



SOUTH COAST MEDICAL CENTER
FOR NEW MEDICINE

C Your Way To Good Health

by Leigh Erin Connealy, M.D.

HEAR THE PHRASE “VITAMIN C” AND YOU MIGHT conjure up images of orange trees, grapefruits and someone shaking an ice-cold container of OJ, fresh from the source, and covered in cool drops of water. Refreshing citrus and maybe even avoiding a cold or the flu- these are things that people generally associate with vitamin C. But did you know that this powerful antioxidant can also lower your risk of heart disease, stroke and even cancer? It’s never been so easy to C your way to good health!

The importance of vitamin C has been known for centuries, going back to the late 1700s when sailors in the British Navy began dying of scurvy caused by a severe deficiency of vitamin C. Vitamin C wouldn’t actually be isolated and identified until the 1930s, but what the sailors knew at the time was that eating oranges could cure scurvy. Today, incidences of scurvy are scarce in the US but can still be found in the elderly population. Symptoms of a vitamin C deficiency include dry skin and hair, gingivitis, easy bruising, wounds that heal slowly, nosebleeds, swollen and painful joints, and a decreased ability to fight infections.

In the nearly 80 years since vitamin C’s discovery we’ve learned enough about the nutrient to fill volumes.



Here are some of the most notable facts about this amazing vitamin...

Vitamin C is a powerful antioxidant.

Antioxidants are nature’s way of fighting off potentially dangerous molecules in the body. Such molecules come in the form of synthetic chemicals such as pesticides, plastics, and chlorine byproducts and are called free radicals. Free radicals are unstable molecules that essentially feed off of otherwise healthy molecules in order to survive. Every day tens of thousands of free radicals are generated within the body, causing cell damage that can lead to chronic and degenerative diseases if left unchecked.

The body sometimes creates its own free radicals in order to destroy viruses or bacteria. To balance out these unruly molecules, the body also creates antioxidants, which have the sole purpose of neutralizing free radicals. The body is only designed to create a certain amount of antioxidants on its own, however, and as we are faced with an ever-growing number of environmental toxins, the body is less capable of fighting off the unwanted harmful invaders.

Vitamin C provides the body with the added antioxidants that are needed to properly wage war against free radicals. Without enough vitamin C, free radicals can spread and eventually lead to stroke, heart attack, arthritis,

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vision problems, Parkinson's disease, Alzheimer's disease and various types of cancer.

Vitamin C is excellent for your heart.

The First National Health and Nutrition Examination Study found that the risk of death from cardiovascular disease was 42% lower in men and 25% lower in women who consumed 300 mg/day of vitamin C. Another study found that patients who took 500 mg/day of vitamin C were able to lower their systolic blood pressure by 9% after 4 weeks. Vitamin C is so good for cardiovascular health that it has also been found to significantly reduce LDL ("bad") cholesterol and increase HDL ("good") cholesterol as well as decrease the number and size of blood clots in veins.

Vitamin C lowers your risk of cancer.

Studies show that high intakes of vitamin C are associated with decreased incidence of cancers of the mouth, throat and vocal chords, esophagus, stomach, colon-rectum and lung. In these studies, the most significant risk reductions occurred in people consuming at least 80 to 110 mg of vitamin C daily. Some studies suggest that even higher amounts may prove to be beneficial. In the Nurses Health Study, premenopausal women with a family history of breast cancer who consumed an average of 205 mg/day of vitamin C had a 63% lower risk of breast cancer than those who consumed an average of 70 mg/day.

In the 1970's and 80's, Nobel laureate Linus Pauling Ph.D. conducted a series of research studies into the effects of vitamin C on cancer. His studies found that extremely high doses of vitamin C (10 grams/day intravenously for 10 days followed by 10 grams/day orally indefinitely) were helpful in increasing the survival time and improving the quality of life of terminal patients. Pauling's findings were exciting news in the medical community and the implications were encouraging for further research. In the 1980's however, the Mayo Clinic tried to replicate his findings and were unable to. For several decades the prospect of vitamin C having cancer-fighting implications was essentially shelved.

All of that changed a few years ago, however, when it came to light that the two studies were

conducted in a slightly different manner: the Pauling study administered the vitamin both intravenously and orally while the Mayo Clinic study only administered the vitamin orally. This led to a 2004 study conducted by the US government's National Institute of Health (NIH), which found that how vitamin C is administered is directly related to how much the body is able to use. It was found that blood concentrations of vitamin C administered intravenously were 6.6 times higher than when the same amount was taken orally. This led the NIH scientists to conclude in their paper (published in the *Annals of Internal Medicine*, April 2005) that, "the efficacy of vitamin C treatment cannot be judged from clinical trials that use only oral dosing," and that, "the role of vitamin C in cancer treatment should be reevaluated". Based on the NIH's conclusions, several studies are currently underway exploring the use of vitamin C in cancer treatments.

Vitamin C can be found in foods, taken orally or taken intravenously. Foods such as green peppers, citrus fruits, strawberries, tomatoes, broccoli, leafy greens, sweet and white potatoes and cantaloupe are especially high in vitamin C. It is important to note that the body cannot manufacture or store vitamin C, therefore it is necessary to make sure that you are getting enough from your daily eating plan and through supplementation. The recommended daily allowance for women is currently 75 mg/day and for 90 mg/day for men. Those who are likely to require more vitamin C daily include people with poor eating habits, those who consume alcohol, diabetics, people exposed to heavy metals and those who smoke. Discuss with your doctor the benefits of increasing your daily intake of vitamin C.

Getting enough vitamin C each day is an easy way to take care of your body and fight off future illness. So grab an orange and C your way to good health!

Dr. Connealy is the medical director of South Coast Medical Center for New Medicine in Irvine, California. The center strives to look at the whole person and explore the effects and relationships among nutrition, psychological and social factors, environmental effects and personal attunement.