BOOSTING YOUR IMMUNITY NATURALLY IN PREPARATION FOR INFLUENZA AND ILLNESS SEASON

1. Keep your Vitamin D 25 OH level from 40 to 60 ng/ml at all times. Use this calculator to determine the estimated additional Vitamin D you will need to take to reach the target Vitamin D serum level above: **https://grassrootshealth.net/project/dcalculator/**
    a. Although there is no **conclusive** study about Vitamin D intake and influenza prevention, please consider these articles:
        i. **https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2870528/** Epidemic Influenza and Vitamin D
        ii. **https://www.ncbi.nlm.nih.gov/pubmed/20219962** Randomized trial of Vitamin D supplementation to prevent seasonal influenza A in schoolchildren.
        iii. **https://www.bmj.com/content/356/bmj.i6583** Vitamin D supplementation to prevent acute respiratory tract infections: systematic review and meta-analysis of individual participant data
        iv. **https://academic.oup.com/ajcn/article/91/5/1255/4597253** Randomized trial of Vitamin D supplementation to prevent seasonal influenza A in schoolchildren

    I also recommend that you give your infant 400 IU of Vitamin D3 daily. Give your baby who weighs 23 pounds or greater 800 IU daily; your child who weighs 28 to 54 pounds 1000 to 2000 IU a day; your child who weighs 57 pounds to 84 pounds 2000 to 3000 IU daily; your child who weighs 85 to 114 pounds 4000 IU daily; and you child who weighs 115 pounds or more 5000 IU daily. This is especially important during the winter months when colds and flu proliferate. These are moderate doses and should not cause any problems. However, after they have been on vitamin D3 for 6 months, they should get their Vitamin D levels checked, also.
2. Consider taking **N-acetyl-L-cysteine** preventatively from October to March. Research showed that adults with non-respiratory chronic degenerative diseases who took 600 mg of NAC twice a day preventatively had significant reduction of symptoms of the flu even when they got the illness (measured by seroconversion) when compared to the control group who did not take NAC. **http://www.wellnessresources.com/studies/n-acetylcysteine_nac_and_the_flu/**
    a. In order to figure out the pediatric dose, use **Clark's Rule**: take adult dose and multiply it by the child's weight divided by 150. So if the child's weight is 25 pounds – (25 divided by 150 = .167) Therefore, 600 x .167 = 100 mg/dose. The child would take 100 mg twice a day. Anyone who is taking NAC twice a day for 6 months needs to make sure to take vitamin C daily.
3. Decrease or **eliminate sugar** from your diet. Remember that eating bread, crackers, pasta, drinking juice, and eating an excessive amounts of grains, also adds to your sugar load. So this is the time to begin cutting down on sugar intake. Unfortunately this may mean that you and your children do not get to enjoy all the Halloween treats and baked goods most people believe are absolutely necessary to eat around the holidays. However, you do not want to give viruses an entry to your child's body. Eating sugar decreases the strength of the immune system, opens the door, and invites pathological organisms in.
    https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4074336/ Fast food fever: reviewing the impacts of the Western diet on immunity
4. **Increase dietary intake of raw fruits and vegetables**. When the level if micronutrients is not optimal, which can happen with consumption of excessive sugar, and too much processed foods, your body does not protect you against viral or bacterial invaders as well. It also does not transport waste products as well and therefore does not eliminate toxins as efficiently. You run the risk of catching whatever virus or bacteria is going around. Keeping your diet as nutritionally sound is foundational. The higher the phytonutrients in your diet, the more protected you are against disease. Phytonutrients are bioactive nutrients found in fruits and vegetables that enhance the immune system. If you are unable to eat 7 to 13 servings of fruits and vegetables every day,

consider finding a way to get these into your body. Juice Plus is a reputable company that makes organic powdered fruits and vegetables in capsules or chewables that you can swallow, or mix in your favorite beverage and drink every day.

a. **https://drcollins.juiceplus.com/us/en/buy/capsules/juice-plus-fruit-vegetable-berry-blend-capsules**
b. **https://drcollins.juiceplus.com/us/en/buy/chewables/juice-plus--orchard--garden---vineyard-blen-chewables**
c. **https://benthamopen.com/contents/pdf/TONUTRAJ/TONUTRAJ-2-20.pdf** The Antioxidant Phytochemicals of Nutraceutical Importance
d. **https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1369156/** A nutraceutical a day may keep the doctor away
e. **https://academic.oup.com/jn/article/136/10/2606/4746704** Immunity and Antioxidant Capacity in Humans Is Enhanced by Consumption of a Dried, Encapsulated Fruit and Vegetable Juice Concentrate
f. **https://academic.oup.com/jn/article/137/12/2737/4750748** Several Indicators of Oxidative Stress, Immunity, and Illness Improved in Trained Men Consuming an Encapsulated Juice Powder Concentrate for 28 Weeks
g. **https://tinyurl.com/ycjqv36q** Reduction of common cold symptoms by encapsulated juice powder concentrate of fruits and vegetables: a randomized, double-blind, placebo-controlled trial

5. Add **herbs and spices** such as garlic, black cumin, cloves, cinnamon, thyme, allspice, bay leaves, mustard, and rosemary to your foods because they help you fight infections. **https://www.ncbi.nlm.nih.gov/pubmed/15180577** Antimicrobial and chemo preventive properties of herbs and spices.
6. **Omega-3**:
    a. Supports a healthy inflammation balance
    b. Enhances the function of T cells and B cells making for a more robust immune response
    c. Improves antibody production and response to pathogens
    d. If you trust the provider, consider eating one serving of wild salmon every week
    e. I prefer Algae Omega-3 instead of fish oil
        i. **https://www.nordicnaturals.com/consumers/algae-omega** Nordic Naturals
        ii. **https://secure.source-omega.com/source-of-omega-3/** Source Omega International
7. Drinking **green tea every day** is a great way to fight the flu. If you do not like the taste of green tea, try mixing it in a shake or adding it to peppermint tea.
    a. **http://www.ncbi.nlm.nih.gov/pubmed/21832025** Green tea consumption is inversely associated with the incidence of influenza infection among school children in a tea plantation area of Japan.
    b. **https://www.ncbi.nlm.nih.gov/pubmed/16582024** Beneficial effects of green tea—a review.
8. Using **soap and water** to wash your hands is very important. Some studies found that washing your hands with green tea may help prevent transmission of the flu better than washing with the alcohol based hand wash.
    a. **http://www.ncbi.nlm.nih.gov/pubmed/22451404** Evaluation of antiviral activity of a green tea solution as a hand-wash disinfectant. I probably will not be making green tea to carry with me.
        i. Personally I use **Thieves hand sanitizer** when I cannot use soap and water. I used Thieves Foaming Hand Soap at work.
9. I rub a little **Thieves essential oil** on the bottom of my feet and at least twice a day during the flu season.
10. Daily **saline nasal flushes**

11. I also recommend using two nasal sprays:
    a. **Xlear nasal sprays** to make the mucosal lining of the nostrils healthier and more resistant to airborne viral infections. For infants, use the squirt bottle and put 2 drops in each nostril three times a day. **http://www.ncbi.nlm.nih.gov/pubmed/11027360?dopt=Abstract** The osmolyte xylitol reduces the salt concentration of airway surface liquid and may enhance bacterial killing.
    b. **Colloidal Silver nasal spray:** Two sprays in each nostril twice daily during the flu season helps to discourage viruses from landing. Do not overdo; the silver spray can dry out the nasal mucousa.
12. Get sufficient **sleep and rest**
13. Drink abundant **clean, filtered water** daily
14. Stay physically active but **do not over-exert**. Over exercising increases oxidative stress, which will lower resistance to infection.
15. If you are especially sensitive to the histaminic properties of dairy, then decrease your milk and dairy intake during the cold and flu season. What I mean by that is that some people actually produce more histamine when they eat dairy and that causes them to make more mucus. Mucus is sticky and attracts more germs.
16. Buffered **Vitamin C** 500 to 2000 mg daily.
17. Preventative Probiotics daily to enhance immunity and keep the GI tract healthy. **http://pediatrics.aappublications.org/cgi/content/abstract/124/2/e172** Probiotic Effects on Cold and Influenza-Like Symptom Incidence and Duration in Children
18. **Zinc** 3 mg to 15 mg daily for otherwise healthy children during the cold and flu season. Adults can take safely 30 mg zinc daily.
19. Take time each day to **meditate** and contemplate beauty, goodness, health, healing, and truth for yourself and others. Create your reality by speaking positively and expecting good things to happen. I pray **Psalm 91** over myself and my family every day.
20. You do not have to do everything on this list. However, the more you do, the more you will enhance your immunity.