

## Spices that can strengthen your immune system in COVID 19 pandemic

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### Abstract

The immune system or immunity cannot be built up in a day, it needs a well-balanced diet and a sound, active physical and mental health. There's been a lot of interest has been developed to strengthen one's immune system in the wake of COVID-19 pandemic, and building a first line of defense against the deadly virus. However, many natural ingredients are known for their immunity boosting property. Herbs and spices were well known from ancient times for their medicinal properties. More than 80 spices are grown in different parts of the world, particularly in Asia. India is home to several spices that are used extensively in traditional medicine. Hippocrates, the ancient Greek physician, often referred as the father of Western medicine, once said, "Let food be thy medicine, and medicine be thy food." Spices are wonderful because, unlike drugs, we don't need to "take" them. Instead, we can add them to our favorite dishes for a kick of flavor and increased immunity.

**Turmeric**, the golden spice comes from the root of a flowering plant of the ginger family and has been used medicinally for more than 4,500 years. In Ayurvedic medicine system, turmeric gets a special place for treating skin conditions, digestive issues and bodily discomfort. Curcumin, the active component helps in boosting the body's antioxidant capacity by being highly effective against free radicals. Turmeric has also been shown antifungal and anti-tumor activity.

**Ginger**, a very common ingredient in kitchens around the world, is filled with nutritional properties. Ginger contains chemicals which belong to sesquiterpenes class of terpenoids which targets cold viruses. Alongwith immune-boosting properties, it also has antibacterial properties that can help in preventing nausea. Functional chemicals such as gingerols, shogaol and paradols have found to be effective against various cancers. The spice's anti-inflammatory and anti-oxidative properties help in controlling the process of ageing, aid in digestion. Reports and demonstrated the potential use of ginger to treat degenerative disorders, as well as cardiovascular disease. Antimicrobial compounds of ginger help in treating infectious diseases.

**Cayenne pepper**, also known as the chili pepper is a member of the Capsicum family. Capsaicin, the major component of cayenne pepper suppresses a neuropeptide involved in inflammatory processes. A study on pepper indicates its contribution in digestive health by fighting gastrointestinal pathogens, ulcerations and cancer. It also regulates appetite and digestive function. In addition to its potent immune-boosting nutritional composition, the spice is also an excellent source of beta carotene, a powerful antioxidant.

**Garlic** has been used by various ancient civilization for medicinal purposes. Garlic supplements are useful in maintaining blood pressure and have shown the increase in antioxidant enzymes activity in humans. High doses of garlic have also demonstrated the potential to protect the body against heavy metal toxicity.

**Cinnamon** has anti-inflammatory properties and helps in fighting against infections and healing damaged tissues. Polyphenols constitute the major part of cinnamon and responsible for its high antioxidant activity. Studies also reported its anti-diabetic and cardioprotective effects.

The health enhancing qualities of spices are endless and so are their applications. Consumption patterns and lifestyles have also changed, thereby encouraging players to rev up their R&D engines and develop a range of nutraceutical products that leverage the manifold benefits of Indian spices.