

Vitamin C (Ascorbate) and C Cleanse

History of Vitamin C

The story of vitamin C goes back many years to a time when people aboard ships were at sea for periods of time longer than vegetables and fruits could last without proper storage. A mystery illness spread across the ships with symptoms like bleeding gums, muscle degeneration, spotty skin and bone pain. This was later linked to Vitamin C deficiency and the disease identified as scurvy.

A Scottish Naval surgeon James Lind first proved it could be treated with citrus fruit in experiments that he described in his 1753 book, *A Treatise of the Scurvy*. Further research in the 1900s linked other fruits and vegetables with Vitamin C in addition to citrus fruits. Chefs realized that apples turned brown when cut but everything seemed fine before that. They realized that there was some protective substrate present in fruits and vegetables that prevented this oxidation and this was destroyed after cutting. Maybe an **antioxidant**?

The 20th century saw a brilliant Hungarian scientist by the name of Albert Szent-Györgyi discover what we know today as Vitamin C. He stumbled upon this discovery when he realized that the Hungarian paprika his wife used for his not so favorite dish, stayed red even when dried.

Ascorbic Acid

Vitamin C is technically called ascorbic acid (AA) and most of the supplements provide Vitamin C in this form. While this may be acceptable for people who have a high mineral intake, it is best to use it in the **buffered ascorbate** form that does not increase the acid load in the body. Recommended allowances vary from 50-250 mg/day for Vitamin C. This is the amount that can save one from the deficiency disease scurvy and a healthy, vine ripened orange plucked right from the tree will have about this much. But add in commercialization and mass production and you have lost most of the nutritive value. In sum, Vitamin C is vital, yet it is delicate and well protected in whole food only.

Vitamin C/Ascorbate: Is it really a vitamin

Most vitamins perform as catalysts in biological reactions. Technically ascorbate is not a vitamin since it does not function as a catalyst. It is a substrate that the body can regenerate if it is functioning at a healthy, efficient level. An unhealthy individual naturally then is not able to regenerate vitamin C and in effect wastes this nutrient. Stress in various forms like metabolic acidosis, toxic metals, and hormone disruptors further compound this issue and break the regeneration cycle of ascorbate.

How much is ideal?

As mentioned earlier, various ranges exist leading from 50-250 mg/day. Avoiding scurvy is not the sole aim and research has shown through the years that we need more than these stipulated amounts. In the 1960s, Linus Pauling projected a requirement of 9 g/day then modified that to 18g/day. Robert Cathcart followed in the '70s with a recommendation of taking Vitamin C to 'bowel tolerance'. While addressing many more functional needs it still fell short of being an ideal measure of Vitamin C requirement due to side-effects of ramping up the Vitamin C to saturation level and stopping. So, while biochemical individuality was taken into account, it showed that the slow ramping up of Vitamin C was not well received by many. There had to be another way.

Birth of the C Cleanse

In the 1980s Dr. Russell Jaffe identified these needs and presented the *Ascorbate flush* now called the **C Cleanse** as the new 'beyond bowel tolerance' mechanism to identify Vitamin C requirement. Here, Vitamin C in a buffered ascorbate powder form is consumed in increments of 15 minutes till there is a complete evacuation of the gastrointestinal tract contents or a flush/cleanse is achieved (watery stools) and not just taken till the development of loose stools.

There are 3 categories of individuals: the healthy, not so healthy/slightly unwell, and the really unwell/ill. Based on this, the starting dosage of buffered ascorbate can vary:

Healthy: ½ tsp Slightly unwell: 1 tsp. Unwell/ill: 2 tsp.

Helpful tips/hints: If the cleanse is not achieved within 3-4 hours, it is recommended to stop and restart fresh another day at a slightly higher starting dosage. During the process, there will be a point where a fullness or bloating sensation may occur; slowing down or fine tuning the dosage at this point is advised so as not to miss the cleanse end point. It is important to remember not to stop here: continuing to the very end is essential.

Usually, a C cleanse result of ≤4g is a healthy one and a goal for many to achieve. It is not uncommon though to see results of 50, 75 or even 100g. Performing the C cleanse on a weekly basis is optimum and usually the amount increases per cleanse till a plateau is reached and then requirement can decrease to the healthy goal.

Once the C cleanse is performed, 75% of that amount is thought to be the daily requirement, however, for many it may be difficult to do this amount right from the next day and this is usually due to digestive repair need. So, in such cases it is fine to do anywhere between 5-50% of the cleanse dose while digestive repair is initiated. For some it may even be imperative to do 2-3 months of concentrated digestive repair with a minimal dose of buffered ascorbate and then initiate a C cleanse.

Consulting with your health practitioner is important.

For a detailed description of this protocol visit http://www.perque.com/?page_id=728

Oxidative Stress, Autoimmune Conditions and C Cleanse

Oxidative stress, antioxidants, autoimmune disease and chronic degenerative illness have been studied widely though independently of one another. While on the surface there appears to be a disconnect between these conditions, there is in fact, a clear inter-relationship between them and our integrative approach addresses the importance of all the above aspects e.g., we recommend predictive biochemical assessments to assess oxidative risk like measuring 8 oxoguanine and oxidized HDL instead of only total LDL which many physicians still seem to favor.*

It is agreed that the universal antioxidant in the body is ascorbate which protects the others e.g. glutathione, selenomethionine, alpha-lipoic acid and vitamin E. By performing the C cleanse procedure you can identify the risk of oxidative stress and the extent of antioxidant protection.

All autoimmune conditions stem from a loss of immune tolerance and are associated with some degree of oxidative stress. There are many with a loss of 'first line defense mechanisms' and PERQUE Integrative Health strives to help people get to their desired goal of health beginning with the LRA by ELISA/ACT methodology : a precise and predictive test of how to identify loss of immune tolerance.

Together with the C Cleanse and our other tests, supplements, and health strategies, we work to remove obstacles to recovery and stimulate natural repair.

*** Ask about our webinar on inflammation and repair where these terms and tests have been discussed.**