

COVID 19 PREVENTION
or prevention of severe symptoms if you get infected:
 (apart from washing your hands, social distancing and wearing a mask)
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At a glance:

SUPPLEMENTS	OTHER TIPS
Vitamin D3 - 2,500 - 5,000IU (ideally check baseline levels prior to supplementation)	Reduce Inflammation by eating healthy, keep body weight down, control blood sugar
Magnesium - 400-500 mg (best in the MK7 form)	Avoid: trans-fats, vegetable fats (other than below), sugars, processed foods, excess alcohol, smoking
Vitamin K2 - 100 - 200 micrograms /day	Consume: healthy grass fed meat and butter, fish, avocados, nuts, seeds, vegetables, fruit
Vitamin C - 1,000 - 6,000 mg/day	Get enough sleep
Quercetin - 500 mg 2x/day	Get a healthy amount of sun exposure
Zinc - 15 - 20 mg/day is considered safe	Relax! Meditate, do things that make you happy!
N-Acetyl-cysteine - 600 mg 2x/day	Breathe through your nose!

Explanation:

- 1. Reduce inflammation in your body by avoiding insulin resistance and keep your weight down:** eating a low carb diet, high in healthy fats (cold water fish, grass fed fatty meats, grass fed butter, moderate amounts (2 tablespoons) of extra virgin olive oil, extra virgin coconut oil) and good quality protein. Avoid hydrogenated vegetable oils, any other vegetable oils not listed (they are high in Omega-6 essential fatty acids - Omega 6 oils in excess are dangerous), processed foods, and sugars. Intermittent fasting is also a good way to reduce inflammation (for example the 16-20 hour daily fast with a 4-8 hours during which you eat).
- 2. Optimize Vitamin D Levels:** 85% of the population is low in Vitamin D levels, which puts one at much higher risk for covid-19 complications and death. (NOTE: levels of serum Vit D < 20 ng/mL = 50 nmol/L have a twelve to sevenfold higher risk of death from covid 19 than those with levels above 30 ng/mL)

2,500 - 5,000 (or more) IU Vitamin D is the minimum supplementation dosage for most people to bring levels up to healthy levels, unless you have a lot of **full body** sun exposure. Ideally you can get your baseline Vitamin D levels checked prior to supplementation. **Optimal range of serum Vitamin D is 40 -60 ng/mL.** (Note: the darker your skin colour, the harder it is for your body to make high levels of Vitamin D from sunlight because of the high melanin content of your skin). Once your Vitamin D levels are in the 40 -60 ng/mL range you should lower the dosage of Vitamin D intake. The less full body sun exposure you get, the more you should take.

Studies show that Vitamin D can prevent acute upper respiratory tract infections by 50%.

Magnesium 500 mg/day (bis-glyconate, threonate, citrate, malate and ionic magnesium are good, absorbable forms) (titrate dosage - if you get loose stools you have taken too much) and Vit K2 150 - 200 micrograms/day should be taken together with Vitamin D. Magnesium helps convert Vitamin D into its active form, and K2 helps the Calcium to be pulled out of the

arteries and put into the bones. **Many people will not achieve normal Vit D levels until they add Magnesium to their supplementation.**

People taking blood thinners should talk to their physician about taking Vit K2.

3. Optimise Vitamin C intake: Vitamin C is a powerful antioxidant, and you can take between **1,000 - 6,000 mg/day**. The more stress you have in your life, the higher the dosage you should take. (Note that diarrhoea can ensue at higher levels for some people - should that happen, lower your dosage). You should also eat fresh fruit and vegetables for their Vitamin C content.

Studies show that Vit C can decrease stay in ICU, enhance immunity, IV Vitamin C can help in combating septic shock, and may reduce mortality in patients with ARDS (acute respiratory distress syndrome).

4. Take Quercetin (500 mg 2x/day) and Zinc (up to 20 mg/day): Zinc prevents viral replication of mRNA viruses once the virus has entered the cells. However, zinc needs to get into the cells first - that is where the Quercetin comes in. Quercetin is a zinc ionophore (as is Hydroxychloroquine), meaning that it opens up the cell membranes to allow zinc to actually get into the cell).

Quercetin is a natural substance found in plant foods like onions, apples with their skin on, berries, tomatoes (79% higher in organic tomatoes) and capers.

Zinc is found in high concentrations in nuts, seeds, whole grains, veggies, meat and seafood (sesame seeds (black sesame seeds in particular)).

Other zinc ionophores that increase zinc influx into cells are the malaria drug hydroxychloroquine, and the natural substances epigallocatechin (EGCG - found in green tea) and Hinokitiol

5. N-Acetyl-Cysteine (600 mg 2x/day) (NAC): NAC is a powerful antioxidant and a precursor to reduced glutathione, which you can think of as the body's detoxification mechanism. There is evidence that glutathione deficiency is one of the main reasons for mortality in Covid-19 patients. Glutathione and Vitamin D leads to increased oxidative stress and tends to be deficient in obese patients. These are the patients that are at highest risk for covid-19 complications.

NAC has been used for 30 years as a mucolytic (treats mucus) and to treat paracetamol/tylenol toxicity. NAC stops the chain of oxidative stress in the body which comes about by the attachment of the coronavirus to the ACE 2 receptor in the cells. This begins the cascade of reactions that result in a "Cytokine storm" and endothelial (lining of organs and blood vessels) damage. This in turn is the precursor to the formation of blood clots (thrombi) found to be very problematic in Covid19 patients. NAC is known to have a positive effect on the thrombi formed in severe Covid-19 patients.

Randomised, double blind study in 1997 in 262 people showed that long term NAC treatment (600 mg 2x/day) significantly reduced Influenza symptoms, even though it did not prevent them getting it.

6. Get enough sleep : make sure you are getting enough sleep as this is very important to keep the immune system strong. How much sleep do you need? Until you feel rested - for most of us that is 6-8 hours per night, but some need more or less. If you suffer from insomnia consider taking melatonin (which incidentally is also a very good anti-oxidant and is also being studied for treating Covid-19).

7. Learn to breathe only through your nose: the nose and your sinus cavity are cleverly designed to filter all air you breathe in by two mechanisms. The tiny hairs in your nose (cilia) filter out larger particles like dust. A high concentration of Nitric oxide (NO) is found in your sinus cavities, which is a natural antiviral and antibacterial gas. In fact NO was successfully administered as a gas to treat SARS patients in 2004, and is now being investigated in the treatment and protection against Covid19. The moral of this story is: breathe only through your nose! If you have someone coughing or sneezing in your vicinity, walk away and hold your breath.

For more information on this subject and how to enhance NO naturally, please see: <https://www.asthmawellness.com/buteyko-method>

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