

Facts about Vitamin C¹

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Why do we need vitamin C?

Vitamin C, also known as ascorbic acid, has a wide variety of functions in the body. It helps to slow down or prevent cell damage. It is needed to keep body tissues and the immune system healthy. Dietary vitamin C also helps the body absorb iron from plant foods.

What happens if we do not get enough vitamin C?

Vitamin C is found in many foods we eat, and deficiency is rare. Scurvy, a disease caused by vitamin C deficiency, was common generations ago. Sailors who lived at sea for months at a time and ate no fresh fruits or vegetables often got scurvy. Today, scurvy is rare in the US, but not getting enough vitamin C may contribute to anemia, and lead to bleeding gums, infections, dry and splitting hair, and poor wound healing.

How much vitamin C do we need?

The following table lists recommended daily intakes of vitamin C. People who smoke need an additional 35 milligrams of vitamin C every day. Three large strawberries provide 33 milligrams of vitamin C.



Figure 1. Fresh herbs are sources of vitamin C. One tablespoon of parsley provides 5 mg of vitamin C.

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How can we get enough vitamin C?

The best way to get enough vitamin C is by eating foods high in this vitamin rather than taking supplements. Fruits and vegetables are the best sources. Rich sources of vitamin C include citrus fruits and citrus fruit juices, sweet peppers, papayas, and strawberries.

What about fortified foods?

Some juices and cereals have vitamin C added. The amount of vitamin C in each product varies. Check the Nutrition Facts label to see how much vitamin C the product contributes to your daily need.

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Figure 2. Bell peppers are excellent sources of vitamin C; red and yellow peppers are the richest sources. Half a cup of red peppers has 95 mg, and half a cup of green peppers has 60 mg of vitamin C. Credits: Dmytro Potapchuk/iStock/Thinkstock.com

How should foods be prepared to retain vitamin C?

Vitamin C is easily destroyed during preparation, cooking, or storage. To retain vitamin C, follow these tips:

- Eat fresh fruits and vegetables as soon as possible after buying them.
- Cut vegetables just before eating or cooking.
- Cook vitamin C-rich foods quickly in as little water as possible.
- Microwave, steam, or stir-fry to retain the most vitamin C; do not overcook.



Figure 3. Just one medium-size orange has almost enough vitamin C to fulfill the daily needs of an adult woman. Credits: Viktor Malyshchyts/iStock/Thinkstock.com

What about supplements?

Healthy individuals who eat plenty of fruits and vegetables rarely need vitamin C supplements. Contrary to popular opinion, taking vitamin C supplements does not prevent colds (Hemilä and Chalker 2013). However, some studies show that vitamin C supplements may decrease the duration of a cold (Hemilä and Chalker 2013; Ran et al. 2018).

How much is too much?

If you take a supplement, do not get more than 2000 mg/day of vitamin C from foods and supplements. Although excess vitamin C is mostly eliminated in the urine, high doses can cause headaches, frequent urination, diarrhea, and nausea. People with a history of kidney stones, particularly men, should avoid high levels of vitamin C (Ferraro et al. 2016; Thomas et al. 2013).

Where can I get more information?

Your local UF/IFAS Extension Family and Consumer Sciences (FCS) agent may have more written information and nutrition classes for you to attend. Also, a registered dietitian (RD or RDN) can provide reliable information to you.

Reliable nutrition information may be found on the Internet at the following site:

<http://www.nutrition.gov>

References

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Table 1. Recommended daily intakes (mg/day) of vitamin C by life stage.

Life Stage	Amount (mg/day)
Men, ages 19+	90
Women, ages 19+	75
Pregnancy	80
Ages 18 and younger	85
Ages 19 and older	
Breastfeeding	115
Ages 18 and younger	120
Ages 19 and older	
mg = milligrams of vitamin C Source: (Institute of Medicine 2000)	

Table 2. Food sources of vitamin C.

Food and Serving Size	Vitamin C(mg/serving)
Red or yellow sweet pepper, raw, ½ cup	95
Orange, 1 medium	70
Kiwifruit, 1 medium	65
Broccoli, cooked, ½ cup	50
Strawberries, fresh, sliced, ½ cup	50
Cabbage, cooked, ½ cup	30
Cantaloupe, ½ cup	30
Potato, baked, 1 medium	17
mg = milligrams Source: (U.S. Department of Agriculture and U.S. Agricultural Research Service n.d.)	