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ONCE A DAY VITAMIN C 1000MG

with rosehips & rutin

Effervescent tablets allow for fast absorption of nutrients.

Nutritional Information

One tablet provides:

		*%NRV
Vitamin C	1000 mg	1250
Rutin	10 mg	
Rose hip extract	50 mg	

*NRV = Nutrient Reference Values

Take one tablet daily dissolved in water.



SUMMARY

- High potency 1000 mg.
- With rutin and rosehip for additional antioxidant support.
- Quick releasing for times of increased need.
- Suitable for people who cannot or prefer not to swallow tablets.

DESCRIPTION

Vitamin C is an essential water-soluble vitamin and antioxidant that should be consumed daily. Bioflavonoids work with vitamin C to increase the body's antioxidant defences against free radicals and increase the absorption of vitamin C synergistically².

Vitamin C is needed for the immune system to function effectively. It is required for the activation of Natural Killer cells, and without it their function is impaired. Vitamin C also contributes towards antioxidant protection due to its action as a free radical scavenger.

Vitamin C is required for the adrenal glands to function optimally³, and quickly becomes used up in periods of stress, decreasing immune system capacity and increasing the incidence of infections.

Low levels of vitamin C are associated with increased risk of cardiovascular disease due to its antioxidant properties, and its necessity for the collagen to maintain elasticity in the blood vessel wall.

Vitamin C contributes to collagen production and is needed for the main structural tissues in the body such as skin, gums, bones, teeth and cartilage found in joints.

Vitamin C helps with the absorption of iron, needed for haemoglobin and oxygen transportation around the body.

The current recommendation of vitamin C intake is the minimum amount needed to prevent deficiency symptoms in a healthy adult. This does not take into account chronic stress states, our increased demand in times of illness or heart disease.

STRESS

Vitamin C is needed in times of stress. Some vitamin C is stored in the adrenal glands and is released as part of the stress response³. In times of chronic stress, these stores may quickly become depleted, and need to be replaced.

Decreasing cortisol: Chronically elevated cortisol suppresses the function of the immune system which decreases resistance to infections. Vitamin C decreases symptoms associated with stress. In one placebo controlled trial subjects who took vitamin C had quicker saliva cortisol recovery compared to the placebo group¹². Vitamin C should be considered essential in the management of stress.

IMMUNITY, DETOX & CELL PROTECTION

Immune cells: Vitamin C is required for the proper function of Natural Killer T and B cells. One study showed that vitamin C was able to increase Natural Killer T and B cell function by 10 fold in patients who had their immune cells suppressed by toxins. Vitamin C completely restored immune function⁵. Immune cells accumulate vitamin C, with phagocytes storing the most vitamin C. It is a powerful antioxidant which protects the DNA of immune cells.

Antioxidant: Another mode of action of vitamin C is its electron donation and powerful antioxidant status⁷. It is essential for the immune system that our oxidants are kept in check to prevent an excessive amount of reactive oxygen species (ROS) from damaging the immune cells⁸. One study reported that vitamin C enhances glutathione recovery after an oxidative challenge⁹, protecting the body from oxidative damage even further.

Furthermore, vitamin C effervescent contains rutin, an anti-inflammatory agent. Chronic inflammation within the body can, over time, suppress overall immune function and resistance to disease. Rutin is effective against chronic and acute inflammation⁹.

ARTHRITIS

Anti-inflammatory: Rosehip, containing polyphenols and anthocyanins, is an anti-inflammatory that has been reported to moderately improve symptoms of osteoarthritis¹⁰ and improve associated pain,¹¹. Although the exact pain relieving mechanism of vitamin C is not yet known, it has been theorised that vitamin C is a co-factor in the biosynthesis of amidated opioid peptides. These are the body's natural pain relieving endorphins¹⁴.

Stabilising joints: Vitamin C is required for collagen formation with the amino acids proline and glycine. Collagen is needed in the ligaments and tendons around the joints, and help to stabilise the joints. Collagen is also a major component of cartilage, which becomes worn away in osteoarthritis.

Gout: One study reported the therapeutic benefit of vitamin C in the case of gout. Just after 2 months, blood uric acid levels had significantly decreased¹². Another study confirmed that supplemental vitamin C intake is associated with a decrease in the risk of developing gout¹³.

CARDIOVASCULAR HEALTH

Cholesterol: Vitamin C effervescent works in multiple ways to help protect cardiovascular health. Its powerful antioxidant action helps to prevent the oxidation of cholesterol and moderately lowers cholesterol, helping to prevent and slow the progression of atherosclerosis¹⁵ and improving endothelial function¹⁶.

Blood vessels: Vitamin C is required for the maintenance of collagen, a large structural part of the blood vessel walls. Collagen is required to maintain the flexibility of blood vessels which is essential for normal blood pressure. Some short-term trials have showed that vitamin C supplementation reduced both systolic and diastolic blood pressure¹⁷. Furthermore, vitamin C effervescent contains rutin and rosehip bioflavonoids both exerting an antioxidant effect. Antioxidants slow the process of cellular ageing by providing free radical protection to the cell and helping to slow down the ageing process of the cell telomeres^{18,19}. With age and oxidation, telomeres shorten, leading to lower collagen production increasing the risk of cardiovascular disease²⁰.

COLLAGEN

Vitamin C is required to hydroxylate proline and lysine which creates procollagen. Procollagen is converted into collagen by 3 enzymes. Collagen is the main structural component in the body. Collagen is particularly important for the health of the bones, teeth, skin, gums and blood vessels.

Bone health: It helps to maintain structure and flexibility in bones and teeth. Collagen holds the minerals in place creating strength and resistance to breaking.

Dental health: Vitamin C deficiency is a major contributor to bleeding and inflamed gums and can eventually lead to tooth loss. One of the symptoms of scurvy is bleeding gums. This is due to the loss of collagen.

Skin: Collagen is what creates elasticity in the skin and protects against wrinkling and sagging. Decreased intakes of vitamin C leads to premature wrinkling.

WHY IS THERE ROSEHIP AND RUTIN BIOFLAVONOIDS IN VITAMIN C EFFERVESCENT?

Bioflavonoids (natural pigments) increase the absorption of vitamin C within the body. One study compared different forms of vitamin C with and without bioflavonoids, or a placebo and studied the absorption rates. Ascorbic acid with bioflavonoids had the greatest absorption rates¹.

HOW SHOULD VITAMIN C EFFERVESCENT BE TAKEN?

Take one tablet daily dissolved in water.

ARE THERE ANY PRECAUTIONS BEFORE OR WHILE TAKING VITAMIN C EFFERVESCENT?

Vitamin C effervescent is intended for adults and is not suitable for:

- Children;
- Individuals with kidney disease.

Consult your doctor before taking vitamin C in combination with any prescription medication.

FEATURES

- High potency.
- Provides 1000 mg per tablet.
- Plus rutin and rosehip.
- Dissolves quickly for fast nutrient absorption.
- Natural orange flavour.

HEALTH NEEDS



STRESS AND HECTIC
LIFESTYLE



IMMUNITY



SENIOR'S HEALTH



JOINTS AND
MUSCLES



DETOX & CELL
PROTECTION

SCIENTIFIC REFERENCES

1. Am J Clin Nut.1988;4:3:601-604
2. Food Chemistry.2007;104:2:466-479.
3. Am J Clin Nut.2007;86L1:154-149.
4. J. Nutr.2000;30:1:63-69.
5. Pak J Biol Sci. 2015;18:1:11-8.
6. Immuneopharmacology and immunotoxicology.1997;19:3.
7. Curr Top Med Chem. 2011;11(14):1752-66.
8. J Biol Chem. 2007 May 25;282(21):15506-15. Epub 2007 Apr 2.
9. LL Farmico. 2001;56:9: 683-687
10. MMW Fortschritte der Medizin.2007;149:27-28: (Suppl):51-56
11. Osteoarthritis and Cartilage.2008;16:9:965-972
12. Arthritis and rheumatology.2005; 52:6:1843-1847 13
13. Arch intern med.2009;169:5:502-507.
14. J Transl med.2017;15:77
15. Atherosclerosis. 2014 Jul;235(1):9-20
16. The lancet Volume.1999;354:9195;2048-2049
17. Am J Clin Nutr.1993;57:2:213-217
18. Trends in Biochemical science. 2002;27:339-344
19. AJHG.2009;85:6:2009:823-832
20. Hypertension. 2004;43:182-185