

ABOUT VITAMIN C

Most animals in the world make their own vitamin C. Humans and a few other mammals do not so we must get it from our food. The Canadian Recommended Daily Allowance (RDA) of Vitamin C for adults is 60mg. Gorillas and monkeys get 20 to 40 times as much vitamin C in their diet than the RDA. A 150 pound (72 kg) goat can produce up to 13,000mg of vitamin C per day, more when it's under stress or ill. So it's puzzling that the RDA for humans in comparison is incredibly low. Especially since no one has ever had a toxic reaction to high doses because the body will expel what it doesn't need.

60mg is barely enough to prevent scurvy if you are a very healthy adult...and various forms of scurvy is commonplace in North America. An orange could have up to 65mg, a small lemon 30mg. Going by today's nutrient depleted and deficient foods, we would have to eat close to the equivalent of a bushel of fresh fruits and vegetables daily to get the amount of vitamin C needed to stay healthy in today's toxic world, especially if you have health issues.

Every individual's needs for C is different. Health, age, weight, diet, athletic activity, environment, stress, alcohol, medications, allergies, absorption rate and chronic and seasonal illnesses all play a vital roll in C and nutrient needs. For some individuals, needs can differ from week to week, day to day, and in cases of seasonal allergies and viruses, hour to hour. Over time with regular dosing, your body will get used to having extra C and should you go a day or more without it, you may feel "out of sorts" as it also helps with moods. If you are planning on having a hospital stay, make sure you have adequate C with you as your needs will greatly increase.

You can expect your urine/pee to turn a bright yellow but that doesn't mean that it's "just expensive pee". It takes a little while for the C to get to every one of the trillions of cells in our body. Yellow urine can be caused by the type and amount of C you are using, dehydration (very common) or the digestive system not being as efficient as it should be thereby releasing more C into the colon than you're absorbing. No, C does not cause kidney stones, it actually helps prevent them. It also enhances chemotherapy treatments.

The type of vitamin C makes a large difference, not all C formulations work the same way or are absorbed the same way. The body can only absorb so much C at one time, so dosing needs to be spread through out the day by taking no more than 1000-2000mg (adult) at one time or absorption will be poor and it may cause gas and/or diarrhea (see dosing charts).

If you feel a cold/sore throat coming on, take 1000mg every 15 min (adult, age/weight appropriate for child according to charts) until you reach bowel tolerance or your symptoms go away. Keep repeating each day until all your symptoms are completely gone.

“Take enough C until you're symptom free, whatever the amount may be. But keep the washroom close in case you overdose!”

References:

<http://www.doctoryourself.com>

<https://draxe.com>

others avail on request

Types of C's in Order of Best Absorption Rate

Intravenous (IV): 100% absorption done through a doctor or Naturopath delivering vitamin C directly into your veins. Costly, but for many, well worth the price. High doses from 25,000-100,000mg are very effective for multitudes of conditions.

Lyposomal: Livon Lipo-Spheric® makes a non acidic gel that works extremely well with 98% absorbency directly into your lymph cells instead of through your digestive tract because the C is enclosed in a fat molecule. This is a great alternative to the more expensive IV. Some clinicians have found that smaller oral doses of 5-10 grams of lipo-spheric C often results in a similar clinical response compared to 25-100 grams intravenous C.

Lyposomal Liquid: This is another great alternative for those who achieve bowel tolerance rapidly or have stomach upset from oral vitamin C because it too bypasses the digestive tract being enclosed in a fat molecule. This also works well in conjunction with less expensive C options as the absorption works on a different level. The absorbency rate is about 80-90%

Ascorbyl Palmitate: is also a non-acidic fat soluble formulation similar to lyposomals, available in capsules with higher absorbency rates than powders, tablets or other capsules, but also with a higher cost.

Pure ascorbic powders: can be put into any beverage and sipped through the day. If you're concerned about the acidity, cola soft drinks are much more acidic, even at 10grams C per glass of water. You can use a straw if you're concerned about tooth enamel. This is the most economical alternative and is absorbed much better than capsules or tablets. If you want a buffered powder because of stomach upset, use sodium ascorbate or a pinch of baking soda instead of calcium ascorbate. The amount of sodium will not increase blood pressure or add to edema or swelling of extremities. The absorbency rate isn't as high as lyposomal, but is better than capsules.

Capsules: are easier to digest for some people because the capsule dissolves faster in the stomach than enteric coated tablets. They are a little more expensive than tablets. They have up to about 25% absorbency rate for most people. Bioflavonoids help enhance vitamin C's antioxidant properties.

Tablets: are an inexpensive and convenient alternative to capsules if you have good digestion as they are enteric coated, so the stomach has to work a little harder than capsules to dissolve them. They have about 18-23% absorbency rate for most people. Bioflavonoids help enhance vitamin C's antioxidant properties. Do not get timed-release as it is not as effective and has even less absorbency.

Chewables: try to avoid these for adults as they may contain sugars, artificial flavors and colors. Some brands are more naturally sweetened than others but if this is the only way you can get C into children, then something is better than nothing...especially if they are sick!

C Multi Vitamin Powder Drink Packets: EnerC, EmergenC or others, have 1000mg plus other water soluble vitamins to flavor water. These are great pick me ups and great replacements for juices and pop. These can also be frozen for ice cubes or pop-sicles for kids. While these may contain some sugar, the benefits out way risk.

**Ascorbic acid is pure vitamin C (a "pinch" of baking soda" in your water as a buffer works also)

**Sodium ascorbate is vitamin C with a little sodium as a buffer for less risk of digestive upset.

**Calcium ascorbate is vitamin C with calcium such ie. EsterC. I do not recommend this.

BOWEL TOLERANCE or (C FLUSH)

DETERMINING YOUR DAILY C NEEDS

For some individuals, vitamin C needs can differ from day to day or week to week, and in the case of seasonal allergies, hour to hour.

That's why it's important for each person to determine how much vitamin C they need which is best done every month until you feel very well and all of your symptoms are gone, or is at least stabilized.

The best way to do that is to achieve bowel tolerance. Vitamin C is water soluble and you cannot overdose on it or cause harm. Your body will take what it needs and reject the rest resulting in gas and eventually loose stools. That's when you know your body has all the C it needs. For some people, this is only 5,000mg. For others it can be 100,000mg or anywhere in between. As your health improves, your C needs could become drastically less than when you first started using C.

For this bowel tolerance test, do not take chewables, timed-release or liposomal. Just pure ascorbic acid (it's ok if it contains bioflavonoids), sodium ascorbate. Do not use your own saliva to swallow the tablet/capsule, use only water to wash down the C as adequate fluids are needed for the C to be absorbed. If you have tummy upset very early on, put a pinch of baking soda into your water as it will neutralize the slight acidity of the ascorbic acid. Sodium ascorbate already has a buffer as a neutralizer in it so it shouldn't cause any early stomach upset.

- 1) Schedule a day to be at home with nothing pressing or physical to get done.
- 2) Have a light breakfast and wait 1-1 ½ hours for the food to be digested.
- 3) Take 1000mg of vitamin C tablets, capsules or powder every 15 minutes with a little water.
- 4) Keep track of your dosages and be accurate with your time.
- 5) You can eat lightly if you're hungry such as breads/crackers or protein. Do not eat any fruit or foods containing high amounts of vitamin C as it can throw off the accuracy of the test. You may drink as much water as you wish through this test.
- 6) When your tummy starts to rumble and get gassy, you are close to bowel tolerance. Don't stray too far from the bathroom. Continue with the C every 15 min.
- 7) When you FIRST feel the urge to have a bowel movement, go to the bathroom, as some people may not make it in time as the bowels can move very quickly and forcefully, while other people may not have a dire sense of urgency.
- 8) Do not take any more C (until much later that day if you wish).
- 9) Your daily optimal dosage for vitamin C is approx 75% of the amount you took today, which needs to be divided into smaller dosages through out the day for proper absorption (see charts).

****Note:** if you use different forms of vitamin C daily than you used for the bowel tolerance test, you may be getting much more or much less C daily because different forms of C absorb differently. This allowance needs to be taken into consideration to reach your daily target C dosage.