

Head to the Grocery Store this Cold/Flu Season!

Cold and flu season is just around the corner...are you prepared? Frequent handwashing, adequate rest, a flu shot, and finding ways to reduce stress are important in keeping you well and preventing the spread of infection, but what you eat can make a difference as well.

Unfortunately, there isn't one specific food or nutrient that will magically deter cold and flu viruses, but an overall, healthful, balanced diet plays an important role in preventing you from getting sick and helping you heal quickly if you do.

Here's what I mean...when examining the nutrients that are being studied for their immune-enhancing effects, the following nutrients/food sources stand out:

Beta-carotene: deep yellow fruits and veggies and dark-green leafy greens

Vitamin B6: whole grains, legumes, chicken, pork

Vitamin C: citrus, berries, melon, tomatoes, broccoli

Vitamin E: wheat germ and nuts

Protein: dairy, meat, poultry, fish

Selenium: meat, seafood

Zinc: beef, seafood

If you look at the food sources carefully, you'll see that each of the different food groups is represented. So, an overall, balanced diet, including foods from all food groups will ensure you get adequate amounts of the nutrients thought to enhance your immune system's performance. A further explanation of some of these, with a few specific suggestions, are included below.

FRUITS/VEGETABLES: Fruits and vegetables are great sources of Vitamins A (and its precursor beta-carotene) and C. These vitamins, as well as other chemicals that lend fruits and veggies their vibrant colors, work as antioxidants in the body. Antioxidants bolster immune function by neutralizing free radicals, which can break down cells, leaving them vulnerable to invading bacteria and viruses. Vitamins A and C also play specific roles in the production and activity of specific immune cells found in the blood stream (neutrophils, macrophages, lymphocytes). Eating five to nine servings of fruits and vegetables per day can ensure you are getting enough of these important immune-boosting nutrients.

But can't you get these vitamins, minerals, and antioxidants in a pill? Yes and no. You surely CAN consume these individual nutrients in pill form, but research shows us that when these nutrients are consumed individually, they don't convey the same benefits as when these nutrients are consumed from whole foods in the context of a healthy diet. Not to mention that there are many other antioxidants and immune-bolstering chemicals in foods that are still unidentified. On the other hand, a standard multi-vitamin supplement can help you meet your nutrient needs, but this pill can never replace the effects of

a balanced diet rich in fruits and vegetables. Choose a multi specific to your age/gender with around 100%DV of vitamins/minerals. Remember high doses don't equal super immunization!

LEAN PROTEIN: The amino acids found in proteins form the building blocks of all the body's cells, including the cells that power the immune system. When the body is under attack, immune cell production increases. But without adequate protein, you can't produce more immune cells. Most American diets provide more than enough protein. Consuming 2-3 servings of lean meats/beans (3 oz/serving) with 2-3 servings of low fat dairy throughout a day along with whole grains choices will provide enough protein for most. Lean protein sources include skim or 1% milk, low fat yogurt and cheeses, lean/round cuts of beef/pork, baked/broiled fish/shellfish, eggs, lentils, beans and soy products.

LOW FAT/HEALTHY FATS: A high fat diet suppresses immune function by affecting the function of specific immune cells found in the blood. So, overall, a fairly low fat diet will aid the immune system. Your total fat intake should be around 30% or less of your total caloric intake (that's no more than 67g of fat if you consume 2000 calories). The type of fat you consume is also important. Trans fat and saturated fat contribute to cardiovascular disease. Omega 3 fatty acids and monounsaturated fats promote the health of the heart. The immune system is dependent on blood flow – so a diet that promotes a healthy heart and vascular system (low in “bad fats”, moderate in “good fats) will enhance the immune function. Use canola oil or olive oil to stir-fry and/or to make salad dressings. Consume fish/seafood 2 times per week. Other sources of healthy fats include avocado, nuts, and seeds. Avoid saturated and trans fat (butter, animal fats, fatty meats, high fat dairy, anything with “partially hydrogenated oils”)

GREEN TEA: Green tea contains a specific antioxidant, epigallocatechin gallate (ecgc), that is being studied for its immune-enhancing abilities. Though not proven in human studies yet, studies in petri dishes have demonstrated the potential of ecgc to prevent certain cold and flu viruses from replicating. Even if this research isn't reproduced in human trials, it's still reasonable to consume some green tea each day. The polyphenols in tea have antioxidant effects in the body and may promote heart health through prevention of plaque build up in arteries. The benefits of green tea will be multiplied if you drink it to replace other sugary, non-nutritious beverages in your diet.

YOGURT: Yogurt with live cultures, especially those with noted “probiotics” are being studied for immune-enhancing abilities too. Results look promising that consuming extra “good bacteria” (probiotics) in yogurt (or other foods or supplements that contain “active live cultures”) can prevent the “bad bacteria” from multiplying out of control. It's also thought that these probiotics may

change the way your immune system reacts to an invading microorganism and whether your digestive tract becomes inflamed as a result.

Keep these concepts in mind as you cruise the grocery aisles rather than the medicine cabinet this cold/flu season!

<http://www.eatright.org/Public/content.aspx?id=6442460036&terms=green+tea>

http://articles.cnn.com/2007-11-14/health/cl.best.defense_1_immune-system-antigens-germ-fighting?_s=PM:HEALTH

<http://abcnews.go.com/Health/ColdandFluNews/story?id=6141948&page=1>

<http://www.eatright.org/Media/content.aspx?id=11000&terms=flu>

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<http://www.mayoclinic.org/medical-edge-newspaper-2009/jan-02a.html>