SUPPLEMENTS I TAKE TO BOOST MY IMMUNE SYSTEM & OVERALL HEALTH

This list is not meant to be prescriptive. It's what I, Blake Bars, take for optimal health based on my own research and experience. Of course, you should always look into things for yourself. We all have different nutritional needs. Be sure to talk to your doctor. If your doctor has a strong understanding of nutrition and holistic health, even better. The following info is what I've been learning and applying in my own life over the last few years. I tried to put this list in order of importance for me, particularly in regards to boosting my immune system toward viruses. I take most of this every day, yearround, unless otherwise noted. I do add or replace certain supplements from time to time based on my needs. I highly recommend, the News Release page on the website www.orthomolecular.org. This site is a great resource for information regarding supplements and how to optimize your health and immune system.

Vitamin C - 8,000 to 12,000 mg per day in divided doses

I take 3,000 to 4,000 mg three times per day. If I'm sick I will likely take upwards of 30,000 mg or more throughout the day. Helen Saul Case, daughter of the Andrew Saul, the "Mega Vitamin Man," says that she takes 8,000 to 10,000 mg of Vitamin C per day, and when she's sick she can take as much as 8,000 to 10,000 mg per hour. Two-time Nobel Prize winner and Vitamin C pioneer, Linus Pauling took 18,000 mg of vitamin C per day. According to Dr. Thomas E. Levy, the optimal dose for most adults is between 6,000 and 12,000 mg. According to reports from www.orthomolecular.org and others, ICUs are showing Vit C deficiencies in a large percentage of critically ill COVID patients. Over the last several decades myriad doctors have proclaimed Vit C as a powerful health



and immune booster for preventing and fighting many illnesses including viral infections and respiratory infections. White blood cells carry Vit C to fight pathogens. If you are deficient in Vit C it's like your immune system in shooting blanks. I also try to eat foods rich in Vit C like citrus, broccoli, berries and many fruits and vegetables. Dr. Andrew Saul is famously quoted saying, "Take enough C until you are symptom free no matter what the amount may be."

Vitamin D – 5,000 to 10,000 IU per day

I typically take 5,000 IU per day and will take 10,000 IU per day when sick, run down, exposed, and/or during the winter. Some doctors will have patients take as much as 50,000 IU for 3 days when sick to get their levels up (it's best to get your Vit D levels tested and you can dose your Vit D accordingly). According to Dr. Ryan Cole, Vitamin D is the master key to our immune health, and actually, It is not just a vitamin it is a pro hormone which regulates thousands of genes in our body. Dr. Cole says that a healthy immune system cannot exist without vitamin D within the normal range, that Vitamin D deficiency is immune suppression/dysregulation, and that we should call it "low vitamin D season," not "cold and flu season." Many doctors are affirming Dr. Cole in that Vitamin D deficiency is one of the highest COVID risk factors, and that Normal Vitamin D levels decrease COVID symptom severity and risk for hospitalization dramatically. The further north you live and the darker your skin, the harder it is for your body to synthesize its own Vitamin D, so Vitamin D supplementation is important especially in the winter. Try to get 15 to 30 minutes of sun exposure every day between the hours of 11 am and 3 pm.

Zinc – 30 to 100 mg per day

I take about 50 mg per day normally and 100 mg per day when sick. Medical studies are showing that adequate zinc decreases oxidative stress, reduces inflammation, aids in proper immune function and is key for many other important physiological processes. According to Thomas E. Levy, MD, "Zinc is needed inside the virus-infected cells to stop (COVID) virus replication by inhibiting viral RNA polymerase. I also seek out food sources high in zinc like beans, nuts and whole grains.

Quercetin - 600 to 1,200 mg per day

I take 600 mg per day normally and up to 1,200 mg per day when sick. According to DR. Wes Youngberg, "Quercetin helps zinc enter the cell in order to block viral replications, decreases the virus's ability to infect cells, and has been shown to provide broad spectrum protection against many viruses including SARS." According to studies published by the NIH, Quercetin has many potential health properties including anti-carcinogenic, anti-inflammatory, antiviral, antioxidant, and psychostimulant activities. Quercetin can be found in supplement form and in many fruits and veggies.

NAC (N-Acetylcysteine) - 600 to 1,200 mg per day

I take 600 mg normally and 1,200 mg if sick. According to Dr. Wes Youngberg, "If you do get infected it would be prudent to also take one 500-600mg of oral NAC capsule twice daily which has been shown to greatly reduce lung congestion and also greatly reduce flu like symptoms in those exposed. Many use it for general health maintenance reasons or as a preventive strategy once daily." NAC helps the body produce Glutathione, which according to NIH studies, has ability to inhibit viral replication. When sick I may, also take NAC and Glutathione (500 to 2,000 mg per day) together for optimal results (Glutathione is best in liposomal form or given intravenously). There have been recent efforts by lobbyists to ban over-the-counter NAC and make it prescription-only.

Multi-vitamin

Dr. Andrew Saul says, "It is far cheaper to get vitamins and other micronutrients from supplementation than it is to get those nutrients from foods. I wish that were not the case, but it is. That is why the multivitamin is the biggest health bargain on the planet." Multis contain small amounts of many key nutrients to boost energy, immune system and support overall health. Yes I take a multi in addition to most of these supplements on this list every day.

Probiotic

According to Helen Saul Case, our digestive tract contains a teeming city of beneficial bacteria—with a population that's ten times larger than the number of cells in our body. It is a true symbiotic relationship, one that can positively influence our health while we provide a supportive environment to these microorganisms. Doctors have known for years that these "probiotics" make tiny amounts of some vitamins and can help prevent diarrhea. But the latest research shows that their positive effects on our health may be far greater—influencing how we fare as we age, preventing potentially deadly bacterial infections, and maybe even affecting our weight. Over 70% of the immune system is in the gut. Healthy gut, healthy you. I look for good food sources of probiotics like kombucha and fermented foods like sauerkraut.

Oregano Oil

I don't take this everyday but when I'm sick I will take three times per day. Oregano Oil is one of the most antioxidant rich oils and is very good at supporting immune response to viruses, bacteria and fungus. Take in capsule with food, because the straight oil can burn your esophagus if you don't know what you are doing, and it can be hard on an empty stomach.

Wellness Formula

Combination supplement with too many immune boosting vitamins, minerals and herbs to list. A little powerhouse. This has gotten me through cold and flu season by itself in my early years working here. I take 2 to 3 tablets 3 times per day when ill.

Vitamin A – 10,000 mg per day

According to the NIH, Vitamin A exhibits pharmacological activity in the management of pneumonia. According to Dr. Andrew Saul, "several studies have found that large amounts of vitamin A can reduce the severity and risk of death in vitamin-deficient children with measles, chicken pox, and respiratory viral infections. In addition, very, very high dosages of pure vitamin A (not beta-carotene) have been used in developing nations to reduce the risk of death from pneumonia in children. These dosages are 100,000 IU daily, but for only two days over a month. Lower regular dosages should be helpful, such as 10,000 IU daily. When fighting a cold or flu, consider taking 25,000 to 50,000 IU daily—but not for more than three days. If you are pregnant, do not take more than 5,000 IU of pure vitamin A daily."

Vitamin E – 400 IU per day

According to Dr. Andrew Saul, "Among other things, vitamin E supplementation reduces the oxygen requirement of tissues, gradually melts fresh clots, and prevents embolism, improves collateral circulation, prevents scar contraction as wounds heal, decreases the insulin requirement in about one-forth of diabetics, stimulates muscle power, preserves capillary walls, reduces C-reactive protein and other markers of inflammation." Epidemiological evidence also suggests that a daily supplement of vitamin E can reduce the risk of developing prostate cancer and Alzheimer's disease.

B Complex

According to Dr. Andrew Saul, taking a quality B complex twice a day would provide most adults with a good amount of each B vitamin. Higher, therapeutic doses of individual B vitamins such as niacin may require additional supplementation. Keep in mind: the Bs work together and should be taken together. Any particular B vitamin you wish to take should be taken along with a B Complex. B vitamins play a vital role in maintaining good health and well-being. As the building blocks of a healthy body, B vitamins have a direct impact on your energy levels, brain function, cell metabolism, and can help prevent infections.

Magnesium – 500 mg per day

According to Cardiologist Thomas Levy MD, research also supports there is NO TOXIC amount of Magnesium for the human body. Levy explains that you can determine the optimal amount of Magnesium for you, which can prevent all disease processes, by taking divided doses throughout the day up to bowel tolerance (just like Vitamin C). Start with 500 mg of Magnesium and daily increase by 100 mg until loose bowels occur then back down when that occurs, to the amount you took the day before, and stay on this just below loose bowel dose every day. To learn more about the incredible healing power of magnesium and disease prevention of magnesium, check out Dr. Levy's book published in 2019 *Magnesium: Reversing Disease*.

CLOSING REMARKS

Today, I boost my immune system and overall health with diet, lifestyle and supplementation. These things put me in a strong immune stance from the beginning, and then if I start to feel something coming on, I'm good at hitting the extra supplements right away. Bugs rarely take hold, and if they do, they last a short time and are mild. This is true for my wife and my kids now too. When sick or exposed, we will also be extra careful with our diets, getting plenty of fruit and veg, juices and smoothies from the store, extra minced garlic on our food, and avoiding refined sugar and junk food like the plague. We make sure to get extra sleep and plenty of hydration too. Our goal is to strive toward vibrant health for life. You can do it too! If you aren't doing any of these things, it ok. I didn't get to where I am overnight. It's been many small improvements over several years. Start simple. Focus on one thing on this list at a time. Focus on adding in good things, rather than trying to get rid of all the bad things. Small habits lead to big change over time. Now is the time to put your health first because YOU ARE WORTH IT!