Why Mag'C™ is the BEST!

The simplest and most available form of Vitamin C is ***Ascorbic Acid***. However, the chemical reality of ***Ascorbic Acid*** will always make its bioavailability and absorption a problem because it is ***water soluble***. In the body, the uptake of a water soluble vitamin is quick but its penetration of the cellular membrane limited. Unlike Vitamin E, a fat soluble vitamin, Vitamin C is NOT stored in the body which means that an individual must consume large quantities of this vitamin and at regular intervals.

Intensive Nutrition's Mag'C™ formula consists of **Ascorbyl Palmitate**, a Vitamin C ester**.** What is an **ESTER**? An ester is a specific type of chemical bond which in this case renders Ascorbic Acid ***both*** water **AND** fat soluble.

What are the advantages of being both fat and water soluble, or to use the correct term, a bipolar molecule? Let's make an visual comparison between **Ascorbyl Palmitate** and a substance we are all familiar with: laundry detergent. When dirty clothing is washed, laundry detergent penetrates the fibers of the clothing and can remove dirt and oil residues because it is a bipolar molecule. It can attach itself or dissolve both lipid (oil/fat) and water substances. ***Ascorbyl Palmitate*** works using the same chemical principle. It is absorbed quickly by the aqueous environment of our bodies, but because it is fat soluble it also penetrates the bilayer of human cells much more readily.

Communication with the cell layer is quite important as this is the area believed to be directly affected by oxidation. **Ascorbyl Palmitate**, working at the cell membrane, has been shown to provide anti-oxidant action potential comparable or even greater than that of Vitamin E! It also acts synergistically with Vitamin E, helping to regenerate the Vitamin E radical on a constant basis.

Some other thoughts….

BUYER BEWARE! A recent study conducted by Carol S. Johnston and Bing Luo of Arizona State University[1] compared simple Ascorbic Acid to EsterC® and Ascorbic Acid with added Bioflavonoids. Results revealed that the bioavailability of Ascorbic Acid in human subjects after an 8 hr. ingestion period, was ***the same*** as that of EsterC® and Ascorbic Acid with added Bioflavonoids

The results reveal that the components of EsterC® (a mixture of calcium ascorbate, dehydroascorbate, calcium threonate, xylonate, lyxonate and perhaps an **"ester" in name only**) and the Bioflavonoids added to Ascorbic Acid, ***DO NOT promote greater bioavailability*** of Vitamin C in the body. And ultimately what this study tells us is that simple ascorbic acid, even when combined with other components to increase bioavailability, will only have premium absorption when converted into an ester form, that is, when it is both water and fat soluble.

1. Carol Johnston and Bing Luo. "Comparison of the absorption and execution of three commercially available sources of Vitamin C" Journal of the American Dietetic Association , p. 779 Vol. 94, No.7; 1994.