



# **Post-Spike Protein Exposure Management Protocol**

## **(Long COVID and COVID Vaccine Side Effect Recovery)**

Many today are suffering from the ill effects of spike protein exposure whether having been exposed involuntarily through COVID infection or voluntarily through COVID vaccination programs. A recent study revealed that approximately 1 in 10 Americans are suffering with Long COVID after an infection with Omicron.<sup>1</sup> This translates to an estimated prevalence of millions of Americans now dealing with the debilitating effects of this disease. Long COVID, also referred to as Post-acute sequelae of COVID-19 or Long Haul COVID Syndrome, is a syndrome with many different possible manifestations from generalized fatigue, sleep disorders, hair loss, changes in smell, joint pains, and profound cognitive dysfunction (sometimes termed "brain fog") to name a few.

Here are just a few facts we now know about spike protein and its effects:

1. Spike protein is present in the blood of a majority of patients with Long COVID which suggests that spike protein is likely the causative agent in most cases of LONG Covid.<sup>2</sup> Other sources of spike protein found to have similar effects are the COVID vaccines.
2. Spike protein causes inflammation of blood vessels (endothelial lining specifically) leading to blood clots (heart attacks, strokes, pulmonary embolism, deep venous thrombosis, etc.)<sup>3</sup>
3. The effects of spike protein are dose-dependent which means that the more a person is exposed to spike protein, the more injury and inflammation accumulates.<sup>4</sup>
3. Spike protein slows the brain neuronal function (decreased neuronal bursts observed with S1 protein) which is one of the suspected mechanism for causing "brain fog."<sup>5</sup>
4. Spike protein leads to mitochondrial dysfunction leading to oxidative stress and cell death. The mitochondria are the main powerhouse/energy producer for almost all cells in the human body. Therefore, mitochondrial dysfunction leads to the prominent fatigue of Long COVID and various cardiac abnormalities.<sup>6</sup>
5. Spike protein leads to immunologic dysfunction, hematologic dysfunction, psychiatric dysfunction, and autonomic dysregulation.<sup>7</sup>
6. The more spike protein a person is exposed to (whether from SARS-CoV-2 infection or through vaccination), the higher the risk of death.<sup>8</sup>

The outlined approaches below seek to enhance three main mechanisms for addressing spike protein exposure:

1. Anti-inflammation
2. Spike Protein Degradation
3. Immunity Optimization - to minimize re-infection with ongoing variants.  
Discontinuing voluntary exposure to spike protein through vaccination would be judicious.

With this pathophysiology in mind, here are some simple and useful lifestyle principles that could be applied for someone with Long COVID.

(NOTE: This document has been made available for informational and educational purposes and is not intended to be a substitute for professional medical advice, diagnosis, or treatment.)

### **Edenic Principles for Long COVID Recovery**

While it is tempting to place emphasis on “remedies” and “therapies” for a disease such as Long COVID, we must not forget that there are laws that govern each of our bodies. When we are in violation of these laws, the natural result is an inability to recover and often the development of further disease. Remedies serve the purpose of supporting our body’s God-given ability to remove toxins and heal. Such laws, can be summarized in the simple acronym:

“WANT REST”

#### **WATER**

- **Internal Water Use:** Staying adequately hydrated with pure water from a clean source is essential when attempting to detoxify the body from a toxin such as spike protein or any harmful byproducts created in the body’s attempt to fight against infection. A general rule of thumb to ensure adequate hydration is that the urine should fall somewhere between colorless and the color of light straw and honey. Urine color darker than this is a clear indicator that additional water intake is needed. Adequate water intake allows proper toxin clearance (through the kidneys especially), excellent blood flow to all areas of the body, improves innate immunity & protects mucosal membranes.

- **External Water Use:** The theory behind Hydrothermotherapy in prevention and treatment of COVID spike protein is well documented<sup>9</sup> and water has been used effectively as a tool to combat infectious diseases successfully throughout history. Some examples of using water externally are:
  - **Ice/Cold water immersion** (total 11 minutes per week cumulative)
  - **Hot-cold contrast showers** – 3 minutes hot, 1 minute cold for a total of 3 cycles
  - **Hot-cold contrast baths** – 5 minutes hot (106-114 degree water), then 1 minute cold (60 degrees F or lower), 3 minutes hot, 1 minute cold, 3 minutes hot, 1 minute cold. Can be done whole body up to neck OR a part of the body such as the feet.

## AIR

- **Maintaining Adequate Ventilation** – Found to prevent exposure and transmission of airborne pathogens thus reducing risk of reinfection.<sup>10</sup>
- **Hyperbaric Oxygen Therapy** – Inhibits inflammation.<sup>11</sup>
  - Requires Hyperbaric Oxygen Chamber
  - Maximal Clinical Response: Use of high-pressure chambers (reaching 2.4 ATM) with 100% oxygen for 60-90 minute session.
    - § 5 sessions per week until effect has plateaued.
    - § Uses: Fatigue, cognitive/neurological impairment, pain, and psychiatric manifestations post-spike protein exposure.
- **Respiratory Training Exercises** – Deep Inhalation and slow exhalation. Example: Box Breathing – 4 seconds Inhalation, 4 second Hold, 4 second Exhalation, 4 seconds Hold. Alternative exercise: Maximal inspiration, then add one brief inspiration attempt past maximal, hold for 5 seconds, then slow expiration. Perform this for 10 minutes daily preferably at the beginning of the day and throughout the day.
  - **Breathe through the nostrils**

## NUTRITION

- The data is clear throughout the literature on which diet is the best for chronic disease reversal and enhancing clearance of infectious agents...and that diet is a **whole food plant-based diet** naturally rich in antioxidants and Omega-3 fatty acids.
  - **Whole-Food Plant-Based Diet & COVID infection**
    - § Those on plant-based diets had a 73% lower odds of developing moderate to severe COVID infections, while those on low carbohydrate, high protein diets had a 3.86 greater odds of developing moderate-to-severe COVID.<sup>12</sup>
- **Nattokinase** (taken 500mg 3x/day)
  - Proteolytic enzyme which breaks down spike protein.<sup>13</sup>
  - One randomized, controlled trial found nattokinase effective at lowering the risk of blood clots after long plane flights and also lowering blood pressure.<sup>14</sup>
- **Bromelain** (500mg PO 3x/day)
  - Proteolytic enzyme found naturally in pineapples.
  - Bromelain is a cysteine proteinase that targets ACE-2, TMPRSS2, and spike protein.<sup>15</sup>
    - § Degrades spike protein.
    - § Blocks ACE-2 Receptors and stops re-infection and re-exposure. Inhibits inflammation.<sup>16</sup>
    - § Timing of Bromelain Supplementation: Best taken on an empty stomach. Bromelain is a protease which will be broken down by the body's digestive processes if taken with or right after meals; thus, it is best to take it between meals to optimize its full absorption and experience its full proteolytic properties in the body.
- **Magnesium** (100-400mg PO daily)
- **Resveratrol** (400-500mg PO daily) – a naturally occurring polyphenol with potent antioxidant activity. The best food sources are the skin of grapes or grape juice. Also found in many berries.

- **Probiotics/Prebiotics** – The best prebiotic is fiber. The only source of fiber is plants and fiber intake is best accomplished by a high intake of whole, unprocessed fruits, vegetables, nuts, seeds and whole grains.
- **Vitamin K2** (100mcg PO daily) – Vitamin K2 is normally produced by the body from the Vitamin K1 consumed in the diet. One of the best sources of Vitamin K1 are green leafy vegetables, but especially Kale, mustard greens, swiss chard, collard greens, and spinach.
- **N-Acetyl Cysteine (NAC)** (600-1500mg PO daily or split into 2 doses)
- **Omega-3 Fatty Acids EPA/DHA** (Initial dose 1g/day total EPA + DHA and then increased up to 4g/day) – Avoid fish-based sources of omega-3 due to concurrent mercury toxicity which may prevent full effect. Alternatives: Algae-based omega-3 supplements. The top food-based sources of omega 3s are flaxseeds and chia seeds which can be purchased, ground, and consumed in a smoothie or oatmeal usually at 3 Tablespoons 1-2x/day.
- **Nigella Sativa AKA Black cumin seed oil** (200-500mg capsules PO BID OR in liquid form, but please be cautioned that the taste is pungent).
- **Vitamin C** (1000mg PO BID) – Fruits and vegetables are the best sources of this vitamin with citrus and bell peppers being excellent sources.
- **Spermidine** (1000-2000mg PO daily) – wheat germ extract.
- **Theracurcumin/Curcumin** (4000mg PO daily). Effects of Curcumin:
  - Potent anti-inflammatory and anti-viral with positive impact on the gut microbiome.
  - Inhibits the binding of spike glycoprotein to ACE2 receptor
  - Inhibits NADPH oxidase; thus, it dampens ROS production and alleviates oxidative tissue injury
  - Directly modifies the spike protein and/or ACE2 and induce host antiviral responses by targeting NRF2 and HMGB1 and block NF-κB, inflammasome, HMGB1, and IL-6.
  - Actively interfere via modulating the proinflammatory effects of Ang II-AT1 receptor-signaling pathways
  - Broad spectrum of antiviral activity against enveloped viruses.

- **Blended Garlic + Fresh-Squeezed Lemon** – Drink with each meal (avoid drinking on empty stomach)
  - **Quercetin**
    - Prevalent in Onion, garlic, ginger, etc.
    - Directly binds the glycoprotein spike. Inhibits the activity of ACE2.
    - Showed inhibitory effects on several stages of viral life cycle (cell entry and viral replication).
    - Potent antioxidant (improves immune system and assists in spike protein elimination).<sup>17</sup>
    - Suggested Simple Recipe:
      - **Quercetin-Rich Soup** – Boil 1/4 to 1/2 red onion in 1-2 cups of water for 10 minutes. Salt to taste. Drink liquid at dinner time (avoid solid particles of onions if doing intermittent fasting).
- **Turkey Tail**
  - (Coriolus Versicolor) taken as turkey tail or PSK 3gm per day –
  - More than 400 studies demonstrate stimulation of the immune system by taking Turkey Tail Mushroom.
  - It is a natural antioxidant and inhibits cancer cell growth.
  - Bioactive extracts are: Polysaccharide krestin (PSK) and Polysaccharide peptide (PSP).
    - PSK is an anticancer drug used effectively in Japan.
    - PSP activates the immune system and was found to increase T-cells by increasing production of specific cytokines and chemokines. It is also an excellent prebiotic and has anti-inflammatory activity.
- **AHCC**
  - (Active Hexose Correlated Compound) taken 3 grams daily.
  - Stops ongoing spike protein exposure.
  - Shitake Mushroom Active Extract decreases viral load, decreases inflammation, increases T-cell production in spleen and lungs, enhances IgG antibodies, and improves innate and adaptive immunity.<sup>18</sup>

- **Turmeric** (in place of curcumin supplement) – 1 tsp in plant-based milk daily.
- **Activated Charcoal** (Coconut-based preferably. 1 Tbsp in 8 oz glass of water nightly) – Charcoal is excellent for detoxification purposes. Please be cautious and DO NOT take within 2-3 hours of your regular medications (if applicable). Charcoal can cause constipation if not sufficiently hydrated during and after ingestion. Can be purchased at [www.charcoalhouse.com](http://www.charcoalhouse.com)
- **CoQ10** for mitochondrial support.

### **TEMPERANCE** (especially in Timing of Eating)

- A useful definition for temperance is total abstinence from harmful substances or activities and moderation in beneficial foods or activities.
  - One example of temperance is intermittent fasting. Intermittent Fasting is followed as a consecutive period of 16 hours or greater time spent fasting each day.
- **Intermittent Fasting** (Limiting meals to breakfast and lunch and outside of that period just water). Fasting places the body into a state of repair. The fasting state typically begins after 5 hours without food. To enhance results an excellent way to enter the road to recovery is to begin with one day of water fasting followed by intermittent fasting for subsequent days.
  - Fasting has been found to increase ketone bodies which naturally inactivates spike protein.<sup>19</sup>
  - Mitochondrial dysfunction is a key mechanism of Long COVID<sup>20</sup>
    - Fasting improves mitochondrial function<sup>21</sup>
  - Endothelial dysfunction is a key mechanism of Long COVID (resulting in higher risk of vascular thrombotic events on a microvascular and macrovascular level)<sup>22</sup>
    - Fasting drastically improves endothelial function<sup>23</sup>
  - SARS-CoV-2 transmembrane protein ORF3a inhibits autophagy (a key mechanism for the body to clear damaged/infected cells and pathogens such as bacteria and viruses)<sup>24</sup>
    - Fasting enhances autophagy in the body.<sup>25</sup>
  - Spike Protein causes blood coagulation and thrombosis.<sup>26</sup>
    - Fasting reduces thrombosis and enhances innate immunity.<sup>27</sup>

## **REST**

- Proper sleep induces high levels of melatonin production which protects healthy mitochondrial function and combats existing mitochondrial dysfunction.
  - Melatonin has a synergistic activity with Vitamin D.
  - Melatonin is able to degrade spike protein, inhibit neurological inflammation, reverse endothelial damage, and prevent reinfection by binding to ACE-2 receptors.<sup>28</sup>
  - Dosage: 3mg taken 30 minutes prior to bedtime. Supplementation of melatonin would typically not be necessary with appropriate circadian rhythm management; however, beta blocker medications inhibit melatonin production by up to 90% and may necessitate supplementation at bedtime.
  - NOTE: High levels of melatonin can be naturally produced by:
    - § Ensuring near-total darkness during bedtime hours
    - § Setting a bedtime shortly following sunset
    - § Consuming adequate dietary tryptophan
    - § Getting sufficient morning sunlight through the eyes (avoid directly looking at the sun)

## **EXERCISE**

- Facilitates viral clearance by increasing immune response (T-cell response) and decreases chance of severe COVID.<sup>29</sup>
- **Moderate Physical Activity & Avoiding Extended Inactivity**
  - **Moderate Exercise Recommendation:** 150 minutes of moderate exercise weekly (walking, swimming, etc.). Avoid continuous intense exercise or prolonged exercise exceeding 2 hours until fully recovered.
  - Those who are regularly inactive (<10 min per week of physical activity) had 2.49x higher odds of death from COVID-19.<sup>30</sup>

## **SUNLIGHT**

- **Maximize Sunlight Exposure & Maximize Darkness** – There are many benefits offered by sunlight that have yet to even be elucidated, but three very prominent mechanisms of benefit are:



- **Induction of Vitamin D production by the skin.** UVB light from the sun is absorbed by the skin to convert 7-dehydrocholesterol into pre-vitamin D3 and ultimately vitamin D3. UVB light from the sun peaks during the mid-day sun (afternoon).
  - Vitamin D inhibits reinfection and promotes spike protein destruction.
  - Downregulates inflammation and cytokine release, effective against fatigue and brain fog, destabilizes the affinity of Spike-1 Receptor for the ACE-2 Receptor.<sup>31</sup>
  - **Low Vitamin D levels are associated with more severe COVID infections and high mortality rates.**<sup>32</sup>
  - **Vitamin D3** (4000-5000 IU PO daily) – ideally accomplished by exposure of the skin to the sun. Supplementation may be necessary under circumstances where adequate vitamin D production may not be possible.
- **Setting the Circadian Rhythm.** Our body's are designed to be on a schedule and in a rhythm. Our circadian rhythm is built in and is the foundation for the body's hormonal rhythm and many healing processes. Sunlight particularly at sunrise is the most ideal for establishing the start time for the circadian rhythm in most regions of the world. We do not advise looking directly at the sun, but rather at the blue sky or allowing the sun to be in the peripheral vision around 35-45 degrees away from central vision. Doing this around the same time every day will permit the sun to send appropriate signals to the hypothalamus on establishing the circadian rhythm. The second aspect is establishing the darkness period of the day. Ideally this correlates with the time period after sunset. Maximizing darkness after sunset will permit the body to release significantly higher levels of the healing hormone named melatonin which is absolutely crucial for cellular repair, recovery, and healing. This darkness can be accomplished by avoiding devices, screens, and other sources of artificial light. Sources of light inhibit the pineal gland from secreting melatonin, so the less light exposure, the more amplified the release of melatonin at night. If this is not possible, blue light filters and

decreasing display brightness to the minimum necessary brightness can be useful.

- **Production of intracellular melatonin by near-infrared light.** Near-infrared light from the sun occurs throughout daytime. This wavelength induces production of intracellular melatonin throughout the day which is one of the body's most potent antioxidants and promotes mitochondrial recovery.<sup>33</sup> Mitochondrial damage is one of the key mechanisms of Long COVID & post-vaccine injury. Near-infrared Light from the sun induces intracellular melatonin production which concentrates in the mitochondria and promotes mitochondrial health while combating mitochondrial dysfunction which is so prevalent in Long COVID. The great news is near-infrared light will work even when not directly in the sun and it is able to induce intracellular melatonin production through clothing.

### **TRUST AND FAITH IN GOD**

- Decreases inflammation and improves survival.
- Lowers Cortisol by decreasing inflammation.
- Found to improve survival in HIV patients.<sup>34</sup>
- Cognitive Behavioral Therapy was found to produce significant improvements in Long-COVID fatigue.<sup>35</sup> Hence the counsels in Scripture: "And do not be conformed to this world, but be transformed by the renewing of your mind, that you may prove what is that good and acceptable and perfect will of God." Romans 12:2 KJV

In the book of Exodus, God's people are given this wonderful promise applicable to us today:

"And said, If thou wilt diligently hearken to the voice of the LORD thy God, and wilt do that which is right in his sight, and wilt give ear to his commandments, and keep all his statutes, I will put none of these diseases upon thee, which I have brought upon the Egyptians: for I am the LORD that healeth thee." Exodus 15:26 KJV

When it comes to any disease, God is to be sought as the source of true healing. The same applies for Long COVID and any other health challenge we may be facing.

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