

THE INGREDIENTS IN LIFE-C EXERT ANI-INFLAMMATORY AND NEUROPROTECTIVE EFFECTS

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This is the first in a series of articles that will examine the beneficial properties of IMMUNE⁺⁺⁺. When you read the IMMUNE⁺⁺⁺ label, you will find a rich variety of ingredients that directly support the immune system and overall health. Our series of articles will go over these beneficial ingredients one at a time. Today we are going to see why vitamin C is very important. We will also show how and why the Life-C Blend in IMMUNE⁺⁺⁺ performs exceptionally well when compared with other brands of just vitamin C.

One tablet of IMMUNE⁺⁺⁺ contains what is considered a good amount of vitamin C. Two tablets, which is the recommended usage on the label, provides 1000 units of vitamin C— a good mega amount that is enhanced with lipid metabolites and bioflavonoids. Let us look at why this is a unique formula and review vitamin C and its importance.

Vitamin C was one of the first vitamins promoted to be taken in dosages beyond the Recommended Daily Allowance (RDA) by Dr. Linus Pauling, a two-time Nobel Prize winning biochemist.¹

Why do we need vitamin C daily or better yet, twice daily?

- Humans, guinea pigs, monkeys, some birds and some fish are the only animals that lack the enzyme that synthesizes vitamin C. It therefore must be obtained from the diet.¹
- Lymphocytes (immune scavenging cells) need approximately 40 times more vitamin C than other cell types. In the cellular world they are very large cells compared to other cell types.
- Lymphocytes are very active at destroying and engulfing unwanted, harmful and foreign materials (viruses, bacteria, mutated and dead cells). They have a high metabolism and depend on vitamin C for these reactions.
- Vitamin C is involved in hundreds of chemical reactions in the body.
- Humans who do not obtain enough vitamin C develop the serious disease of scurvy, in which the synthesis of connective tissue containing collagen is defective.¹ Scurvy symptoms include:
 - Swollen and bleeding gums with loosened teeth¹
 - Stiffness and soreness of joints¹
 - Bleeding under the skin¹
 - Slow wound healing¹
- For centuries, scurvy was common among sailors on long sea voyages where no fresh fruit was available. In 1753, Scottish naval surgeon James Lind showed that scurvy was prevented and cured by ingestion of citrus juice.¹
- Vitamin C is a water-soluble vitamin and tends to be used up daily.



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Why is IMMUNE+++ Life-C Blend a “state-of-the-art” formulation?

Life-C Blend is pure vitamin C combined with citrus bioflavonoids and lipid metabolites.

- Because vitamin C is water soluble, combining with lipid metabolites enhances and extends its bioavailability.
- The lipid metabolites act as carriers to increase intestinal absorption, tissue distribution of vitamin C and enhance the speed of its assimilation by cells.
- A study conducted at the University of Miami, School of Medicine found the average vitamin C level was higher over a 24-hour period in the group of subjects taking the Life-C form than those who took other forms of vitamin C. Other forms included ascorbic acid, calcium ascorbate, and calcium ascorbate-calcium threonate-dehydroascorbate brands.
- The Miami researchers also showed that the level of C-reactive protein (a marker of inflammation) and oxidized low density lipoprotein (LDL, bad cholesterol) decreased when healthy volunteers took Life-C.
 - Researchers found that 24 hours after taking Life-C, the serum level of C-reactive protein decreased by 15.6 percent, suggesting that Life-C decreased inflammation, thus providing protection.
 - The study showed that LDL dropped 8.4 percent after 24 hours, suggesting that Life-C contributes to cardiovascular support.

Why does IMMUNE+++ contain Life-C Blend with Bioflavonoids?

Vitamin C is more beneficial when combined with bioflavonoids. These are the natural compounds found in the rind of citrus fruit that synergistically work with the vitamin. They crosslink vitamin C with collagen in connective tissues, maintaining optimal structuring in the skin, joint tissues and blood vessels. Citrus fruits are among the most valuable functional diets shown to lower oxidative-damage to the cardiovascular system.^{2,3} When oxidative damage occurs in the blood vessels, it creates a nick or small wound, so to speak. Inflammation occurs as the body tries to send cells to repair the situation. This almost causes more damage and blockage (inflammation) when it is continual, similar to a wound that won't heal. The antioxidant constituents of citrus fruits, such as ascorbic acid and flavonoids, scavenge reactive oxygen species (ROS) and hence prevent ROS accumulation and oxidative damage to the blood and heart vessels.^{3,4}

Evidence from population studies and randomized controlled trials has supported a protective role for several dietary flavonoids in relation to a number of age-related continuing conditions, including those involving blood and heart vessels, blood sugar maintenance, and neurological and cognitive functions. They are shown to help by exerting anti-inflammatory and neuroprotective effects.⁴ Thirty-seven older adults (mean age 67) that consumed flavanone rich orange juice daily for eight weeks showed a much better and statistically significant improvement in cognitive function.⁵

In conclusion, it is clear that not all vitamin C is created equally. Life-C Blend has been shown to be quickly absorbed, effective in decreasing inflammation and supportive of cardiovascular and immune functions.

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