Stay Healthy This Cold and Flu Season

Every winter there's an increase in the number of people who get viral diseases like colds and flu. The number of cases typically starts rising in early December, peaks in January and February, and then drops back off in March. Why is this so?

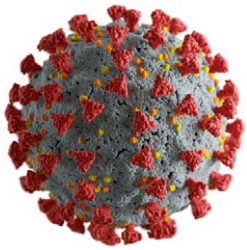
In the past people ascribed these illnesses to being exposed to cold weather. That's why these viral infections are often called colds. Even today some people think that getting cold will cause them to catch a cold, but it really isn't cold weather that creates the cold and flu season.

Today we view these diseases as being caused by exposure to viruses. However, there aren't more viruses in the wintertime than there are at other times of the year. Viruses, like bacteria and fungi, are always present in the environment. So, cold and flu season occurs because something happens during these winter months that makes people more susceptible to infection. In other words, something reduces the effectiveness of their immune system.

The cold and flu season appears to be associated with seasonal variation in nutrition, that is, people have lower levels of important nutrients necessary for immune function. The primary nutrients that appear to be involved are vitamin D3 and vitamin C. Many people experience lower levels of these nutrients during the winter and both are necessary to ward off viral diseases.

So, it's possible that taking these and other immune-boosting nutrients and herbs during the winter months will help you avoid the cold and flu season entirely. In fact, these same supplements can fortify your body against viral infections all year long. After introducing you to these nutrients and herbs, we'll offer practical suggestions for appropriate levels of supplementation. These supplements can also help you recover faster if you do get sick.

Understanding Viruses



To understand the role nutrition plays in preventing and overcoming viral infections, you need to understand the nature of these infections. Viruses are very different than bacteria, fungus, one-celled microbes, and parasites. These other organisms are cellular, which means they are composed of cells that make them living organisms which metabolize nutrients, grow, repair themselves, and reproduce.

Viruses don't have any of these characteristics of living organisms. They are not cells; they are pieces of genetic material (DNA or RNA) wrapped in membrane. You can't kill viruses, because they were never really alive to begin with. And like any piece of organic material they are inert and decompose fairly rapidly outside of a living cell.

Although viruses can't metabolize or reproduce, they can be reproduced. For this to happen, a virus has to 1) get into your body, 2) attach to your cells, 3) penetrate cell membranes and enter those cells, and 4) hijack cellular functions so they can be copied. Unless they successfully do all four of these things, they can't hurt you. That's where your immune system enters the picture.

How the Immune System Deals with Viruses

The immune system seeks to block all four of these viral activities. First, the mucus secreted by your mucus membranes acts as a physical barrier to trap viruses, along with foreign bacteria, fungi, and particulate matter like dust and pollen. It flushes these irritating substances away by sneezing, coughing, or otherwise expelling them. It also contains antibodies that allow immune cells to identify and destroy them.

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SUNSHINE SHARING

Your guide to better health the natural way.

Vol. 32 No. 12

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If you have a healthy GI tract and lungs, most viruses won't make it past this first line of immune defense. If they do, they have to attach to and cross the cell membrane, which is another barrier to infection. Healthy cells resist viral entry and they also resist viruses once inside the cell by blocking their ability to replicate themselves.

Cells have to have these defensive mechanisms because viruses are everywhere. In fact, just like your body has a microbiome (a host of friendly bacteria and fungi), it also has a virome, a host of viruses naturally present both in and on your body.

Over Sterilization Isn't Good

No matter how hard you try to sterilize everything you'll never get rid of all the viruses, bacteria, or fungi in your environment and you shouldn't want to. Your body needs to be exposed to a certain background level of microbes to prime and train your immune system to function properly.

Excessively sterilizing everything causes the immune system to overreact when it encounters higher levels of microbes. This is why the increased use of disinfectants, antibiotics, and other measures to try to destroy microbes has resulted in an increase in allergies, asthma, and other overreactions of the immune system, including autoimmune disorders. To put it bluntly, you need to keep your environment clean, but there is no reason to be germ-phobic.

Immune Responses to Infection

In the end, if a virus does make it past these defenses and does hijack a cell's functions, the body's adaptive immune system is able to recognize the compromised cells, develop antibodies, and destroy the defective cells to halt the progress of viral replication.

Part of this process is to raise the body temperature creating a low-grade fever (under 102º), which inhibits viral replication. Another aspect of this process is to open eliminative channels to expel damaged cellular material and viruses, producing symptoms like coughing, sneezing, skin eruptions, and so forth. Understanding this will help you understand how you can help your body fight the infections better.

Nutrition and Natural Resistance

The fact is that if cells are getting the nutrition they require, they will resist both the entry of viral agents and their ability to hijack cellular functions. There is plenty of research demonstrating this fact. The big problem is that most people are not aware of it.

You can use the following nutrients and herbs to fortify your immune system and help it become resistant to infections of all kinds, not just viral infections. This not only applies to cold and flu viruses (coronaviruses and influenza), but also SARS, HIV, Epstein-Barr, West Nile, hepatitis, and COVID-19.

We'll start with the most probable deficiency responsible for the cold and flu season, vitamin D3.

Vitamin D3

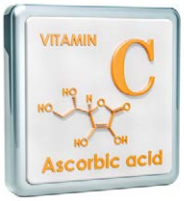
Vitamin D3 has been called the sunshine vitamin because the body can make it out of cholesterol when the skin is exposed to sunlight. That's why people's blood levels of vitamin D3 tend to be highest in summer months, from June to September. During the dark days of winter, from December to March, they are typically at their lowest levels.

This means that there is an almost perfect correlation between low levels of vitamin D3 and the cold and flu season. This has led some nutritionists to believe that it is darkness (not the cold) of winter that is responsible for people's increased susceptibilities to infection, simply because it results in lower levels of this essential nutrient for a healthy immune system.

Vitamin D3 is considered the world's number one nutrient deficiency. It has been estimated that as high as 90% of the population doesn't get enough. This is largely due to poor diet and an indoor lifestyle. Native people in northern climates helped protect their health in winter by eating foods rich in vitamin D3, such bear and reindeer liver, whale or seal blubber, and salmon.

You can accomplish the same thing by taking vitamin D3 supplements during the dark days of winter. Most people will benefit from taking around 50-100 mcg. (1-2,000 I.U.) daily during the cold and flu season. You can have your vitamin D3 levels tested and if they are low you will benefit from taking a higher dose, 125-250 mcg. or 5-10,000 I.U. daily, until levels come up to normal.

Adequate vitamin D3 will not only make you less likely to catch a viral disease, it will also help to reduce your risk of other health problems common during the winter months, including heart attacks and depression. It will also improve the health of your bones and teeth. This makes vitamin D3 a cheap and effective therapy to improve overall health.



Vitamin C

Another nutrient that has seasonal fluctuations is vitamin C. Most people have higher levels of vitamin C in the summer and fall, with levels falling off during the months of winter and early spring. Obviously, this has to do with the seasonal availability of fresh food. Vitamin C degrades rapidly with heat, light, and time spent in storage, which makes it harder to obtain in the winter.

This wouldn't be a problem if your body could synthesize vitamin C, as many other mammals, such as dogs, cats, sheep, goats, and cows, are able to do. Unfortunately, human beings do not have the enzyme necessary for this, and other animals that share this problem, like fruit bats and guinea pigs, consume vitamin C-rich foods as the bulk of their diet.

The RDA for vitamin C for adults is only 90 mg., but many researchers feel this is not enough to maintain optimal health. A more reasonable amount is about 2,000 mg. per day, which is in line with what other mammals produce for their body weight. The ideal way to get this is by eating fresh fruits and vegetables because these foods contain cofactors, like bioflavonoids, that aid the utilization of vitamin C.

Many native people also consumed special foods in winter to supplement their vitamin C. These included teas made from pine nettles and rose hips and the raw adrenal glands of animals. People in Russia and Ukraine simmer dried fruits, such as apricots, raisins, apples, and rose hips in water to make a drink called kompot, which is consumed during the winter months.

Most people should consider taking a vitamin C supplement with bioflavonoids during the winter months. And if you don't eat a lot of fresh food taking one all year long would be a good idea. For preventative measures take 500-1,000 mg. twice daily. Taking higher doses increases urinary secretion of vitamin C and probably isn't necessary for most people.

Zinc

Although zinc levels don't have the seasonal fluctuation that vitamins C and D3 do, zinc is extremely critical for the immune system when it comes to fighting viruses. That's because zinc not only supports the immune processes that keep viral agents from getting to the cells, it also inhibits viral replication inside the cell. While deficiencies of zinc are not as common as vitamin D3 deficiencies, there is a large part of the population (40-50%) that don't get enough of this mineral.

These deficiencies are more common in the elderly, which is the most susceptible population for serious complications from viral diseases like the flu or the more recent SARS-2 (COVID-19) virus. This may be due to diminishing production of hydrochloric acid (HCl) in the stomach, which is needed for the absorption of zinc and other minerals like iron, copper, calcium, and magnesium. The problem is that it takes zinc to make hydrochloric acid, so as levels of zinc decline, so do levels of HCl in the stomach.

A few indications that a person might be low in zinc include grey or thinning hair, digestive issues, low sex drive in men, anxiety and moodiness, and increased susceptibility to viral diseases. You don't want to supplement with too much zinc, as taking too much of any mineral can imbalance other minerals in the body. For example, copper and zinc are antagonists, so taking too much copper will depress levels of zinc and vice-versa. For most people 5-10 mg. per day is sufficient, but when illness is going around, or one has low levels, a good dose is 25 mg. per day. For a lower dose you could take 25 mg. once or twice weekly.

Zinc Ionosphores

Zinc is not a fat-soluble mineral so it needs to be transported across cell membranes and get inside the cell where it can inhibit viral replication. Substances that help zinc cross the cell membrane are called ionosphores. Taking zinc with an ionosphore makes it more effective in blocking viral replication.

The controversial drug hydroxychloroquine is an ionosphore, which is a major part of its action in inhibiting viral replication. It is available only by prescription in the United States. The prescription drug ivermectin also acts as an ionosphore.

There are two natural ionosphores one can take without getting a prescription, which will enhance zinc uptake and help prevent and fight viral infections. They are the flavonoid quercetin and epigallocatechin-gallate (EGCG), an extract from green tea. EGCG is the major catechin in green tea extract and can be taken with zinc to enhance absorption.

Quercetin is found in high amounts in apples, onions, red grapes, citrus fruits, and green leafy vegetables. You can also supplement with it in doses of about 500 mg. two or three times per day. It has been found to have antiviral activity against Influenza A, Ebola and Zika viruses. In the studies on Ebola and Zika viruses, researchers used very high doses of 3000-7000 mg. a day.

Vitamin A

Vitamin A is also very important for the health of skin and membranes, which are the first line of defense against infectious diseases. It aids the surface immune system by helping the production of IgA antibodies. It works with vitamin D3 to keep your immune system healthy in the winter.

Your body can make vitamin A from the carotenoids found in vegetables like carrots and squash and the actual vitamin can be found in butter, eggs yolks, liver, and seafood, and fish liver oil. In times past, many people took cod liver oil, a source of vitamin A and D and omega-3 essential fatty acids, to stay healthy in the winter. You can do the same or take a vitamin A&D supplement made from fish liver oil. A good dose would be 3,000 I.U. (1,050 mg.) daily.

Herbs for Wintertime Immunity

People around the world have also used various herbs during the winter to reduce their susceptibility to colds and flu. Many of these herbs, taken along with the aforementioned nutrients, can also speed recovery from various viral infections.

Elderberry

There are a number of studies that have demonstrated that compounds in black elderberry, *Sambucus nigra*, have the ability to inhibit influenza viruses from attaching and entering cells. Blue elderberries may work also. Elderberries have long been used as a remedy for colds and flu, but are best used for prevention or as a remedy during the early stages of a cold or flu.

Elderberries work well in combination with vitamin C, vitamin D3, zinc, and immune boosting herbs like echinacea to help prevent viral infections in the winter. When viral infections are going around try taking an *Elderberry Cold and Flu Formula* daily, with ingredients like those listed above to keep your immune system resistant to the viruses.

In the later stages of flu and COVID-19 inflammatory cytokines are already overstimulated, so boosting the immune system with herbs like elderberry and echinacea should be avoided. In these later stages, the hyperactive immune system starts causing severe respiratory distress. In these cases, herbs that modulate immune responses are better. These include astragalus, cordyceps, and reishi.

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Astragalus

Astragalus is an adaptogenic and tonic herb used in Chinese herbalism to boost energy and strengthen immunity. Astragalus has antiviral properties, which make it helpful for both preventing and treating colds and other respiratory infections. Astragalus is particularly helpful in fortifying the lungs in winter. If you want to fortify your immune system and protect your lungs during the winter months try taking 1-2 capsules of astragalus twice daily. Astragalus can also be cooked with rice or added to soups and stews.

Cordyceps

Cordyceps is fungus that grows on caterpillars. It is used as a tonic in Chinese medicine to balance the yin and the yang energies of the body. It enhances the body's ability to fight infection and is especially helpful as a tonic for people who have weak lungs.

Cordyceps reduces inflammation in the respiratory system and is helpful for symptoms associated with chronic respiratory problems like asthma and COPD, such as shortness of breath, cough, loss of appetite and low energy. A typical dose for enhancing respiratory and/or immune function would be 2-3 capsules two or three times daily.

There are many other herbal remedies that can be helpful for preventing and/or fighting viral infections. These include other medicinal mushrooms like shiitake and maitake, lemon balm, St. John's wort, yarrow, garlic, and andrographis. Look for formulas that contain ingredients like these, such as a *Children's Elderberry Immune Formula* (with elderberry, astragalus, echinacea, reishi, maitake, vitamins C & D, and zinc), a *Mushroom Immune Formula* (with cordyceps, reishi, and shiitake mushrooms), or an *Immune Boosting Formula* (with zinc, elderberry, echinacea, and vitamin C & D).

Fighting Viral Infections Naturally

If you do come down with a viral infection, don't make the mistake of fighting your body's immune responses trying to get rid of it. If you have a fever of 102° or lower, don't try to bring it down. The fever is helping the body contain the virus.

Also, if you're congested, don't use cough suppressants and antihistamines to dry up the mucus. Instead use a formula that helps to thin and expel the congestion such as *Jeannie Burgess' Allergy/Lung Formula* (with boneset, fenugreek, horseradish, and mullein) or the *Ayurvedic Bronchial Decongestant Formula* (with malabar nut leaf, licorice, mullein, and Indian elecampane).

You can also take nutrients like zinc, Vitamins A, C, and D3 to help boost your immune responses to fight off the infection. Drink plenty of fluids to help your body flush viral materials and other irritants from the system. Don't eat foods with heavy protein or starch. Use fresh juices, soup (especially broth), and other light foods to allow your digestive tract to rest.

Above all, keep a positive attitude and trust your body's ability to fight the infection. Even with serious viral infections, most people recover if they are able to support their health. Of course, if you do have serious complications from any virus, seek appropriate medical attention.

Additional Help and Information

For more information about staying healthy this winter contact the person who gave you this newsletter and the following resources:

Strategies for Health by Steven Horne
https://lpi.oregonstate.edu/mic/vitamins/vitamin-C
https://www.lewrockwell.com/2020/02/bill-sardi/most-animals-can-harbor-but-are-not-sickened-by-coronavirus-because-they-internally-produce-vitamin-c-24-7/
https://www.healthfirstdc.com/blog/the-importance-of-zinc-concerning-viral-replication
https://www.lewrockwell.com/2020/04/bill-sardi/modern-medicine-knew-of-zinc-cure-for-coronavirus-infections-a-decade-ago-but-failed-to-put-into-practice/
https://drrandybaker.com/2020/04/03/zinc-quercitin-an-effective-treatment-for-covid-19/