# THE BOTTOM LINE ON SUPPLEMENTS

FOR A HEALTHY IMMUNE SYSTEM AND FOR COROL RUS





# SUPPLEMENTS FOR A HEALTHY IMMUNE SYSTEM AND FOR CORONAVIRUS

Although there's presently no cure for COVID-19, we know one thing: Those who have a stronger immune system seem to recover better than those who do not.

The Akasha Center's doctors have analyzed the available **scienced-based supplement recommendation** to streamline the process for you.

Our goal is to help you navigate the world of which supplements work vs the ones that do not, but have become part of the rumors.

We have divided our recommendations into two categories:

- A- STRENGTHENING THE IMMUNE SYSTEM
- **B-TREATING COVID-19 POSITIVE PATIENTS**
- C- 10 TIPS ON HOW TO MANAGE ANXIETY

The recommendation for each category are listed below. In addition to taking supplements that have been scientifically researched, eating healthy, exercising regularly, staying well-hydrated, and getting 7-8 hours of sleep, learning how to relieve stress will help you strengthen your immune system.



#### A- STRENGTHENING THE IMMUNE SYSTEM

#### VITAMIN C

**Vitamin C:** Vital to the function of white blood cells that fight infections (leukocytes), **vitamin C is also essential for iron absorption**. Iron deficiency can make you more vulnerable to infections. A cup of orange juice, sliced orange, or a cup of sweet peppers, tomato juice, or a kiwi contains about 80 to 90 mg of Vitamin C.

Although taking vitamin C before getting a cold may decrease the severity and duration of your symptoms, it will not prevent you from getting a cold. High doses of intravenous vitamin C, are <u>currently being</u> tested in COVID-19 patients with pneumonia. Vitamin C may potentially help people who are critically ill on ventilators. (<u>Hemila J Intens Care 2020</u>).

**Side effects:** There may be <u>severe risks</u> with high doses of vitamin C. In addition to causing gastric distress and diarrhea, high doses over the long-term may increase the risk of cataracts and ALSO reduce the effectiveness of certain medications and blood tests.

Recommended dose: Vitamin C 3000-6000mg per day

<u>Vitamin C 1,000</u> available at Akasha Naturals



#### VITAMIN D

Vitamin D taken daily, in moderate doses, may help reduce the risk of respiratory infections. A recent Italian <u>study</u> reported that adequate <u>vitamin D</u> levels decrease the risk of **COVID-19** infection.

Getting sun exposure, at least three times a week for about 20-30 minutes, and taking a vitamin D supplement is a safe and preventative measure for **protecting against respiratory infections.** 

To boost low levels of vitamin D, higher doses of 5,000 IU a day is generally required.(children/news)

Recommended dose: Vitamin D 5000iu per day

Vitamin D 5000 + K1 & K2 at Akasha Naturals



# ZINC

Zinc deficiency is very common, specially in the older population. **Supplementing with 20 mg per day may** help prevent respiratory tract infection,
as suggested by a study of nursing facilities patients in France.

Others who may be low in zinc include vegetarians and people on certain medications that reduce stomach acid.

The daily requirements vary by age, but for adults, it is about 10-30 mg daily. (zinc-containing foods). In addition, Zinc enhances the bioavailability of Vit C.

Recommended dose: Zinc 10-30mg per day

Available at Akasha Naturals

#### NAC (N-ACETYL CYSTEINE)

This amino acid is converted to the powerful "scavenger-like" antioxidant glutathione. NAC may improve specific blood markers of the immune system.

A <u>clinical study</u> using 600 mg of NAC taken twice daily during the flu season found that fewer infected people were symptomatic. (excelahealth.org/health)

Recommended dose: NAC 1,200-1,800 mg per day

Available as Methylation Support at Akasha Naturals



Studies have suggested that some ingredients in specific essential oils have shown antiviral activity. Although more research is needed.

VATURALS

ethylation

For nasal cavity protection, we recommend using Eucalyptus oil. Place a drop unto a cotton tip and gently coat the inside of your nose.

DO NOT insert the cotton tip past the entrance of your nasal cavity to avoid any damage. Alternatively, you can place a drop in on your finger and coat the inside of your nose.

Wash your hands with soap before and after. (tandfonline.com)

#### **B- TREATING COVID-19 SYMPTOMS**



First and foremost, do not suffer in silence. If you develop symptoms, such as fever and shortness of breath, immediately isolate yourself and call your physician. Do not go to an urgent care / emergency room unless your physician tells you so. You should also start doing some breathing exercises while in isolation.

In addition to the supplements that we've recommended for boosting your immune system and better fight off the virus, below is the list of supplements we recommend for **treatment**.

#### MELATONIN



Melatonin is a hormone that helps regulate sleep, and has been suggested as a potential treatment for COVID-19. Although more studies are needed, the rationale for its use stems from the fact that it can <u>improve immunity</u> response to inflammation.

Laboratory studies have shown that <u>Melatonin</u> is believed to help regulate cytokines and to reduce virus-related mortality by decreasing the "cytokine storm" that damages the lungs. Cytokine storm is suspected of playing a role in severe cases of COVID-19 (Mehta, Lancet 2020).

Also, because melatonin levels fall both with age and in people with chronic disease, it is believed to be one of the reasons why people in this categories are at a higher risk for COVID-19.

Recommended dose: Melatonin 2-5mg a day or 3-4 or 3-4 sprays inside yourt cheeks at bedtime.

Available at Akasha Naturals



# QUERCETIN

Quercetin has been found in laboratory studies to inhibit a wide variety of viruses, including severe acute respiratory syndrome (SARS-CoV), which is related to COVID-19.

According to preliminary research, quercetin works by preventing viruses from entering cells, thereby reducing "viral load."

A <u>clinical trial</u> investigating the use of oral quercetin in patients with COVID-19 is underway in China.

Most clinical studies use quercetin (GI-align-225- source) 500 to 1,000 mg per day in 2 divided doses.

Caution: There are potential side effects and interactions with a variety of drugs, including rosuvastatin (Crestor), atorvastatin (Lipitor) and pravastatin (Pravachol).

Dose Quercetin: 500mg - 1000mg twice a day

Available at Akasha Naturals





#### GARLIC

Garlic has been shown in laboratory studies to inhibit particular flu and cold viruses. A <u>clinical</u> <u>trial</u> <u>suggested that garlic supplements may help prevent colds.</u>

However, there is no current evidence that <u>taking a garlic supplement</u> can help prevent or treat COVID-19. <u>Coronavirus disease (COVID-19)</u>

#### POTASSIUM



<u>Potassium</u> (K) is believed to **play a significant role in the treatment of COVID-19.** This seems to be even more important for people taking diuretics (water pills) for high blood pressure.

Doctors in China reported that among a group of 175 hospitalized patients, 78% had low potassium levels. They have recommended three grams of potassium daily to help correct this deficiency.

**Food Sources:** Bananas, beans, squash, and potatoes. Deficiency, other than in people taking certain medications affecting the kidneys or the GI system is uncommon.

Individuals taking potassium-sparing diuretics (such as spironolactone), ACE inhibitors (such as captopril), or antibiotics like trimethoprim/sulfamethoxazole (Septra) should not take K supplements without medical supervision because dangerous levels of K may develop.

**Note:** Do not stop taking such medications without discussing it with your physician.

(Danser, Hypertension 2020; de Simone, Eur Soc Cardio 2020).

# **COCONUT OIL**



Preliminary research is underway on **the antiviral effects of lauric acid** and its metabolite monolaurin found in coconut oil.

A clinical trial is on-going using virgin coconut oil (3 tablespoons daily), monolaurin (800 mg daily), and/or monocaprin (800 mg daily) in patients with COVID-19. (study website)

#### **ASTRAGALUS**

Astragalus (huang qi): This herb that has been used in Traditional Chinese Medicine (TCM) for centuries to **strengthen the immune system and treat colds.** 

It has also been promoted as a remedy against COVID-19. **Potent compounds in astragalus may increase the production of white blood cells and other cells crucial to the immune system** (Integr Cancer The).

Astragalus has also been shown to have anti-inflammatory and antiviral effects against a type of coronavirus that infects poultry. (Int J Biol Sci 2020).

**Caution:** Due to its strong immune-stimulating effects, people with autoimmune disease or on immunosuppressant drugs should not take astragalus. It may stimulate histamine release leading to allergic reactions (<u>Upton, Astragalus Root Monograph American Herbal Pharmacopoeia 1999</u>).

Astragalus may also lower blood pressure. It should be used with caution in hypertensive individuals and in pregnant or breastfeeding women (Tond, J Clin Pharm Ther 2014).

# **TURMERIC**



Turmeric is best known for its anti-inflammatory effects.

Studies have shown that curcumin, the active compound in turmeric, can inhibit certain viruses, including one study that suggested that it may also inhibit COVID-19.

In animal studies, curcumin <u>(antiox-restore)</u> supplementation have been shown to protect the lungs from injury and infection possibly by reducing inflammatory cytokines and other mechanisms.

# **ECHINACEA**

According to current research, <u>echinacea</u> may inhibit coronaviruses. But, there is only limited evidence that taking echinacea can prevent or treat coronavirus infections.

A <u>study</u> that has not yet been peer-reviewed found that a particular form of echinacea inhibited specific coronaviruses, including MERS- and SARS-CoVs - and it could potentially have a similar effect on COVID-19. Clinical trials suggest a possible benefit for other types of viral respiratory infections, like colds, although <u>results have been mixed</u>.



# **CBD**



<u>CBD (cannabidiol)</u> has been promoted to help prevent coronavirus. While **CBD** has been shown to <u>inhibit certain</u> <u>viruses</u>, there is no evidence that it can prevent or treat COVID-19. (<u>Cannabinoid Res 2020</u>). CBD is <u>helpful for anxiety</u> and anxiety-related sleep disorders, making it useful for people struggling with anxiety due to the current pandemic. But in a small percentage of individuals, CBD may worsen anxiety and insomnia. **Consult your healthcare practitioner before using it for medicinal uses**.

# APPLE CIDER VINEGAR

Like most kinds of vinegar, apple cider vinegar contains acetic acid, which has <u>antibacterial and antiviral properties</u>.

There is currently no studies that have proved that apple cider vinegar effectively prevents or treats colds, sore throats, or COVID-19. However, anecdotal reports by practitioners indicate that patients experience a decrease in the length of sore throat after gargling with apple cider vinegar twice a day for 3-5 days.





# **ELDERBERRY**

This herb has been shown to **inhibit the replication of flu viruses.** Preliminary trials suggest that taken within the first day of symptoms, **elderberry can shorten the duration of the flu.** But there is currently no evidence that elderberry extract can prevent or treat COVID-19. (Mehta, Lancet 2020).

# ADDITIONAL

#### **Immune Support**

Proprietary blend of Ayurveda and Asian herbs designed to support the immune system against inflammation, cold and flu symptoms.





#### **Active Immunity**

Minimizes the inflammatory and oxidative damage caused by an array of viral and bacterial infections.

#### **Probiotics - Flora Plus**

Almost 80% of your body's immune cells reside in your gut. If you're looking to improve your immune system, your gut could play an important role.





Preliminary studies have shown a link between warm weather and reduced virus transmission.

A recent study (<u>SSRN</u>) reported that 90% of the COVID-19 transmissions have so far occurred within a temperature of 37 to 63°F or 3 to 17°C and high humidity.

According to a study by the Massachusetts Institute of Technology, in areas outside this temperature zone, the virus is still spreading, but more slowly. Several additional studies on the growth pattern of Covid-19 have shown the same: Warm temperature and humidity negatively influence viral growth.

While these studies have not yet been peer-reviewed, they have presented the possibility that the pandemic could ease in parts of the world in the summer but could come back in the fall. If that is true, we will at least have the opportunity to be better prepared.

In the case of the Coronavirus, research has shown that sunlight cuts the virus's ability to grow in half. Although more research is needed to assess how ultraviolet C (UVC) affects Covid-19 specifically, other coronaviruses, such as SARS, have been shown to be sensitive to UVC.

Light in the UVC wavelength can be used for disinfecting water, sterilizing surfaces, destroying harmful microorganisms in food products and in air. Its radiation disrupts the virus genetic material, preventing it from making more copies of themselves.

# CORONA TIPS

#### 1- KEEP CALM!

**2- Do not trust** anything that has not been **scientifically-evidenced.** The following sites will help you stick to the facts:

A- European Centre for Disease Prevention and Control <a href="https://www.ecdc.europa.eu">www.ecdc.europa.eu</a>

B- WHO | World Health Organization www.who.int

C- **Our World in Data** <u>ourworldindata.org</u>

D- Centers for Disease Control and Prevention <a href="https://www.cdc.gov">www.cdc.gov</a>

E- Akasha Center

www.akashacenter.com/patient-services/blog/

- 3. Eat a healthy diet.
- 4. Avoid sugary foods.

The virus, like most of us, loves sugar.

5. Stay well-hydrated.

Drink 8 to 10 glasses of water per day.

**6. Observe physical-distancing without socially isolating.** Talk to family and friends facetime, email, texts... try a family get together via zoom.

#### 7. Exercise.

Stretch, yoga, walks (observing physical-distancing) regular exercise at home is fundamentally important for your health.

- **8. Follow all the guidelines for self protection** and for all those around you.
- 9. Practice compassion and avoid judgment.
  It will keep your stress hormone (cortisol) at bay.
- 10. Limit your use of social media and the news.
  Meditate and/or pray instead when feeling anxious.



# 10 TIPS ON HOW TO MANAGE ANXIETY:

THOUGHTS AND EMOTIONS IMPACT YOUR ACTIONS AND HEALTH.
THE FOLLOWING STEPS WILL HELP YOU PREVENT SPIRALING DOWN.

- 1. Accept reality and take action: Having a plan and taking one day at a time will help you shift your mind from a passive state to an action-oriented one.
- 2. Taking a break from social media and the news will help your brain focus on the right now instead of the what ifs.
- **3. Only follow reputable health organizations** for update information: EDCD, Our World in data, WHO, CDC.
- **4. Regain control**: Make a list. Although you cannot stop what's happening now and the recession that will follow, you can plan ahead.

Create a plan for saving cash or do research on resources you may need if you lose income. Write down a list of how the pandemic will change your life and how it feels.

#### 5. Give yourself permission to feel

Keeping calm may be helpful when interacting with children or family members, but remember to let yourself feel the weight of reality as well.

There's no right or wrong way to feel. Through self-introspection, you may even discover that your anxiety is masqueraded as panic, anger, sadness, stress, depression, or disappointment.



Breaking them all down and identifying them can help you feel better and more in control.

# 6. Identify and address other sources of anxiety

The coronavirus may be dominating our lives right now, but that doesn't mean other priorities are less important. Address them by focusing on other projects that can be both productive, and soothing, but also distracting to you.



#### 7. Connect with those you care about

Turning to others for help can be a great way to get things off your chest.

If you're feeling at a loss, connect with people that you trust and ask for help. Be as specific as you can when telling them what kind of help you need.





#### 8. Maintain a routine for sanity

In times of uncertainty and self-isolation, building routines - so there's structure, normalcy, and comfort is very helpful as it gives you more control.

Taking structured breaks can help signal your brain to shift gears. Keeping your routine, such as, regular meal times, sleep schedule, and daily exercise is a way of taking care of your physical and emotional well-being.

Don't make the crisis the center of your life.



#### 9. Practice Self compassion

Be kind and loving to yourself.

Don't compare your capability to that of others, especially based on limited interactions like work conference calls. Recognize and honor your mental and emotional limits. Take a break from social media and focus on you instead.



#### 10. Exercise to better manage anxiety

If you're anxious and feeling at a loss go for a walk (leave your phone). Get your body moving; maybe try an online exercise class. Research shows that exercise, especially when regular, can help reduce anxiety.

#### **CREDITS**



Edison de Mello, MD, PhD, The Center's founder, Edison de Mello, MD, PhD, is a board certified Integrative Physician by the American Board of Integrative Medicine and a licensed psychotherapist by the California Board of Behavioral Sciences.

He practiced psychotherapy for 13 years before entering medical training and now practices and teaches evidenced- based integrative medicine.



www.akashanaturals.com

info@akashacenter.com / support@akashanaturals.com 1234 6th St Suite #100, Santa Monica, CA 90401

#### The Bottom Line On Supplements - References

- 1. Peng, Z. (2020, March 10). Vitamin C Infusion for the Treatment of Severe 2019-nCoV Infected Pneumonia. https://clinicaltrials.gov/ct2/show/NCT04264533
- 2. Hemilä, H., & Chalker, E. (2020). Vitamin C may reduce the duration of mechanical ventilation in critically ill patients: A meta-regression analysis. Journal of Intensive Care, 8(1), 15. https://doi.org/10.1186/s40560-020-0432-y
- 3. Vitamin C Supplement Reviews & Information. (2020, April 3). ConsumerLab.Com. /reviews/vitamin-C supplement review/vitaminc/
- 4. Moriconi, T. (2020, March 28). Vitamina D contro il Coronavirus? Solo un'ipotesi. la

Repubblica. https://www.repubblica.it/salute/medicina-e-

ricerca/2020/03/28/news/vitamina\_d\_contro\_il\_coronavirus\_solo\_un\_ipotesi-252553760/

- 5. Stöppler, M. C. (2016, August 11). Vitamin D Deficiency: How Much Vitamin D Is
- Enough? MedicineNet. https://www.medicinenet.com/nutritional\_health\_vitamin\_d\_pictures\_slideshow/article.htm
- 6. DeNoon, D. J. (2008, May 28). Kids May Need 10 Times More Vitamin D.

WebMD. https://www.webmd.com/children/news/20080528/kids-may-need-10-times-more-vitamin-d

- 7. Review of Zinc Supplements and Lozenges. (2020, April 14). ConsumerLab.Com. /reviews/Zinc-Supplements-Lozenges-Review/zinc/
- 8. N-Acetyl Cysteine Supplements Review. (2019, July 16). ConsumerLab.Com. /reviews/N-Acetyl\_Cysteine\_NAC\_Supplements/n-acetyl\_cysteine/
- 9. Excela Health Library: N-Acetyl Cysteine (NAC). (n.d.). Retrieved April 22, 2020, from https://www.excelahealth.org/health-library/article?chunkid=21807 &lang=English &db=hlt#ref1
- 10. Pyankov, O. V., Usachev, E. V., Pyankova, O., & Agranovski, I. E. (2012). Inactivation of Airborne Influenza Virus by Tea Tree and Eucalyptus Oils. Aerosol Science and Technology, 46(12), 1295–1302. https://doi.org/10.1080/02786826.2012.708948
- 11. Melatonin Supplements Review & Information. (2020, April 21). ConsumerLab.Com. /reviews/melatonin-supplements/melatonin/
- 12. cannot find the link for the melatonin Mehta study (p. 6)
- 13. Quercetin Supplements Review. (2020, March 31). ConsumerLab.Com. /reviews/quercetin-supplements/quercetin/
- 14. cannot find GI-align-225- source (p. 7)
- 15. Potassium Supplements Review. (2019, March 22).

ConsumerLab.Com. /reviews/Potassium\_Supplements\_Review/Potassium/

16. Potassium Supplements Review. (2019, March 22).

ConsumerLab.Com. /reviews/Potassium\_Supplements\_Review/Potassium/

- 17. Block, K. I., & Mead, M. N. (2003). Immune system effects of echinacea, ginseng, and astragalus: A review. Integrative Cancer Therapies, 2(3), 247–267. https://doi.org/10.1177/1534735403256419
- 18. Yang, Y., Islam, M. S., Wang, J., Li, Y., & Chen, X. (2020). Traditional Chinese Medicine in the Treatment of Patients Infected with 2019-New Coronavirus (SARS-CoV-2): A Review and Perspective. International Journal of Biological Sciences, 16(10), 1708–1717. https://doi.org/10.7150/ijbs.45538
- 19. AHP Monographs Astragalus Root. (n.d.). American Herbal Pharmacopoeia. Retrieved April 22, 2020, from https://herbal-ahp.org/online-ordering-astragalus-root/
- 20. Block, K. I., & Mead, M. N. (2003). Immune system effects of echinacea, ginseng, and astragalus: A review. Integrative Cancer Therapies, 2(3), 247–267. https://doi.org/10.1177/1534735403256419
- 21. Tong, X., Xiao, D., Yao, F., & Huang, T. (2014). Astragalus membranaceus as a cause of increased CA19-9 and liver and kidney cysts: A case report. Journal of Clinical Pharmacy and Therapeutics, 39(5), 561–563. https://doi.org/10.1111/jcpt.12173
- 22. Coconut and MCT Oils Review. (2020, April 11). ConsumerLab.Com. /reviews/coconut-and-MCT-oils/coconut-mct-oil/
- 23. Dayrit, Fabian M., N., Mary T. (2020, January 21). The Potential of Coconut Oil and its Derivatives as Effective and Safe Antiviral Agents Against the Novel Coronavirus (nCoV-2019) Integrated Chemists of the Philippines. https://www.icp.org.ph/2020/01/the-potential-of-coconut-oil-and-its-derivatives-as-effective-and-safe-antiviral-agents-against-the-novel-coronavirus-ncov-2019/
- 24. Echinacea Supplements Review. (2020, March 14). ConsumerLab.Com. /reviews/echinacea review/echinacea/
- 25. Turmeric and Curcumin Supplement and Spices Reviews and Information. (2020, April 18). ConsumerLab.Com. /reviews/turmeric-curcumin-supplements-spice-review/turmeric/
- 26. Turmeric and Curcumin Supplement and Spices Reviews and Information. (2020, April 18). ConsumerLab.Com. /reviews/turmeric-curcumin-supplements-spice-review/turmeric/
- 27. Garlic Supplement Reviews & Information. (2019, January 22). ConsumerLab.Com. /reviews/Garlic\_Supplements/Garlic/
- 28. Myth busters. (n.d.). Retrieved April 22, 2020, from https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters
- 29. CBD & Hemp Extract Supplements Review. (2020, February 15). ConsumerLab.Com. /reviews/cbd-oil-hemp-review/cbd-oil/
- 30. Mabou Tagne, A., Pacchetti, B., Sodergren, M., Cosentino, M., & Marino, F. (2020). Cannabidiol for Viral Diseases: Hype or Hope? Cannabis and Cannabinoid Research. https://doi.org/10.1089/can.2019.0060
- 31. CBD & Hemp Extract Supplements Review. (2020, February 15). ConsumerLab.Com. /reviews/cbd-oil-hemp-review/cbd-oil/
- 32. Mehta, P., McAuley, D. F., Brown, M., Sanchez, E., Tattersall, R. S., & Manson, J. J. (2020). COVID-19: Consider cytokine storm syndromes and immunosuppression. The Lancet, 395(10229), 1033–1034. https://doi.org/10.1016/S0140-6736(20)30628-0
- 33. Bukhari, Q., & Jameel, Y. (2020). Will Coronavirus Pandemic Diminish by Summer? (SSRN Scholarly Paper ID 3556998). Social Science Research Network. https://doi.org/10.2139/ssrn.3556998
- 34. Bannister-Tyrrell, M., Meyer, A., Faverjon, C., & Cameron, A. (2020). Preliminary evidence that higher temperatures are associated with lower incidence of COVID-19, for cases reported globally up to 29th February 2020. MedRxiv, 2020.03.18.20036731. https://doi.org/10.1101/2020.03.18.20036731
- 35. Sajadi, M. M., Habibzadeh, P., Vintzileos, A., Shokouhi, S., Miralles-Wilhelm, F., & Amoroso, A. (2020). Temperature, Humidity and Latitude Analysis to Predict Potential Spread and Seasonality for COVID-19 (SSRN Scholarly Paper ID 3550308). Social Science Research Network. https://doi.org/10.2139/ssrn.3550308