

How much vitamin C do you need?

Vitamin C has become popular because of its role as an **antioxidant**, which potentially offers protection from some diseases and degenerative aspects of aging. But there can be too much of a good thing. Taking too much vitamin C can cause side effects such as nausea and diarrhea.

How much is enough may be a difficult question to answer. The Food and Nutrition Board of the National Academy of Sciences is revising its current recommendations for vitamin C intake. In the April 21, 1999, issue of *JAMA*, experts at the National Institutes of Health suggest that the current recommended dietary allowance (RDA) of vitamin C should be increased from 60 mg to 100-200 mg daily. They emphasize that whenever possible, the vitamin C should come from fruits and vegetables, and that people can get the recommended amount by eating 5 servings of fruits and vegetables daily.

Vitamin C is found in foods such as citrus fruits, tomatoes, strawberries, bell peppers, and broccoli. Eating well-balanced meals and foods rich in vitamin C is the best way to get your required intake. A diet rich in fruits and vegetables may also be beneficial in helping to prevent some types of cancer.

WHAT DOES IT DO?

Vitamin C helps body cells grow and stay healthy, including those in bones, teeth, gums, ligaments, and blood vessels. It also helps the body's response to infection and stress, and helps use iron efficiently. If your body doesn't get enough daily vitamin C, you're more likely to have skin bruising, bleeding gums, poor healing of wounds, loosening of teeth, tender joints, and infections.

WHAT IS VITAMIN C?

Vitamin C (also known as **ascorbic acid**) is 1 of 13 major vitamins, which are a group of complex chemicals that your body needs to function properly. It is 1 of the **water-soluble** vitamins, which means that your body uses what it needs and eliminates the excess out of the body.



What foods contain vitamin C?

Strawberries (1 cup, sliced)	95 mg
Papaya (1 cup, cubes)	85
Kiwi (1 medium)	75
Orange (1 medium)	70
Orange juice (1/2 cup)	50
Cantaloupe (1/4 medium)	60
Mango (1 cup, sliced)	45
Grapefruit (1/2 medium)	40
Grapefruit juice (1/2 cup)	35
Pepper, red or green (1/2 cup)	
Raw	65
Cooked	50
Broccoli (1/2 cup, cooked)	60
Kale (1 cup, cooked)	55
Brussels sprouts (1/2 cup, cooked)	50
Snow peas (1/2 cup, cooked)	
Fresh	40
Frozen	20
Potato (1 medium, baked)	25

Source: U.S. Department of Agriculture

HOW MUCH DO YOU NEED?

The current RDA for vitamin C for most people 15 years old and older is 60 mg daily. Among those who need more vitamin C include pregnant women (70 mg), breast-feeding women (90 to 95 mg), and smokers (at least 100 mg). Because vitamin C can't be stored in the body, it is important to replenish it by taking the recommended amounts of vitamin C each day.

IS MORE BETTER?

Some people take large amounts of vitamin supplements because of the belief that these supplements improve health or that they can ward off certain illnesses, such as colds. But there is no convincing evidence to show that this is true. Taking excessive amounts of vitamin C (more than about 1000 mg per day) may cause nausea, stomach cramps, diarrhea, and possibly kidney stones. Discuss the use of vitamin supplements with your doctor.

FOR MORE INFORMATION:

- American Dietetic Association
Consumer Nutrition Hot Line
800/366-1655 or www.eatright.org
- Mayo Clinic Health Oasis
www.mayohealth.org

INFORM YOURSELF:

To find this and previous *JAMA* Patient Pages, check out the AMA's Web site at www.ama-assn.org/consumer.htm.

Additional Sources: American Dietetic Association, *AMA's Family Medical Guide*, *AMA's Encyclopedia of Medicine*

Mi Young Hwang, Writer

Richard M. Glass, MD, Editor

Jeff Molter, Director of Science News

The *JAMA* Patient Page is a public service of JAMA and the AMA. The information and recommendations appearing on this page are appropriate in most instances; but they are not a substitute for medical diagnosis. For specific information concerning your personal medical condition, JAMA and AMA suggest that you consult your physician. This page may be reproduced noncommercially by physicians and other health care professionals to share with patients. Any other reproduction is subject to AMA approval. To purchase bulk reprints, call 212/354-0050.

