

Vitamin C Flush

How to do an Ascorbate (Vitamin C) Calibration ('C flush') to determine personal need.

Please work with a knowledgeable health care practitioner.

Why an ascorbate calibration is needed to determine physiological need:

The amount of a nutrient we need is determined by:

1. The uptake of the nutrient from the intestines. This is its functional bioavailability.
2. How rapidly we use up the nutrient. This is known as its rate of consumption or biological half-life. This refers to the amount of time it takes for the body to use up half of what it has.

Fully reduced, fully buffered ascorbate has excellent uptake. Just how rapidly this ascorbate is consumed by the body can vary widely. Roger Williams's classic studies show that the time for half your ascorbate to be used up can vary from as long as 30 days in very healthy people to as short as 30 minutes in people who are going through periods of great health stress.

This means that there can be a very large range of the body's need for ascorbate. In other words, to keep the same healthy level of ascorbate, the body's need can range from a few hundred milligrams to hundreds of grams (hundreds of thousands of milligrams). What is confusing for many is that the functional need for ascorbate is wider than for any other nutrient. Keep in mind that Vitamin C is a water soluble nutrient.

So many cellular reactions depend upon ascorbate. This vitamin C, for example, is critical to:

1. Key steps in detoxifying environmental and internal toxins.
2. Generating cell energy ('ATP') so that cell work can be done.
3. Production and transport of protein (the structural elements of the body).
4. The repair of blood vessels
5. The protection of the cell and blood elements from oxidation ('free radical damage').

This all means that proper determination of the amount of ascorbate needed is fundamental to the quickest recovery from poor health and just as important to the maintenance of health. This also means that amounts of ascorbate needed can vary and need to be 'calibrated' or determined on a regular basis.

Which ascorbate product is the best to use?

Ideally, I like a fully reduced, fully buffered, recrystallized mineral ascorbate form of vitamin C that contains a proper balance of the essential buffering minerals: potassium, calcium & magnesium. However, in a pinch I have used plain ascorbic acid powder.

How to do the "Vitamin C Flush"

The best way is to start on an empty stomach, first thing in the morning. Allow yourself enough time in the day to finish the flush just in case you need much more ascorbate than anticipated. While most people saturate their ascorbate need within a few hours, occasionally the need is much greater and it may take a number of hours to complete the ascorbate calibration 'flush.'

Dissolve each 4 grams (typically one teaspoon) of ascorbate powder in four or more ounces of water or diluted juice (juice diluted 1:1 with water). This will be considered a dose - 4 grams. Plan to count and record each dosage. This is important to determine your total intake to induce the ascorbate calibration flush from which your daily need is determined. After dissolving the ascorbate and allowing any effervescence to abate (typically within one or two minutes), drink the beverage.

The amount of ascorbate needed depends on how quickly your body uses up the ascorbate. Below are suggestions for how to best determine your needs based on how healthy you are:

- Typically I start with 1 level teaspoon dissolved in four or more ounces of water, every 15 minutes.
- If I know that the person is suffering poor health I begin with 2 teaspoons dissolved in eight or more ounces of water, every 15 minutes.

If after four doses there is sense of an impending bowel movement, you should double the initial dosage and continue every 15 minutes. Remember to count and track the number of doses and the amount of Vitamin C.

Continue with these instructions at the proper time intervals until you reach a watery stool or an enema-like evacuation of liquid from the rectum. This is as if a quart or so of liquid is expressed from the rectum. ***I like to suggest that you not stop at loose stool.*** You want to mobilize and eliminate toxins from the body rather than mobilize toxins and then allow them to re-circulate. Continue at least one or two more doses.

Alter this initial calibration 'C flush' is complete, stop taking the ascorbate/ Vitamin C for that day. However, if it took more than 50 grams of Vitamin C to reach the "flush", you should consider at least 10% of your total vitamin C (the

total amount to reach the flush) in the later afternoon or evening so you will not run out of ascorbate over night. In other words, if it takes 50 grams of ascorbate to induce the 'C flush' then take 5 grams in the evening of the day on which you do the initial calibration.

Many people find that preparing a "batch" of ascorbate allows for easier, more timely consumption of the beverage during the procedure, rather than making up four ounces each time.

Example: 12 teaspoons may be dissolved in 48 ounces water or water-juice liquid. Keep this refrigerated in a capped bottle. Dissolved ascorbate is stable for one day if kept cool or cold and well sealed.

Additional supplementation to consider:

When introducing higher dosages of Vitamin C your cellular machinery works harder and more efficiently. The following supplements may be helpful to facilitate repair:

Consult your practitioner

- Choline: 500 - 1000 mg. twice
- Magnesium (I prefer Glycinate): 200mg. twice daily
- L-Glutamine: 10 grams upon rising, mid-day on an empty stomach and at bedtime
- Probiotics: 5-10 billion bacteria of multiple cultured strains of lactobacillus/bifidobacterium bacteria at bedtime and first thing in the morning.
- B Complex 50 formula: three times daily
- Proanthocyanidins /OPC: 5 mg. twice daily.

For further explanation on how to do this calibration of ascorbate contact your practitioner.

Here's the science behind Vitamin C

Vitamin C (ascorbic acid or ascorbate) is another well known antioxidant cofactor which has received a fair amount of attention from the media in the last few years, especially regarding its ability to limit the number of colds, their symptoms and their duration.

1. Vitamin C has been shown to increase cellular resistance to many common viral infections (most probably due to its interferon-like activity) and enhance specific parameters of immune function.

2. Vitamin C aids in the maintenance of cellular membranes, cellular respiration, the peroxidase system, and the low reduction levels of vitamin E and sulfhydryl enzymes such as glutathione reductase. These functions help to detoxify various drugs and chemicals.

3. Vitamin C is also involved in hormone biosynthesis and maintaining the integrity of connective tissue, collagen, cartilage, capillaries, bones and teeth. Vitamin C is, therefore, important in wound repair and tissue healing and overall bone health.

All of these actions of Vitamin C are related to its antioxidant. The use of Vitamin C in health and disease is controversial, although much less so when one considers the following summary of key facts:

Almost all animals and plants synthesize their own Vitamin C. **Humans, guinea pigs, some monkeys, a species of bat and humans do not make their own vitamin C.** Some of these animals have diets high in Vitamin C-rich foods- fruits and vegetation.

Animals, when adjusted for human size and weight, make the equivalent of 5 to 15 grams of Vitamin C a day, mostly in their livers when stress free. Production can more than double when the animal is distressed but so is consumption. Our genetic ancestors once had the ability to synthesize Vitamin C but lost it millions of years ago. The enzyme that converts glucose to Vitamin C is missing in humans. Scientists estimate that without this mutation we would be making 10-30 grams of Vitamin C a day.

How Much Do We Need?

- Many of us eat only small amounts of Vitamin C-rich foods. Also, our food supply contains less and less Vitamin C because of premature food harvesting, artificial ripening and food processing. Studies of the effects of Vitamin C seem to be confusing.

Generally, when small doses are used (1 gram or less), little to no effects are reported.

When large doses are given (doses of 10-200 grams/day) significant positive changes occur. Almost all conditions, acute or chronic, can have shortened courses and patients respond favorably when Vitamin C is provided. Vitamin C (in the pure state) has virtually no side effects, even when given intravenously in amounts of up to 300 grams per day. You might find the book "**Mind Food & Smart Pills**" by Ross Pelton R.Ph.,Ph.D. interesting for more information on high doses of Vitamin C.

So What Do We Learn About Vitamin C at 'Bowel Tolerance Level'?

This approach to determining your need for ascorbate is based on functional need, calibrated to the individual. This work builds upon the experience gained with 'bowel tolerance' determination of ascorbate need.

As described above, our livers would be making Vitamin C steadily, with increases commensurate with distress, if we had not lost the key conversion enzyme. Thus, for best health, it is important to take ascorbate regularly and steadily. If gas, cramps and diarrhea occur at rather low doses of ascorbate (below 10 grams), possibilities to consider:

1. The body has been so depleted that intestinal cleansing and repair must proceed uptake and assimilation.
2. The killing of abnormal bacteria and the expulsion of toxins from the gut.
3. A deficiency in the absorption and metabolism of factors such as, L-glutathione, and the soluble, active bioflavonoids: Quercetin and proanthocyanidins (OPC).

If your practitioner recommends continued high levels of Vitamin C there are many ways of doing this. I utilize the following:

On successive days, take 75% of the amount of ascorbate that it took to induce the 'flush'. In other words, if it took you 40 grams of Vitamin C to initiate the 'flush' then you would take 30 grams of Vitamin C in divided doses throughout the day. In the day to day world the usual need for a person in a state of good health is 2-10 grams/day.

Conversely, if one wishes to or must stop ascorbate for any reason, it should be withdrawn gradually. Sudden cessation of ascorbate does not allow the body time to accommodate to the change, and the body will continue to metabolize and excrete large amounts. You must reduce your ascorbate level by gradually over a one to two week period (depending on how much you were taking) to prevent this easily preventable phenomenon.

Using the ascorbate calibration flush is important. Many helpful things happen at the ascorbate tissue saturation level that will not happen otherwise. Doses from 50 grams to 200 grams or more a day are usual for immune dysfunction states like cancer, chronic viral and bacterial infections and other serious inflammatory or auto-immune diseases.

I recommend appropriate doses throughout life. We see ascorbate used effectively to charge up the cellular electron pool, promoting cellular healing and

metabolism, purging the body of foreign invaders and providing a base on which to build health. Over a period of ascorbate use, one will find that the amount of ascorbate necessary to achieve bowel tolerance changes and fluctuates. During stress or illness, much higher doses can be taken (and is appropriate to take) than at other times.

As healing occurs and health becomes more balanced, the amounts of ascorbate should also change accordingly. Vitamin C can be useful to you - use it appropriately.

Hints for calculating daily therapeutic ascorbate requirement

To calculate the total amount of ascorbate you require, multiply the number of 1/2 (or 1 or 2) level teaspoons by the number of doses you took. Then multiply this amount by 75% (or 0.75 or three fourths). To convert teaspoons to grams, multiply your total teaspoon value by 4. For example, if you used 1/2 tsp. and used eight doses to achieve a flush, then your ascorbate requirement would be 0.5 tsp. X 8 doses = 4 tsp X 0.75 = 3 tsps. Your requirement would be 3 tsps. or 9 grams of ascorbate. The chart below provides other examples and a place for you to record your information.

The Chart below assumes 1 tsp = 4 grams – Adjust as needed if your ascorbate product yields 3 or 6 grams per teaspoon.

Teaspoons used for calibration dose (a)	Number of doses (b)	Total teaspoons used for calibration (c= a x b)	Total ascorbate used for calibration (d= c x 4 grams)	Daily (75%) therapeutic grams of ascorbate (e= d x 0.75)
1/2	8	4	16	12
1	10	10	40	30
2	14	28	112	84

Outcome Of An Ascorbate Flush

Many people report a subjective sense of improved well-being after the completion of a Vitamin C calibration. This may be of short duration, initially, but it is a promising sign for long term improvement. As toxins are eliminated from the body, it is energized through the action of the ascorbate, and you should feel better far longer periods of time.

Repeat of ascorbate calibration

For most rapid progress, a once per week determination of need is recommended. You should select the frequency that best meets your needs. Repair deficits increase ascorbate needs over time until a consistent need of "C" is obtained. It is best to discuss with your practitioner the right frequency for you.

Issues regarding ascorbate calibration process

Be sure to consume adequate amounts of water (fluid) with each ascorbate dose. The approach described above will help you in this regard. The risk of fluid or electrolyte loss from watery stools is minimized this way. Some people report gas or fullness while doing the Vitamin C calibration 'flush', but that is usually due to dissolving the Vitamin C in too little water or rushing the procedure. Room temperature liquid is best but refrigerated is acceptable. Cramps may occur, though rarely, and it is usually because too little fluid is used to dissolve the ascorbate. If you use 4 ounces of liquid you could easily follow each dose with an additional four ounces.

Thoughts

1. Most people find that the flush is easy to do. Since the amount of time can vary quite a bit, it is best to do your first ascorbate calibration on a day when you can stay home for most of the day. Once you have done an ascorbate calibration/flush, you will have a better idea of how much time you will need to schedule for future calibrations.
2. It takes most people between 3-8 teaspoons of ascorbate, to flush. For some, it may require up to 20 teaspoons, or more, depending on health status and your body's ability to hold and use the ascorbate.
3. Rarely, when toxin burden is particularly high, people remain bloated for the rest of the day of calibration.
4. Occasionally, people have loose stools for a day or so after doing the ascorbate calibration flush particularly when healthier probiotic organisms are needed to grow and repopulate the digestive tract.
5. Some people have reported hot stools that seem to burn the anus after several evacuations, if so, you can use a natural salve, such as a calendula ointment, to soothe the area. The burning tends to cease after the first few times you do the calibration and as toxins are reduced and digestive competence enhanced in the body.
6. People with hemorrhoids, irritable bowel disease or inflammatory bowel disease may find that the ascorbate activates their tissues in the healing process. They may need to increase ascorbate slowly over time before doing an ascorbate calibration.
7. Usually, people find that they feel better than they have in a long time after the first ascorbate flush. Some people report a greater sense of well-being after the second or third flush. The overall consensus is that as time goes on, these

calibrations make people feel increasingly better as toxin burden is reduced and metabolic competence enhanced.

Other Valuable Benefits of Ascorbate

1. Glucose and Vitamin C are similar structurally and it may be that some sugar cravings represent a need for Vitamin C. Taking Vitamin C is often helpful for those cravings when they occur.
2. Ascorbate has a myriad of important functions within an organism and within a cell, including dozens of important functions related to cell repair and division, energy production, and antioxidant effects which neutralize toxins. Vitamin C in large doses is probably the very best general antiviral agent that exists. It may be directly virastatic. We especially recommend it in cases of chronic viral illness, past or present, for example, hepatitis, mononucleosis, EB virus, ARC or AIDS, syndromes like SLE (Lupus), Sjogren's or any of the hundreds of auto-immune and rheumatoid syndromes.
3. In addition, Vitamin C, taken at bowel tolerance levels, strengthens immune system functioning. I prefer that people take Vitamin C in the mixed ascorbate buffered salt form rather than the ascorbic acid form. The neutral pH of the salts is preferable to the acidic form, because it is much better tolerated in large doses, and also serves as a vehicle for supplying useful calcium, magnesium, potassium and zinc.

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