
Calcium ascorbate



RECOMMENDATIONS - Calcium ascorbate is suitable for active, growing children, pregnant ladies or any person with increased calcium needs. Other people that would benefit from calcium ascorbate include athletes or people with very busy lifestyles that do not have time to consume a nutritional diet filled with calcium rich foods.

PRECAUTIONS - Calcium ascorbate is not recommended as a routine supplement. There is a need to be cautious of excess calcium consumption - a build up of calcium can predispose to gall stones, kidney stones, liver damage and brain damage.

OTHER INFORMATION - Good sources of calcium in our diets include dairy foods and green leafy vegetables.

The adult RDA for calcium is 850mg or 1.2g for pregnant ladies. Eleven Biological Therapies measures of calcium ascorbate is the equivalent to 1.2g of calcium which exceeds the RDA for most people. Calcium ascorbate is alkaline and will help neutralise an over acid stomach.

Ascorbic acid



RECOMMENDATIONS - Ascorbic acid is generally only recommended for any people who cannot tolerate the other forms of Vitamin C. It is relatively safe for adults to take in large amounts.

PRECAUTIONS - It is recommended that any people taking ascorbic acid as an oral supplement should rinse their mouths thoroughly or brush their teeth properly after use to avoid damage to their teeth. Ascorbic acid is not recommended for people who suffer from gastric problems such as ulcers, hyper acidity, hernia, indigestion, esophageal reflux, or any other condition relating to increased acid levels. Ascorbic acid is not recommended as a Vitamin C supplement for children.

OTHER INFORMATION - Ascorbic acid is a very acidic form of Vitamin C. Its acid level is higher than that of cola and can contribute to the decay of teeth.



Biological Therapies

www.biologicaltherapies.com

If you require further information about these products or where to obtain them, please phone our customer liaison officer **Toll Free** on **1800 063 948**.

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Which Vitamin C is right for you



**VITAMIN C & MINERAL
SUPPLEMENTS IN SOLUBLE
ORAL POWDERS**



Biological Therapies

1800 063 948

About Vitamin C

Most animals manufacture Vitamin C, BUT HUMANS CANNOT. Only the guinea pig, fruit bat, one species of salmon and a few other isolated species of animals share this inability to manufacture Vitamin C. To manufacture Vitamin C within the animal body requires four different enzymes to react with glucose. This Vitamin C then becomes tagged with several different minerals in the body. When under stress the animal body can produce up to 100g per day of Vitamin C. Due to an enzyme deficiency, man and the other primates cannot manufacture Vitamin C. Therefore it must be consumed as an essential nutrient. Nature suggests that we require quite high levels of Vitamin C for routine and stress biochemical reactions.

There are many different brands of ascorbates in the market place. They are derived from a few sources including corn starch and sugarbeet to which some people are allergic. All Vitamin C used by Biological Therapies is derived from sago palm. It is extremely rare for people to develop an allergy to sago palm. Biological Therapies powdered Vitamin C has no artificial colorings, flavourings, fillers, lubricants or preservatives. They are 100% pure and what is on the label is what is in the product.

All Biological Therapies Ascorbate powders contain measures to deliver a small but accurate dose of Vitamin C. Depending upon the powder, this dose is somewhere between 1g and 1.4g of Vitamin C which should produce no bowel discomfort. This makes these powders a viable and purer alternative to Vitamin C tablets.

C-Salts EFFERVESCENT



INTRODUCTION - C-Salts has been formulated to mimic what happens in the animal body. The Ascorbic Acid produced in animals immediately reacts with minerals to form mineral ascorbates of potassium, sodium, calcium, magnesium, zinc, manganese and other trace elements. These essential minerals and Ascorbate, as mineral ascorbates, are directly delivered to the seventy trillion cells throughout the body. The intracellular ratio of mineral ascorbates is potassium; sodium; calcium; magnesium - 100:5:3:2. So, there is a great advantage in consuming an Ascorbate product that is high in potassium and also contains some calcium and magnesium. Sodium has been excluded for those who may be concerned with hypernatraemia. Zinc has been included because of its intimate association with Ascorbate in stimulating the immune system.

C-Salts is relatively neutral having the pH of mineral water, thus being gentle on the stomach. C-Salts is effervescent due to the chemical interaction of ascorbic acid and the mineral carbonates in solution, producing a refreshing, tangy drink.

RECOMMENDATIONS - C-Salts is recommended as a Vitamin C supplement for almost everybody. It is suitable for most age groups and can be used in megadose therapy.

PRECAUTIONS - As with all Vitamin C, the consumption of too much C-Salts can cause gas and/or diarrhoea in some people. For people wishing to consume very high megadoses of Vitamin C, greater than 20 to 30 grams per day, the Ascorbate of choice in general (see precautions) should be sodium ascorbate.

Sodium ascorbate



RECOMMENDATIONS - Sodium Ascorbate is suitable for use for almost everybody as a routine supplement. It is also recommended for very high megadose therapy, other than for those with severe kidney dysfunction or are known hypernatraemics (high blood sodium level). It can be safely taken by people on low sodium diets in amounts up to 12g sodium ascorbate per day.

PRECAUTIONS - Severe kidney dysfunction or a known hypernatraemic.

OTHER INFORMATION - Some people do not like to take sodium ascorbate because they believe that too much sodium is not good for them. Up to 200g of sodium ascorbate has been administered intravenously without having any effect on blood pressure or causing hypertension. How sodium is handled in the body depends on its co-ion. The ascorbate anion drags sodium out through the kidneys as its major cation. However, when table salt (NaCl) is consumed much of the chloride remains in the stomach to form HCl and the kidneys must manufacture carbonate and/or bicarbonate to excrete the excess sodium ion.

This production of carbonate and bicarbonate is an ATP requiring reaction and an overloaded kidney/s may find this difficult. In any case the consumption of NaCl can have a significant impact on increasing blood pressure whilst the consumption of an equivalent amount of sodium partnered with ascorbate has virtually no impact on blood pressure (Lancet, 1985). On top of all of this the RDA of sodium for people on a low sodium diet is 1.2g. This is equivalent to taking eleven level Biological Therapies measures (approximately 12g) of sodium ascorbate. Sodium ascorbate is alkaline and therefore will help neutralise an over acid stomach.