevents diseases from entering the body and adaptive immunity which eliminates or prevents the growth of pathogens, such as viruses and bacteria, in our body.

In a person who is malnourished, the immune system shuts down. In people who are overweight or obese, the immune system becomes hyperactive and causes inflammation.

# Tips to Support your Immune System



## **MAINTAIN A BALANCED DIET**

Lean protein,  
healthy carbs  
and omega-3  
fatty acids



## **WASH YOUR HANDS**

Wash with soap  
for 40 seconds\*.  
Make sure to get  
to palms, backs  
of hands, under  
fingernails  
and wrists.



## **GET ADEQUATE REST**

Aim for ~7 hours  
per night to allow  
your body  
to recover from  
stress and exercise



## **EXERCISE**

Daily moderate  
activity (30 min/day)  
can help boost your  
immune system



## **HYDRATE**

Drink 4 to 6  
cups of  
water daily

\*[https://www.who.int/gpsc/5may/Hand\\_Hygiene\\_Why\\_How\\_and\\_When\\_Brochure.pdf](https://www.who.int/gpsc/5may/Hand_Hygiene_Why_How_and_When_Brochure.pdf)

## How Nutrition Impacts the Body's Immune System

There is a tangible connection between the immune system and nutrition. What we eat, where we live, how much we sleep, how we exercise, and even who we live with, all causes chemical reactions that can alter our health status.

Added to the mix is our microbiome, which are the microorganisms we depend on to protect us against germs, break down food for energy, produce vital vitamins and bolster our immune system.

The largest part of the immune system – approximately 70% of it – is located near the intestines, which monitors the intake of food and how the body uses it. This makes it critical for us to consume a balanced diet with the right vitamins, minerals, and nutrients while maintaining a healthy lifestyle.

## 4 Tips to Increase Nutrients That Help Strengthen the Immune System

Eating a balanced diet requires ensuring that there is optimal nutrition intake at a cellular level. Make sure you consume enough of the following nutrients:

### 1. **Include protein in your daily nutrition.**

Also known as the basic building blocks of the body, protein allows the body to manufacture antibodies that it requires to defend against invading viruses and bacteria. To ensure that we have sufficient levels of protein in our diet, we can eat more healthy protein foods such as fish, poultry, lean meats, soy foods and low-fat dairy products.

### 2. **Incorporate vitamins and phytonutrients.**

Vitamins A and C, as well as phytonutrients, are key players in immune system health. As one of the biggest immune system boosters, Vitamin C encourages our body to produce antibodies that fight diseases. It is essential to maintain a daily intake of vitamin C as the body does not produce or store it. Vitamin A supports the health of our skin, tissues of our digestive tract and respiratory system.

Phytonutrients, which are found in vegetables and fruits, reduce our body's oxidative stress, which may weaken its ability to fight off illnesses. A number of phytonutrients have been shown to reduce the risk of cancer and cardiovascular diseases, fight inflammation, lowering blood pressure, and boost the overall health of our immunity system.

### **3. Focus on gut health with probiotics and prebiotics.**

The digestive system plays a central role in supporting immune function. The intestinal tract is the main route of contact with the external environment and is a pathway that contains microbiomes that aids digestion as well as the absorption of nutrients. Having the right gut bacteria has been associated with benefits such as weight loss, improved digestion, healthier skin, and most importantly enhanced immune function, although research in these areas is not conclusive or universally applicable.

Studies have shown that probiotics, which are 'good bacteria', are useful in maintaining the digestive system, and prebiotics, types of fiber that the human body cannot digest, serve as food for these probiotics.

### **4. Increase omega-3 fatty acids.**

Omega-3 fatty acids, such as DHA and EPA, are healthy and essential types of fat, which can be found in food such as chia seed and supplements such as fish oil. Omega-3 fatty acids may enhance the functions of immune cells, which plays a large role in both the innate and adaptive system that responds to infections.

Following general good-health guidelines –balanced diet, regular exercise– is your first line of defense and the best way towards naturally keeping your immune system strong and healthy.