While most people are aware that vitamin C can help shorten the duration of a cold, there are a lot of other benefits to be seen with regular intake of vitamin C. Modern medicine is now starting to investigate the effect of mega doses of vitamin C, either intravenously or orally, on flu and other viruses, respiratory illnesses, and other afflictions. While much research remains to be done, the results are very promising.

Vitamin C is especially abundant in many fruits and vegetables, and is a crucial part of a healthy diet. It's extremely important to get the required amount as children are growing. It can aid in iron absorption in the bloodstream, and decrease certain painful conditions, such as gout. It's also a common additive in skin care lotions and anti-aging creams. Studies even show that regular vitamin C intake can decrease blood cholesterol.

Deficiencies in vitamin C are linked with serious problems, such as Scurvy, gingivitis, decreased immune function, and easy bruising.

What Is Vitamin C?

Vitamin C is a water-soluble vitamin known as ascorbic acid. This means that it is disolvable in the body by water. The body uses it to make collagen and other connective tissues, as well as neurotransmitters. It can even act as an antioxidant, to decrease inflammation and to neutralize free radicals.

Benefits

Immune Booster

This is probably the most well-known benefit of vitamin C. Many studies confirm that sufficient intake can shorten the duration and decrease the symptoms of viruses, such as the common cold. Other studies suggest that vitamin C may help reduce the incidence of malaria, pneumonia, and diarrhea as well. (1)

Improved Heart Health

One English study found a lower risk of death from stroke or coronary artery disease with higher intakes of vitamin C. ($\underline{2}$)

Other numerous studies support that a daily intake of 500 milligrams of vitamin C significantly decreased levels of triglycerides and LDL cholesterol. (3)

Powerful Antioxidant

Antioxidants are compounds that minimize oxidative stress and damage to the cells and help fight free radicals, which can cause disease. Antioxidants may help in prevention and treatment of many common chronic conditions, such as autoimmune disorders, heart disease, and even cancer. (4)

Anemia Prevention

Anemia is a condition caused by a lack of healthy red blood cells. This lack of healthy cells has many factors, but one of the most common is a deficiency in micronutrients like vitamin B12 and iron. Symptoms include chest pain, weakness, and fatigue. Vitamin C can act as a co-factor to enhance iron absorption. For best results, combine vitamin C supplementation with a serving of foods rich in iron to increase iron absorption.

Glowing Healthy Skin

As mentioned earlier, vitamin C is a very common additive to cosmetics and skin care products. Those same antioxidants talked about above can also benefit the skin. Vitamin C is believed to help slow the aging process by increasing collagen synthesis and protecting against free radicals caused by UV exposure. Some studies even show that vitamin C may help prevent dark spots and patches by suppressing melanin. ($\underline{5}$)

Reduced Risk Of Gout

Gout is arthritis caused by a build-up of uric acid in the joints, especially the foot and big toe, and causes swelling and painful and stiff joints. Several studies suggest that vitamin C intake helps to lower levels of uric acid in the blood and reduce the chance of a flare-up. (6)

Dosage

Recommended daily intake of vitamin C is age and gender dependent. Here are the daily dietary allowances as laid out by the National Institutes of Health: (7)

0-6 months: 40 milligrams

7-12 months: 50 milligrams

1-3 years: 15 milligrams

4-8 years: 25 milligrams

9-13 years: 45 milligrams

14-18 years: 75 milligrams for males, 65 for females

19+ years: 90 milligrams for males, 75 for females

Smokers should have an additional 35 milligrams daily. As well, pregnant and nursing women should

take 85 and 120 milligrams, respectively.

Vitamin C supplements come in chewable tablets, capsules, and even powder form. Keep in mind, however, that is always best to get your intake from whole food sources whenever possible, as these are more bio-available and nutrient dense than man-made supplements.

With the exception of a slightly increased risk of kidney stones in men, there are no other serious side effects associated with even high or mega doses of vitamin C. Most adults can take up to 2000 milligrams/day and experience very mild stomach upset at most. (8)

Deficiency

Scurvy is the most commonly known condition caused by a severe vitamin C deficiency. It disrupts the synthesis of collagen and connective tissue. While extremely common, and even fatal during the 18th century, it's much less so today and is usually caused by such things as digestive disorders, such as Crohn's disease, which impair nutrient absorption. Smokers also seem to be more susceptible to deficiency.

Treatment of deficiencies usually involves vitamin C supplementation or increased intake through food.

Best Foods

Many foods, but especially fruits and vegetables are high in vitamin C:

- •Strawberries: 1 cup contains 89.4 milligrams (149 %DV)
- Kiwi Fruit: 1 cup contains 164 milligrams (273 %DV)
- Orange: 1 cup contains 95.8 milligrams (160 %DV)
- Pineapple: 1 cup contains 78.9 milligrams (131 %DV)
- Papaya: 1 cup contains 86.5 milligrams (144 %DV)
- Mango: 1 cup contains 45.7 milligrams (76 %DV)
- Grapefruit: 1 cup contains 71.8 milligrams (120 %DV)
- Broccoli: ½ cup, cooked contains 50.6 milligrams (84 %DV)
- Brussels Sprouts: ½ cup, cooked contains 48.4 milligrams (81 %DV)
- Bell Peppers: 1 cup, raw contains 120 milligrams (200 %DV)
- Tomatoes: 1 cup contains 18.9 milligrams (32 %DV)
- Spinach: 1 cup, cooked contains 17.6 milligrams (29 %DV)

Vitamin C In Traditional Chinese Medicine And Ayurveda

These two holistic healthcare disciplines both use vitamin C extensively. Oranges are used to cleanse the digestive system and clarify the blood. They're also used to enhance immune function, increase strength, and reduce fatigue.

Lemons are used similarly for cleansing and detoxifying, stimulating the elimination of toxins from the body by flushing out bile and fluid excretions from the lungs.

Closing Thoughts

- ~ Vitamin C is readily available in many fruits and vegetables.
- ~ Benefits include prevention of anemia, gout and other diseases, as well as promoting heart health, improved immune function, and skin health.
- ~ Deficiencies are rare, but can lead to a condition called scurvy, which can cause slower wound healing, bleeding gums, and fatigue.

~ Although vitamin C supplements come in many forms, it's best to get them through real, whole foods whenever possible.		