**Supporting your immunity during the coronavirus pandemic**

Many patients, friends and family are seeking answers as to how we can help ourselves in preventing this coronavirus. I will share ideas that may help. It is hard to give accurate dosages of the following list of nutrients due to the different brands and products people use. **I am available to tailor supplement protocols to your specific needs, by appointment either in-office or via skype.**

Disclaimer. I want to clarify that to date there are no double-blind studies that prove nutritional and homeopathic remedies cure or treat the COVID -19 virus. The following list is provided to help support you in your efforts to boost your immunity

1. **General Immune support**. Boost your immunity by maintaining a healthy diet. Stop eating sugar! Sugar and high glycemic processed foods challenge and weaken your immune system. Concentrate on healthy eating by increasing all vegetables and if you eat meat, getting the best grass- fed organic sources you can find. Those of us who are over 60 years old may make fewer digestive enzymes and/or stomach acid necessary for more complete digestion. Keep it simple by adding apple cider vinegar and digestive enzymes with your meals to assist you with digestion.
2. **Probiotics**. Probiotics support immunity and can limit respiratory infections. I suggest a broad spectrum probiotic along with a healthy daily dose of fermented foods.
3. **Vitamin D**. Low vitamin D levels may contribute to acute respiratory distress syndrome. The proper amount of vitamin D contributes to overall respiratory health. If your lab results indicate a low vitamin D you should add a healthy dose (4000-5000IU/day) to help with immunity. I believe fat soluble vitamins should be taken together, to help maximize absorption. I recommend cod liver oil caps, which have some vitamin E and A, along with a vitamin D supplement, vitamin K, and krill oil. If possible, take them with a meal.
4. Vitamin C is a powerful antioxidant that aids the immune response and is important in limiting respiratory illness. Since we do not make our own vitamin C, so we must get it from foods and supplements. I feel that Cataplex C or liposomal vitamin C are probably two of the most absorbable forms. In China they are treating patients with high doses of IV vitamin C for the CVID-19 outbreak with some success. Oral vitamin C should be at a dose of at least 500-5000 mg, depending on the product used.
5. Glutathione. Although glutathione is made in the body, dietary and environmental factors may deplete stores throughout the body. Glutathione body stores decrease in the elderly. Glutathione and its precursors help bolster the immune system while inhibiting viral replication and decreasing symptoms. It has been used to limit damage to the respiratory system. I use a glutathione which has NAC (n-acetyl cysteine), liposomal glutathione, and S-acetyl glutathione which help in replenishment of glutathione in the body.
6. **Homeopathic medicines**. I look towards India for some guidance with homeopathic medicines. 100 million Indians use homeopathic medicines for their health. They have recommended that all patients start with Arsenicum album 30 for the first remedy. Indian homeopaths used it successfully during the 2009 swine flu epidemic**. It is not yet known if it is a key remedy for the symptoms of this pandemic**. The Indian, European and American homeopathic doctors are adding information and testing remedies daily. I will keep you informed of any updates I receive.
7. Andrographis is an herb used to fight respiratory infections, both viral and bacterial. It aids in limiting coughs and is a good choice for any chronic viral infections. It seems to be very protective against viral infection of the lungs.
8. Curcumin/turmeric is effective in reducing inflammation throughout the body. Coronavirus and influenza can cause an increase in inflammatory response that complicate viral infections affecting the lungs. We refer to this as a cytokine storm which can lead to pneumonia. Curcumin decreases over productive cytokine expression.
9. Echinacea may be helpful in all conditions related to viruses and bacteria, colds and flu, sore throats and other respiratory complaints. Echinacea was the most frequently used plant by early Native Americans. It was used to improve weakened immune systems.
10. Licorice root has been found to protect human lung cells from some types of influenza. It is very anti-viral. In some in vitro studies it inhibited the replication of the SARS-related coronavirus.
11. Calendula is used both for skin health and to limit fevers associated with influenza.
12. St. Johns wort (hypericum) is useful for wound healing and antiviral activity, especially for enveloped viruses such as the influenza A virus.
13. Thuja has an antiviral effect against several different types of viruses, both within the body (enteroviruses) and on the skin (such as viruses that cause warts). It is a component often used with echinacea to recover and prevent illness. I especially like the essential oil that can be used both for its antiviral effect and calming effect on the body and mind.
14. Transfer factor multi immune: Transfer factors are small proteins that are effective against a variety of pathogens, including some viruses. I rely on a combination of transfer factors combined with colostrum, arabinogalactan, maitake and shitake mushrooms, zinc, selenium, beta glucans and green tea extracts. This combination supports the immune system during acute health challenges.

Okay. Several patients want to know what I do each day to prevent viruses, colds and flu. I do my best to avoid all sugar and processed food. I eat tons of vegetables with each meal. I drink bone broth daily. Koda (my dog) and I are walking 2-5 miles per day. I take transfer factors each day, along with turmeric/curcumin and boswelia to balance blood sugar and decrease inflammation. I take liposomal Vitamin C, Cataplex C, and liposomal glutathione each day. I use Andrographis, licorice root, and echinacea daily. Three times per week I take Vitamin D along with vitamins K, Cod liver oil, and krill oil all with a meal. I meditate each morning and ground my energy before seeing each patient. This all sounds like a lot and isn’t for everybody. I follow this protocol so I can be present for my patients without getting sick.