

## 6 Natural Foods to Boost Your Immune System

1

**Vitamin C.** Vitamin C tops the list of immune boosters for many reasons. There has been more research about the immune-boosting effects of Vitamin C than perhaps any other nutrient. Vitamin C increases the production of infection-fighting white blood cells and antibodies and increases levels of interferon, the antibody that coats cell surfaces, preventing the entry of viruses. Vitamin C reduces the risk of cardiovascular disease by raising levels of HDL (good) cholesterol while lowering blood pressure and interfering with the process by which fat is converted to plaque in the arteries. As an added perk, persons whose diets are higher in vitamin C have lower rates of colon, prostate, and breast cancer.

Foods that contain Vitamin C:

- **Orange**
  - **Pineapple**
  - **Strawberry**
  - **Papaya**
  - **Cantaloupe**
  - **Grapefruit**
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2

**Vitamin E.** Vitamin E stimulates the production of natural killer cells, those that seek out and destroy germs and cancer cells. Vitamin E enhances the production of B-cells, the immune cells that produce antibodies that destroy bacteria. It's not difficult to get 30 to 60 milligrams every day of Vitamin E from a diet rich in seeds, vegetable oils, and grains, but it's difficult for most people to consume more than 60 milligrams a day consistently through diet alone. You need 100-400 milligrams per day, depending on your general lifestyle. People who don't exercise, who smoke, and who consume high amounts of alcoholic beverages will need the higher dosage. Those with a more moderate lifestyle can get by with lower levels of supplementation.

Foods that contain Vitamin E:

- **Avocado**
- **Almonds**
- **Asparagus**
- **Hazelnuts**
- **Pistachios**

- **Peanuts**
- **Papaya**
- **Mango**
- **Blueberries**
- **Apples**
- **Sweet Potatoes**
- **Mustard Greens**
- **Turnip Greens**
- **Spinach**
- **Sunflower seeds**
- **Olives**

Unheated vegetable oils that contain Vitamin E

- **Wheat germ oil**
  - **Sunflower oil**
  - **Almond oil**
  - **Cottonseed oil**
  - **Safflower oil**
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3

**Carotenoids.** Beta carotene increases the number of infection-fighting cells, natural killer cells, and helper T-cells, as well as being a powerful antioxidant that mops up excess free radicals that accelerate aging. Studies have shown that beta carotene can lower the risk of cardiovascular disease, especially strokes and heart attacks, giving scientific credence to the belief that a carrot a day can keep the heart surgeon away. Beta carotene also protects against cancer by stimulating the immune cells called macrophages to produce *tumor necrosis factor*, which kills cancer cells.

Beta carotene is the most familiar carotenoid, but it is only one member of a large family. Researchers believe that it is not just beta carotene that produces all these good effects, but all the carotenoids working together. This is why getting carotenoids in food may be more cancer-protective than taking beta carotene supplements.

The body converts beta carotene to vitamin A, which itself has anticancer properties and immune-boosting functions. But too much vitamin A can be toxic to the body, so it's better to get extra beta carotene from foods and let the body naturally regulate how much of this precursor is converted to the immune-fighting vitamin A. It's highly unlikely that a person could take in enough beta carotene to produce a toxic amount of vitamin A, because when the body has enough vitamin A, it stops making it.

Foods that contain carotenoids:

- **Kale**
- **Spinach**
- **Sweet Potatoes**
- **Winter Squash**
- **Cilantro**
- **Fresh Thyme**
- **Collard Greens**
- **Carrots**
- **Tomatoes**

4

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**Omega-3 fatty acids.** A study found that children taking a half teaspoon of flax oil a day experienced fewer and less severe respiratory infections and fewer days of being absent from school. The omega 3 fatty acids in flax oil and fatty fish (such as salmon, tuna, and mackerel) act as immune boosters by increasing the activity of phagocytes, the white blood cells that eat up bacteria. (Perhaps this is why grandmothers used to insist on a daily dose of cod liver oil.) Essential fatty acids also protect the body against damage from over-reactions to infection. When taking essential fatty acid supplements, such as flax or fish oils, take additional vitamin E, which acts together with essential fatty acids to boost the immune system. One way to get more omega-3 fatty acids in your diet is to add one to three teaspoons of flax oil to a fruit smoothie.

Foods that contain Omega-3 fatty acids:

- **Flax seed oil**
- **Walnuts**
- **Salmon**
- **Sardines**
- **Clove**
- **Oregano**
- **Mustard seed**
- **Cabbage**
- **Broccoli**

5

**Zinc.** This valuable mineral increases the production of white blood cells that fight infection and helps them fight more aggressively. It also increases killer cells that fight against cancer and helps white cells release more antibodies.

Zinc increases the number of infection-fighting T-cells, especially in elderly people who are often deficient in zinc, and whose immune system often weakens with age. The anti-infection hype around zinc is controversial. While some studies claim that zinc supplements in the form of lozenges can lower the incidence and severity of infections, other studies have failed to show this correlation. A word of caution: too much zinc in the form of supplements (more than 75 milligrams a day) can inhibit immune function. It's safest to stick to getting zinc from your diet and aim for 15 to 25 milligrams a day. The best source of zinc for infants and young children is zinc-fortified cereals. Zinc is also known as an antioxidant to protect skin and muscle from premature aging.

Foods that contain Zinc:

- **All-bran cereal**
- **Almonds**
- **Artichoke**
- **Avocado**
- **Bananas**
- **Blackberries**
- **Brazil nuts**
- **Brewers yeast**
- **Cashew**
- **Cauliflower**
- **Chickpeas (including hummus and falafel)**
- **Cucumber**
- **Fish**
- **Kidney Beans**
- **Kiwi fruit**
- **Lettuce**
- **Lima beans**
- **Olives**
- **Onion**
- **Peaches**
- **Peanuts**
- **Peas**
- **Pecan Nuts**

- **Pine Nuts**
  - **Pumpkin seeds**
  - **Radish**
  - **Soya beans (including tofu products)**
  - **Spinach**
  - **Squash**
  - **Strawberries**
  - **Sunflower seeds**
  - **Sweet potatoes**
  - **Tomatoes**
  - **Walnuts**
  - **Wheat Bran**
  - **Wheat Germ**
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6

**Selenium.** This mineral increases natural killer cells and mobilizes cancer-fighting cells. Selenium supports the function of thyroid glands that controls the energy, protein and reacts to hormones. Selenium levels in foods vary geographically, depending on the soil content. Because our food comes from all over the world, it's hard then to know how much selenium is in particular foods and thus exactly how much we are getting. Nevertheless, the best sources are whole grains (eat several servings daily), nuts (particularly Brazil nuts), and seafood (eat two or three servings a week, also for its heart-health benefits). Eat foods rich in vitamin E, such as nuts, seeds, and fortified cereals, since this vitamin increases the effectiveness of selenium in the body.

Foods that contain Selenium:

- **Brazil nuts**
- **Sunflower seeds**
- **Tuna**
- **Salmon**
- **Shiitake mushrooms**
- **Wheat germ**
- **Barley**
- **Brown rice**
- **Oats**
- **Garlic**
- **Onions**