# **Immune Support to Boost Your Protection Against a Covid-19 Infection**

My previous article spoke to steps to **REDUCE** your chances of contracting the SARS-CoV-2 virus. This article is directed at steps you can take to help strengthen your immune system, so that should you become infected by COVID-19, your symptoms are more likely to be milder. These steps should include your current "Four Cornerstone Lifestyles" - Nutrition, Exercise, Stress Management thru Meditation and Sleep. There is overwhelming evidence that each plays a significant role for optimizing and maintaining a healthy immune system.

## **Role of Inflammation:**

Most of the diseases that impact our health and our lifespan are caused by a single underlying unhealthy condition called **Inflammation** (<a href="https://en.wikipedia.org/wiki/Inflammation">https://en.wikipedia.org/wiki/Inflammation</a>). Basically, **inflammation** is the process by which our body responds to an attack or injury and attempts to heal itself, regardless of the cause. Generally, there are two types of inflammation: **Acute and Chronic.** 

An example of *acute inflammation* is a cut or burn on your skin. You can see the inflammation as redness. This redness is due to an increase in blood flow bringing the necessary defense supplies to kill any possible infection and start the healing process. As healing takes place the redness and swelling subside and the only remaining sign of the incident may be a scar.

Using the skin injury as an example, *chronic inflammation* occurs when a residual irritant or foreign body continues to stimulate the immune response. In this case the normal cells that were originally injured cannot be repaired properly and remain chronically damaged or inflamed. When chronic inflammation occurs *inside* the body, (e.g. arteries, brain, joints, intestines, glands, etc.) the affected tissues lose their ability to function normally resulting in disease or malfunction. Cardiovascular disease, dementia, type-2 diabetes, arthritis, auto-immune disease are all examples of the result of chronic inflammation.

One explanation as to why the United States has such a <u>disproportionate higher incidence</u> in both the number of cases and mortality rates of this COVID-19 pandemic (over 190,000 as of this date) is significantly related to the fact that 40% of the U.S. population is considered **obese**. It is currently estimated that "75% of U.S. persons are above their optimal weight, being either over-weight or obese". Studies of the deaths due to COVID-19 show a 3-4 times higher risk of death in over-weight or obese individuals as compared with normal weighing persons.. Why? They often have significant chronic inflammation in their bodies causing (frequently unknown) cardiovascular, metabolic disorders (diabetes), cognitive disorders and auto-immune diseases. Most of these individuals are unaware they are walking health 'time-bombs', <u>until</u> they have a sudden from 'out of nowhere' event, such as a heart attack, stroke or a life-threatening case of COVID-19 strikes them.

The virus, SARS-CoV-2, which causes COVID-19, generally begins when the virus enters the body through certain receptors (called ACE2) in the nose. The virus often then proceeds to spread to the same receptors in the lungs, intestines, kidneys, brain and heart. COVID-19 seems to be two separate illnesses. The first is a mild viral syndrome and seems confined to the respiratory system. Most people beat the virus during this stage. This is when specific *nutraceutical* compounds are helpful, because the body's immune response to the virus is with white blood cells called <a href="Lymphocytes">Lymphocytes</a>. However, if the virus continues to replicate in the body and doesn't get conquered in the mild stage, it is possible that a "cytokine" or "bradykinin" storm or 'out of control' inflammatory response may occur. This is when advanced respiratory symptoms develop, including difficulty in breathing and low blood oxygen levels. These are the patients being hospitalized, put on ventilation support and all too frequently are dying. (Ref: <a href="https://elemental.medium.com/a-supercomputer-analyzed-covid-19-and-an-interesting-new-theory-has-emerged-31cb8eba9d63">https://elemental.medium.com/a-supercomputer-analyzed-covid-19-and-an-interesting-new-theory-has-emerged-31cb8eba9d63</a>)

The two syndromes or stages appear to be distinct from each other. Depending on the amount of initial exposure to the virus (*viral* load) and the strength of a person's immune system the first stage can potentially pass into the second more advanced stage. Even after the initial respiratory illness seems to have passed, there can be lingering symptoms relating to unrealized injury of the lungs, heart, brain and kidneys. Therefore, once COVID-19 is diagnosed the goal is to try to defeat COVID-19 in the first phase and minimize its impact as the second advanced stage is quite difficult to treat.

## **Recommendations for Boosting the Immune System:**

- A Google search for 'immune booster supplements' and/or foods yields numerous choices. I have listed at the end of this E-Blast a selection of research publications pertaining to micronutrients and their biological roles in immune function. Articles are directly linked to their original source. I have highlighted one article for a comprehensive review (download and select PDF version).
- ♦ A simple list of healthy foods can be found at: <a href="https://www.healthline.com/health/food-nutrition/foods-that-boost-the-immune-system">https://www.healthline.com/health/food-nutrition/foods-that-boost-the-immune-system</a>
- My current recommendation for a supplement immune booster is a new product called **Bergamet** Clinical Immune by BergaMet NA, the same company that manufactures my highly recommended polyphenol product, **BergaMet Pro +.** I encourage you to research each of these supplements, most of which are found below Reference Section. (Disclaimer: I have no financial interest in this product, company or any other nutraceutical company)
- ♦ Bergamet Clinical Immune (Dose: 2 caps contain). (CALL (702) 445-7755 to order)
  - **Proprietary Blend:** (Clinical Trials Information @ www.bergametna.com)
    - o Beta-Via Complete 376 mg
    - o Bergamot 47% BPF 500 mg
    - o Alpha Lipoic Acid (R form) ALA 100 mg
    - Olive leaf Extract (20% Oleuropein) 100 mg
    - o L-Glutamine 100 mg
  - Zinc 12 mg
  - Vitamin B6 6 mg
  - Vitamin C. 500 mg
  - Vitamin D 50 mcg
  - Vitamin E 40 IU
  - Selenium 200 mcg
- **Additional Immune Supplements to consider:** 
  - Copper 2 mg
  - Quercetin 500 mg. (https://www.healthline.com/nutrition/quercetin)
  - NAC (N-Acetyl Cysteine) 600 mg
  - Elderberry
  - Zinc additional 20 mg
- **♦ Flu Vaccine** (2020):
  - Get your vaccination NOW
  - If you are 65 years or older, request the Senior Flu Vaccine 2020
  - The flu vaccine will reduce your risk by 40-60% and will reduce your symptoms should you contract an influenza infection.
  - There is no cross immunity with the SARS-CoV-2 virus (COVID-19)

Take care of yourselves, each other and practice safe behaviors.

Warm Regards,

Dr. Gordon Gunn, M.D.

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## (Click on each web link to view article)

## **Vitamins & Minerals**

#### ♦ Vitamin A

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