



BrainDefend®

**IMMUNE BOOSTING
ANTI-MICROBIAL PROTOCOL**

Dear Reader,

In the next few pages you'll discover a list of immune boosting and anti-microbial supplements that I have utilized in my work with patients and clients over many years. They have been a lifesaver for me too.

In one way or another, the various supplements work by either boosting your immune system and/or by warding off viral, bacterial, and fungal infections.

Of course, we are all vulnerable to such infections, and there may be underlying health issues that increases that vulnerability.

Stress and chronic diseases associated with aging such as pulmonary disease, diabetes and cardiovascular disease will undermine the integrity of our immune system and its ability to mount a strong and effective response to pathogens we are exposed to on a daily basis.

Certainly, the current pandemic has raised the awareness of needing to be extra careful and disinfecting against possible exposures to the coronavirus (SARS-CoV-2). Boosting your immune system through nutrition, supplementation, stress modification, and exercise are core elements to sustaining a healthier immune system.

While some of my recommendations such as vitamin D and A can be useful for everyone, the optimal dose should be personalized.

If you need my support on what may be an ideal dose for you, let me know and I will be happy to set up a complimentary consultation with you. There is a link at the bottom of page five where you can schedule a Complimentary Discovery Session.

Blessings!

Ralph Sanchez, MTCM, CNS, D.Hom.
BrainDefend® LLC

TheAlzheimersSolution.com
BrainDefend.com
TheDetoxCode.com
TheDiabeticBrain.com

Immune Boosting Anti-Microbial Protocol

- **Nanonized silver**—liquid and gel. Select silver nanoparticle (Ag NPs) products are patented and FDA-cleared and approved by the EPA. They are premier anti-microbial products that have been the subject of many studies and are used in healthcare settings.

Silver gel products for topical use can be applied liberally around your eyes, nose, and mouth.

Nebulizer therapy with silver nanoparticles may also be useful in respiratory conditions.

Colloidal silver is useful too, but it is not as effective and stable in solution which has been associated with argyria (skin discoloration) when overexposed.

- **Vitamin D** supports immune system and inhibits chronic inflammation. 2,000 to 5,000 daily or more may be required to maintain optimal blood levels of 25(OH)D. Monitor your blood levels of 25(OH)D!

Ralph's guidelines for blood levels of 25(OH)D

- 30 ng/ml to 40 ng/ml—adequate but may be sub—optimal
- 40 ng/ml to 50 ng/ml—may be sufficient and more desirable
- 50 ng/ml to 65-70 ng/ml—optimal in the average person

Vitamin D levels (25(OH)D) greater than 100 ng/ml are considered potentially harmful.

Vitamins such as vitamin D should be personalized based on your specific needs. Lab assessments can provide yet another layer of personalization that can optimize ideal dosing.

- **Chinese herbal formulas**—**Yin Qiao San** and **Xiao Chai Hu Tang** (Minor Bupleurum Decoction)* for viral infections, and...
Jade Screen Formula* for building immune defense against viral pathogens.

*(consult with practitioner as there many other equivalent or more ideal formulas depending on your present condition—especially if you have a history of respiratory weakness or disease)

- **Western herbs and formulas**—e.g., Elderberry, Lomatium, Echinacea, Olive leaf, and many other complimentary herbs and formulas that combine western and Chinese herbs.

Herbal adaptogens (e.g., licorice root, holy basil, rhodiola, astragalus, ginseng) boosts immunity by stimulating immune cells, balancing the endocrine system, and building resilience to stress.

- **Artemisinin**—derived from *Artemisia annua* L. (sweet wormwood). *Artemisia annua* L. has a long historical and medicinal use in traditional Chinese herbal medicine therapy for "febrile diseases." Several varieties of artemisia have been used for millennia.

Artemisinin extract (Qinghaosu) was developed in China as an antimalarial drug in the 1970s.

Apart from the antiparasitic benefits of artemisinin, studies has shown it to be an effective antiviral, antifungal, and antibacterial extract, and it provides a significant antioxidant and anti-inflammatory benefit. Its use has been investigated in cancer and autoimmune disorders.

While *artemisia annua* is a relatively safe and relatively mild herbal, artemisinin should only be used under the guidance of an experienced practitioner. Higher doses are toxic.

- **Berberine** (e.g., berberine sulfate)—long historical medicinal use in Chinese medicine. Inhibits pro-inflammatory pathways and promotes a healthy immune response of both innate and acquired immune system.

Powerful broad-spectrum anti-microbial that is a prime gut anti-bacterial and antifungal agent.

Shown in many studies to also impart antiviral activity against several viruses including influenza viruses.

- **Probiotics** are vital to the therapeutic maintenance of our gut ecology and mucosal immunity (gut—associated lymphoid tissue). The gut is the largest immune organ in the body, and 60% or more of our immune system is localized in our digestive tract which protects against harmful pathogens, synthesizes key nutrients (B vitamins), and protects against inflammatory diseases. Probiotic formulas that provide 50 to 100 billion CFUs daily are recommended in bolstering the immune system.
- **Mushroom extracts and formulas**
This link from my store fulfiller, Fullscript has a nice overview on the “Top 8 Mushrooms For Immune Health”
<https://fullscript.com/blog/mushrooms-for-immune-health>
Fullscript store: <https://us.fullscript.com/welcome/TheAlzheimersSolution>
- **Garlic extracts** that are processed and standardized to contain bioactive compounds (allicin/ajoene) that are immune boosting and have anti-fungal, anti—bacterial, and anti—viral benefits.
- **Choline**—choline is an essential nutrient needed in several critical biological processes including methylation reactions, fat metabolism (e.g., phospholipids), liver function, brain development, and neurotransmitter synthesis.

Dietary and supplement sources of choline serves as a key precursor nutrient for the synthesis of acetylcholine (acetyl coenzyme A + choline). Acetylcholine functions as an important chemical (neurotransmitter) that is secreted by nerve and immune cells.

In the central nervous system, acetylcholine is essential for memory and learning mechanisms. In the body, it is secreted by nerve cells at neuromuscular junctions (synapses) in order to initiate muscle contraction.

It was only recently discovered that immune cells also synthesize utilize acetylcholine to activate responses against infections. Virus-attacking T-cells—a type of white blood cell (lymphocyte) are triggered by acetylcholine to invade tissues and kill virus-infected cells.

- **Quercetin**—numerous studies have shown that quercetin inhibits viral infections and replication, and lung inflammation associated with viral and bacterial infections.

- **Glutathione**—Reduced, liposomal, or S-Acetyl Glutathione.
The latter two forms are more bioavailable and more efficiently replenish intracellular glutathione which is critical for immune function. In studies, glutathione has shown that it blocks the replication of many types of viruses.
- **Selenium**—enhances immune competence and is essential for the integrity of immune system responses. Selenium is an essential component to glutathione peroxidases that protect against oxidative stress and inflammation associated with viral and other microbial infections. Selenium deficiency is linked to the increased incidence and severity of several viral infections including influenza and HIV.
- **Amino acids**—lysine, arginine and glutamine. Deficiencies of these amino acids, and others are linked to impaired immune system and inflammatory responses.

Lysine and arginine supports the integrity of the thymus gland, which produces precursor (progenitor) cells that mature into T—cells (thymus-derived cells) that are the primary cells that attack and kill viruses, bacteria, and cancer cells. The thymus is a central organ (lymphoid organ) of the immune system.

Glutamine, cysteine, and glycine are utilized in the synthesis of glutathione in cells of the body and brain.

- **Vitamin C**—3 to 5 grams daily for immune support. In some cases, a “vitamin C flush” is extremely beneficial. Recommended read: <https://www.fxmedicine.com.au/blog-post/naturopathic-vitamin-c-flush>
- **Vitamin A** (e.g., retinyl palmitate)—dose can only be recommended through a consult. Vitamin A is a top respiratory/immune health nutrient and should be taken when ingesting higher doses of vitamin D.
- **Zinc**—25 mg. daily and in many cases up to 50 mg is desirable when an individual is zinc deficient.
- **Vitamin B** complex—B5, B6, B9 (folate), and B12 are well documented in boosting immune system function.
- **Vitamin E**—deficiency is associated with impaired immune response. Vitamin E supplementation (tocopherols/tocotrienols) has been shown to enhance immunity.

- **DHEA** —increase the levels of many types of immune cells in aging individuals including monocytes, T and B cells, and Natural Killer cells.

DHEA and cortisol have opposing effects on the immune system, DHEA enhances immunity while cortisol suppresses it.

The DHEA to cortisol ratio is also a major indicator of immune system health, and immunosuppressive ratio of cortisol to DHEA increases with age.

- **Melatonin**—like all hormones, levels of melatonin decline in aging. Melatonin stimulates and modulates the production of many types of immune cells of both the innate and acquired immune systems.

Provides significant antioxidant and anti-inflammatory protection in many degenerative diseases including respiratory disease and acute lung injury.

- **Other options** include, homeopathic formulas (Oscillocochinum for influenza), essential oils* (e.g., Red thyme, Cinnamon)

* Recommended essential read on oils for immunity...

<https://fullscript.com/blog/essential-oils-for-immune-health>

Resources:

You can find professional grade supplements at my store and once you register, you will be assigned a 10% discount. Feel free to browse the Catalog once you have registered!

Store: <https://us.fullscript.com/welcome/TheAlzheimersSolution>

Complimentary consultation:

<https://www.TheAlzheimersSolution.com/Personalized-Consulting>



About Ralph Sanchez

Ralph Sanchez, MTCM, CNS, D.Hom. has authored two books, *The Diabetic Brain In Alzheimer's Disease* and *The Improved MIND Diet*.

Ralph has twenty-five years of clinical experience and has spent nearly two decades intensively researching the risk factors and related etiologies of Alzheimer's disease.

To find out more about Ralph and his personalized body-brain health consulting program—BrainDefend®, please visit the **www.TheAlzheimersSoluon.com** or **BrainDefend.com** and schedule a Complimentary Discovery Session at:

<https://www.TheAlzheimersSoluon.com/Personalized-Consulting>