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# VITAMIN C AND THE COMMON COLD

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Vitamin C supplements have gained popularity during the last few decades, largely due to Nobel Prize-winning scientist Linus Pauling's book, Vitamin C and the Common Cold (1970). Dr. Pauling encouraged people to take large doses of vitamin C daily (1,000mg; the approximate amount in 14 medium-sized oranges) to both prevent colds and reduce their symptoms and duration. Ever since his book was published, many people have been interested in vitamin C and its effects on the common cold. This article provides some basic information on vitamin C and discusses how vitamin C influences the common cold.

## What is vitamin C?

Vitamin C, also known as ascorbic acid, is a water-soluble vitamin that we must obtain from foods regularly due to the body's inability to store or produce it.
Food sources that are high in vitamin C include fruits and vegetables such as citrus, peppers, spinach, and broccoli. (See Table 1, Food Sources of Vitamin C)

Table 1: Food Source of Vitamin C

| Food | Serving Size | Vitamin C (mg) |
|---|---|---|
| Red bell pepper, raw | 1 cup chopped | 190 |
| Fruit juice blend, 100% juice | 1 cup | 161 |
| Green bell pepper, raw | 1 cup, chopped | 120 |
| Broccoli, fresh, cooked (no salt or fat added) | 1 cup, chopped | 119 |
| Strawberries | 1cup, whole strawberries | 85 |
| Pineapple, raw | 1 cup, diced | 74 |
| Orange | 1 medium (2-5/8 inches. across) | 70 |
| Kiwi | 1 fruit | 70 |
| Mango | 1 fruit | 57 |
| Cabbage, red, raw | 1 cup, chopped | 51 |
| Cantaloupe, raw | Medium wedge (1/8 of medium melon) | 25 |
| Tomato, raw | 1 medium (2-3/5" across) | 16 |
| Cherry, sweet, raw (Bing) | 1 cup with pits | 10 |
| Peaches, raw | 1 medium (2-2/3" across) | 10 |

Note: Vitamin C is sensitive to heat. It can be destroyed in overcooked vegetables.
Reference: SuperTracker, Food-A-Pedia (USDA)

Vitamin C has many functions:

- Acting as an antioxidant – prevents cell damage
- Helping in collagen formation in skin, gums and bones – collagen helps support these structures
- Increasing absorption and utilization of iron
- Improving the immune system – increases the ability to ward off diseases, such as the common cold.

## How much vitamin C do I need in a day?

The amount of vitamin C you need in a day depends on your age and gender. Table (Table 2) gives the recommended daily amounts. If you smoke, you need to add 35mg to what is listed in the table.

Do not consume more than 2,000mg of vitamin C from foods and supplements in a day. It may cause gastrointestinal discomfort, nausea and vomiting. Those with a history of kidney stones should avoid high levels of vitamin C.

People who do not consume enough vitamin C can develop the deficiency disease known as scurvy. Scurvy symptoms include: bad breath, swelling and bleeding of the gums, poor wound healing, bleeding under the skin (bruising), and weakness. These symptoms develop because of a lack of collagen and vitamin C helps make this protein. Scurvy is a rare diagnosis in the US given our resources for fresh fruit, vegetables, and juice. However, low vitamin C levels are common in adults living on low incomes and elderly living alone in poverty, and chronically ill individuals.

Table 2: Recommended Daily Intakes of Vitamin C

| Life Stage Group | Vitamin C (Ascorbic Acid) (mg/day) |
|---|---|
| **Children** | |
| 1-3 years old | 15 |
| 4-8 years old | 25 |
| **Males** | |
| 9-13 years old | 45 |
| 14-18 years old | 75 |
| 19- >70years old | 90 |
| **Females** | |
| 9-13 years old | 45 |
| 14-18 years old | 65 |
| 19 to >70years old | 75 |
| **Pregnancy** | |
| 14-18 years old | 80 |
| 19-50 years old | 85 |
| **Lactation** | |
| 14-18 years old | 115 |
| 19-50 years old | 120 |

## How can vitamin C help with the common cold?

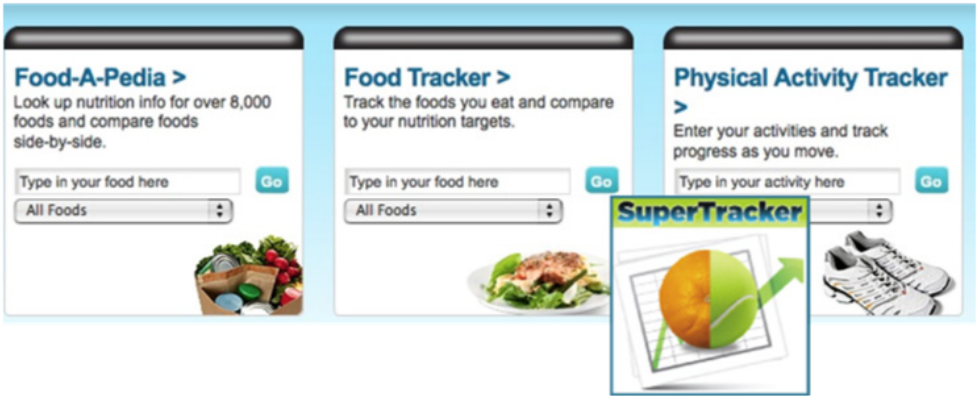
The common cold is primary caused by a virus. The symptoms include: runny nose, stuffed-up nose, headaches, sometimes a fever, coughing, body aches and pains, sore throat, sneezing, etc. Because of the symptoms associated with the common cold, many people tend to stay at home and sleep until they feel well, causing them to miss work or school.

Research has not supported the claim that taking vitamin C supplements (200-1,000mg) will prevent the common cold in the general population, although some studies have shown to help prevent colds in athletes or soldiers training in very cold environments, such as the Alps.

- When a person has vitamin C regularly before cold symptoms starts, vitamin C may reduce the duration of the cold, or a person may not feel the effects of the cold for a long period of time.
- Children can experience an even shorter duration than adults if they are taking vitamin C before symptoms appear.
- To date there is not strong evidence that taking a vitamin C supplement as soon as symptoms start will shorten the length of time for which a person may experience a cold. More research is necessary.

## Am I getting enough vitamin C?

To ensure that you are getting enough vitamin C from food sources to meet the recommended intakes, use the USDA's SuperTracker. (See below) You can check the vitamin C level in each food using Food-A-Pedia. Also, Food Tracker helps you monitor your daily intake of vitamin C.




**SuperTracker (website: https://www.supertracker.usda.gov/default.aspx)**

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## Abstract:


This article introduces the facts about vitamin C, such as recommended intakes and its functions. Vitamin C is the most widely promoted supplement against the common cold, however, the use of vitamin C for the prevention or treatment of the common cold remains controversial with research ongoing.



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