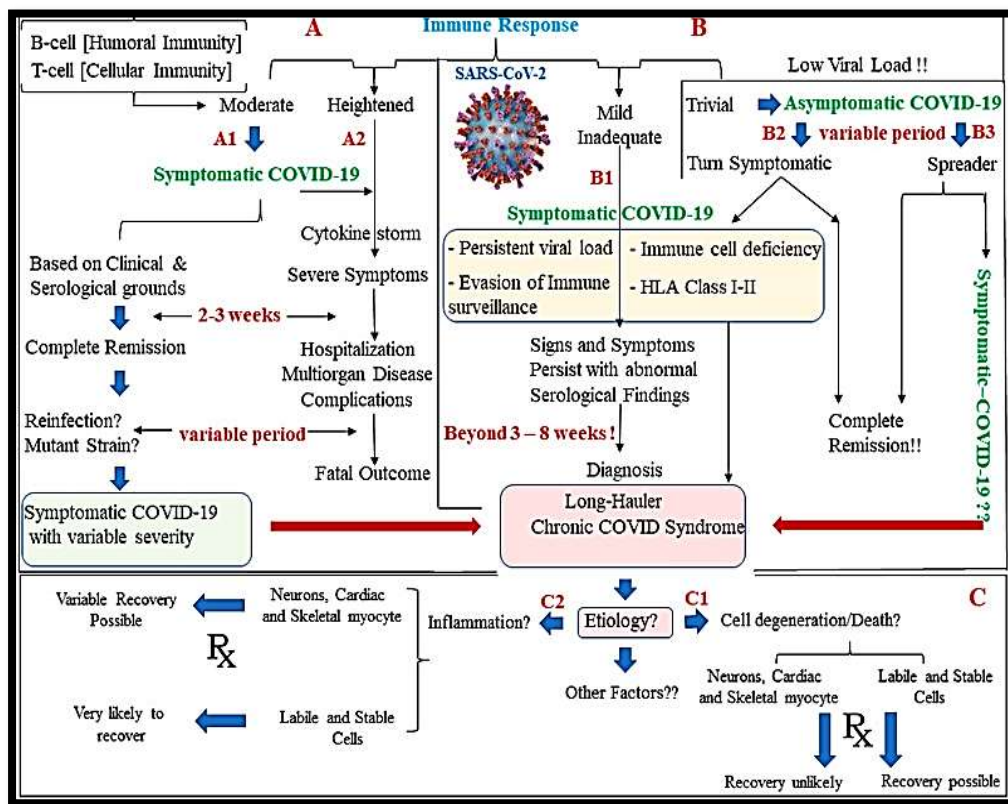


Proactive Wellness Covid Long Haulers/Post-Covid Syndrome Diagnosis and Approach

Covid-19 long-haulers is a term used to refer to people that have contracted the virus, and it resolved with or without treatment and/or hospitalization, however, the patient is left with lingering and seemingly unexplained symptoms. A range of multiorgan complications following COVID-19 infection – including respiratory, cardiovascular, metabolic and renal impairments – have been observed as described in the graphic below.



PHYSIOPATHOGENIC PATHWAYS TOWARDS LONG COVID (FROM: ABDUL MANNAN BAIG: DELETERIOUS OUTCOMES IN LONG-HAULER COVID-19)

Covid-19 Long Haulers Typical Symptoms

1. Coughing
2. Shortness of breath

3. Tightness in the chest
4. Ongoing fatigue
5. Body aches
6. Joint pain
7. Loss of the sense of taste and smell
8. Difficulty sleeping
9. Headaches
10. Brain fog
11. Chills and/or sweats

Covid-19 long haulers syndrome root causes

As a functional doctor, we look for root causes. Our research shows that any or all of the following may be the reason for long hauler's syndrome.

1. **Viral latency:** Once contracted, the virus can remain dormant in your body – eluding detection by your immune system and triggering low-level inflammation.
2. **Persistent immune dysregulation:** Because your immune system perceives a continuing threat, it stimulates the ongoing production of proinflammatory cytokines and mediators to block that action – furthering the immune dysregulation.
3. **Mitochondrial dysfunction:** As the virus hides out in your cells, it modifies the functions of your cells to better suit its own viral replication. This allows the virus to partially control cellular functions so that when combined with the regular work of the cells, the mitochondria become dysfunctional.
4. **Compromised autophagy.** Autophagy is an intracellular biological process that removes the body's toxins and recycles damaged cell components. When autophagy is compromised, cells become sluggish and bogged down and this results in a reduction of cellular function that ultimately leads to fatigue and compromised bodily functions across all systems.

The combination of the above root causes leads to immunological dysfunction and mitochondrial deficits and ultimately leads to the array of symptoms seen in long-haulers.

Proactive Wellness Treatment for Covid Long Haulers

Long haulers treatment consists of clearing any remaining low-level virus and then cleaning the terrain. The latter will make the difference in the long-term health of the patient. Cleaning the terrain is necessary to correct immune dysregulation, the real culprit in primary COVID-19 and chronic long

Gut Restoration

1. Gut restoration using specialized supplements (Biotics Research GI Resolve)
2. Probiotic as needed
3. Identify and eliminate sensitive foods using food sensitivity testing

Immune and Autophagy Rejuvenation

1. Ivermectin (5-7 days) to eradicate viral load. Though the patient may test negative for COVID-19 research has shown that even low levels of the virus can continue to cause immune dysfunction
2. Special peptide for Immune modulation
3. Specialized supplements to enhance autophagy
4. Vitamin D enhancement if not already optimal
5. Zinc (25 mg daily)

Mitochondrial Rejuvenation

1. CoQ10
2. Vitamin C
3. Specialized supplements to accomplish mitochondrial strengthening.

Liver support

1. Liver detoxification
2. Drink plenty of water and reduce alcohol intake
3. Anti-inflammatory diet
4. Identify and reduce toxic exposure using Great Plains Laboratory GPL-TOX and indicated binders and detoxification supplements