*Dr. Haider’s* **Long COVID & Vaccine Injury Protocol**

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Vaccine Injury / Long Haul Protocol

There are a lot of things included here, start with what you find easy and add things slowly. Baby steps are better than going all-in and becoming overwhelmed.

Dr. Haider's Complete Protocol Video (may be slightly outdated at times):

[Long Haul  & Vaccine Injury - The Complete Protocol.mp4](https://drive.google.com/file/d/1S51HvW44dt6AAu5ebFOMKaKo25_A_RXB/view?usp=share_link)

Disclaimer:

The following recommendations may change with time as newer information pours in and hence you are requested to keep updated or remain in touch with us at mygotodoc.com for the new updates to this document.

*Symptoms and labs:*

There can be a wide variety of symptoms comprising long covid syndrome in different people ranging from general symptoms like fatigue to more organ-specific symptoms such as shortness of breath and brain fog. Many different but intersecting underlying pathologies have been hypothesized and an effort is underway to categorize the symptoms based on underlying causes/mechanisms and treat them accordingly.

Nutritional deficits can play a major role in delaying healing and identifying and treating them should ideally be the first approach, as balancing all the ingredients of healing will let the body heal naturally.

Following is a set of labs that we recommend to all long-haul patients irrespective of the type of symptoms. Additional tests can be done based on the symptoms profile, which will be listed with the respective symptom cluster.

***Lab results and symptoms MUST be interpreted by your PCP or you can contact us at mygotodoc.com for guidance on your treatment for your current condition. While self-medicating may offer some relief in the short term, over time it only exacerbates your problems. DO NOT self-medicate, please contact us.***

*Warning:*

Some patients may experience a Herxheimer (AKA “Herx”) reaction due to accumulated toxins leaving the body when starting one or more treatments, even significant dietary changes. A Herx reaction may cause fatigue, nausea, headache, muscle pain, vomiting, and/or diarrhea. This can feel very negative but should be taken as a positive sign that the treatment is working. If you experience a Herx reaction, consider stopping the triggering element of the protocol for 48 hours and then resuming again slowly.

Lifestyle Recommendations:

* **Mindset:**
  + Believe you will get better.
  + Imagine yourself completely healed and feel grateful during that visualization.
  + Intend healing while doing everything mentioned below

* **Exercise**
  + Avoid cardiovascular exercise beyond Zone 2
  + Zone 2 exercise for 30-60 minutes, 2-4 times a week done over the course of months will improve mitochondrial function and fatigue. Zone 2 heart rate calculators are not accurate, the best way to know you are in zone 2 is that you can carry on a normal conversation for the entire workout though it feels moderately uncomfortable to do so and if someone were on the phone with you it would be obvious to them you were exercising.
  + Walk outside 10,000 - 20,000 steps a day if able.
  + Consider Soleus push-ups while seated during the day as evidence suggests this movement may help optimize metabolic health, dramatically lowering blood sugar, insulin, and lipid levels.
  + Test and track autonomic nervous system function with heart rate variability and orthostatic testing:

<https://www.polar.com/blog/heart-rate-variability-and-orthostatic-test-lets-talk-polar/>

<https://support.polar.com/en/support/the_what_and_how_of_orthostatic_test>

More important the more severe the Long Haul symptoms are, especially if any heart-related symptoms like chest pain, or skipped beats.

You can request cardiology workup tests to rule out myocarditis and risk of sudden collapse:

EKG, Echo, Stress Echo, Cardiac MRI with gadolinium contrast looking for evidence of myocarditis/scarring. Please reach out to us through your Push Health account.

* **Behavioral modification** - i.e. in general avoid anything which makes you worse - this could be certain activities, thoughts, foods, etc.

* **Rest**
  + Sleep enough and do whatever it takes to get good quality sleep, no caffeine after noon, if you always have poor sleep try stopping caffeine entirely. Good sleep hygiene usually means waking at the same time daily, getting 20-30 min sunshine before 10 am daily, avoiding eating within 4 hours of bed, keeping lights off after dark or only using red lights or wearing blue blocker sunglasses to avoid blue light, avoiding arguments and other stressful situations after dark, and avoiding using screens after dark, e.g. reading printed material instead. Sleeping on the right side helps activate the vagus nerve and calm you down for sleep this may be more comfortable without a pillow. Cold plunges in the morning can greatly improve sleep quality as well.
  + If you have a crash in energy in the afternoon then lie down for 15 minutes daily at that time.

* **Meditation, Meditative Movement, Breathing, Cold Exposure, Heat Therapies, Vagal Maneuvers/Stimulators, and the Stellate Ganglion Block all modulate and reset the overactive sympathetic nervous system**
  + Daily Meditation - Try the Headspace app, even if only for 5 minutes a day.
  + Meditative movements like yoga and chi kung
    - General guidelines for yoga and chi kung:
      * RELAX - progressively relax all muscles from your head down to your feet then take a deep breath, breathe out and relax twice as much
      * DON'T WORRY - about anything, including if its working, if your doing it wrong, if you look funny, etc
      * SMILE - from the heart. Before starting the exercises and prior to starting a new exercise
      * ENJOY YOURSELF
      * ENTER A MEDITATIVE STATE OF MIND

**Chi Kung Exercises:**

* Lifting the Sky: <https://www.youtube.com/watch?v=T_WsOEWF7TU>

* 12 nerve exercises: <https://www.youtube.com/watch?v=pQl5wYeeJ20>

* **Breathing exercises:**
  + Wim Hof's incredible 10-minute guided breathing exercise: <https://www.youtube.com/watch?v=tybOi4hjZFQ>
  + 4 breaths, 4 times a day of 4,7,8 breathing: <https://www.youtube.com/watch?v=p8fjYPC-k2k>

* Daily 1-2 minutes cold exposure, eg freezing cold shower, or even better an ice bath

* Daily 20-40  minute sauna at 180F or higher or hot bath (some people with MCAS or histamine related problems will not tolerate this, if it worsens symptoms avoid it)

* **Vagal nerve stimulation**
  + Vagal maneuvers: <https://my.clevelandclinic.org/health/treatments/22227-vagal-maneuvers>
  + Vagal nerve stimulator ($50 device) and Stellate Ganglion Block ($500 - $1000 outpatient procedure): see free ebook at [reliefbeginshere.com](http://reliefbeginshere.com)

* **Photobiomodulation**: Regular sun exposure leads to powerful antiinflammatory effects, beneficial effects on mitochondrial and vascular health, raises neurotransmitters and prolongs overall cellular survival. A recent large prospective study showed that avoiding sun exposure is a risk factor for all-cause mortality. In this study, the mortality rate amongst sun avoiders was approximately two times higher compared with the highest sun exposure group. Aim for daily 20-30 minutes of sun exposure without intervening glass and without sunscreen before 10am for the best effect on sleep and between 10 am and noon for the most potent effect on vitamin D levels. Some may need to work up to this. Avoid even slight sunburn.

* **Food:** to improve digestive health: eat slowly and eat less by eating small bites, chewing them fully, swallowing before reaching for the next bite and stopping before you are completely full.
  + Consider avoiding high histamine foods, especially if MCAS or allergy symptoms, but even as a trial for other symptoms which may be histamine related.
  + Consider Autoimmune Paleo diet (AIP), especially if symptoms or labs suggest autoimmunity or if there is a history of preexisting autoimmune disease or significant GI symptoms, but may consider as a trial for any hard-to-treat Long Haul symptoms as autoimmunity is likely to present in most cases and symptoms can be highly variable.

* **Fasting intermittently:** Fasting is a trigger for autophagy which helps your body remove remnants of the inflammatory spike protein and recycle the old cells harboring it. Try to eat within a 1-8 hour window daily (i.e. 1-2 meals a day). Ideal eating windows are earlier in the day, because the deepest levels of autophagy are triggered 14 hours after the last meal, and central nervous system autophagy is only triggered during sleep, so it’s best for your sleeping hours to coincide with the deepest levels of autophagy that happen 14 hours after your last meal. For example, if you stop eating by 2 pm every day, then 14 hours later at 4 am you will enter the deepest levels of autophagy and if you wake at 6 am you will spend 2 hours doing a deep cleaning of your neurons.

* **Optionally**: try a longer fast for 24-36 hours once a week. Optionally add a 12-16 hour dry fast in the middle of the 24-36 hour fast meaning avoid water for 12-16 hours and then for the rest of the time simply avoid food.
* Detox: if not anemic then blood donation every 2 months. Regardless of anemia or iron levels consider every 2 weeks plasma donation. This removes all toxins from the body. There are also oral detox protocols like this one: **fulvic acid and humic acid (organic matter from the soil) along with sauerkraut juice, activated charcoal and bentonite clay. These supplements specifically help remove toxins: curcumin, garlic, vitamin C, methyl tetrahydrofolate, methylcobalamin (B12), N-acetyl cysteine, glutathione (liposomal for absorption), taurine, and epsom salt baths, sauerkraut and**

Supplements and Herbs

1. Lumbrokinase: 20 - 40mg (300,000 -  600,000 IU)- Take one capsule 1 - 3X daily OR Nattokinase 100-200mg (2000-4000 FU) 1-3 times a day (avoid if soy allergy)
2. Serrapeptase: 10 mg (20000 units) three times a day.
3. Nicotinamide mononucleotide: 500-1000 mg per day
4. Spermidine: (follow standard dosing  instructions on the product)
5. Resveratrol (500mg twice daily).
6. Monolaurin 1000 mg 3x a day (immune booster/antiviral)
7. Sodium Butyrate 1000 mg morning and evening (supports microbiome)
8. Curcumin, Nigella Sativa & Dandelion (we have an encapsulated powered herb combo for these: <https://mygotostack.com/products/immunity-herbals>, though traditional black seed oil from blessedseed.com may be more potent)
9. Vitamin C (500mg twice daily), Vit D 5,000-10,000 IU daily, Vit K2 (100-200 mcg daily), Zinc (50mg daily), Quercetin (250-500mg daily) Bromelain 90 mg daily (we have a combo supplement for these: <https://mygotostack.com/products/mygotostack-immunity>). Re Vitamin D: The majority of those with long COVID continue to have Vitamin D deficiency. For correct dosing of D3, check labs for: 25 OH D, PTH, and calcium (present in the CMP) labs will be required to determine adequate personal Vitamin D levels. Aim for normal range calcium, and normal range vitamin D with PTH less than 30. If PTH is above 30 then increase the dosing of D3 until PTH is less than 30.
10. 10,000 IU of vitamin A daily in bioavailable retinol form.
11. 20 IU of vitamin E as bioavailable alpha-tocopherol daily
12. Omega 3 fatty acids: Take either: Vascepa (prescription), or work up to DHA/EPA 4 g per day (Wiley's finest Peak Omega 3 liquid offers over 2.3 grams EPA/DHA per teaspoon: <https://wileysfinest.com/peak-omega-3-liquid/>)
13. NAC (n-acetylcysteine): 600-1500 mg/day
14. Selenium: 200 mcg daily
15. Copper: 2 capsules of Mitosynergy Mitoactivator Extra Strength daily
16. Get 3 mg of manganese per day
17. Molybdenum: 500 micrograms per week or 45-150 micrograms per day
18. Probiotics: Pendulum Health Akkermansia 1 cap daily, Pendulum Health GI Repair 1 cap daily and If you have prediabetes or diabetes consider Pendulum Health Glucose Control 1 cap daily
19. L-Arginine 1-2 grams twice daily
20. Methylene Blue (MB): Check with local compounding pharmacies or purchase high-quality methylene blue powder and formulate an orally administered 1% solution (10 mg in 1 ml solution – 0.5 mg/drop) as follows: Mix 1 gram of methylene blue powder with 100 ml of water. <https://www.bphchem.com/product/methylene-blue-1-usp-grade-50-ml-1-drop-contains-0-5-mg-of-methylene-blue/>

Dosing of MB: start with 1 or 2 drops in the morning for the first two days. On the third day, increase the dosage to 3 drops daily for the next two days. Continue increasing the dosage by 1 drop every 2 days (guided by symptoms – i.e., improvement in fatigue and/or cognitive improvement) until you reach a maximum of 22 drops. The optimal dose is highly individualized and each patient needs to find the right dose for them. Take LDMB for 6 days in a row. Take the 7th day off every week to allow the body to reset. LDMB will cause your urine to be blue or blue-green.

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| **DO NOT take Methylene blue and Fluvoxamine/Fluoxetine together** |

1. OPTIONAL if not improving after trying other supplements for 1-2 months: Melatonin: up to 10 mg at night (slow release/extended release preferred), Patients should also pay attention to good sleep habits. Increase dose from 1 mg as tolerated (may cause vivid dreams at higher dosages). **AVOID taking high doses with SSRIS like Fluvoxamine/fluoxetine**. Skip 1 day a week so your body's ability to make this sleep hormone is not completely shut down, though some people think this does not happen. There are also reports of very high dose protocols up to 300mg daily in which case they do not trigger sleepiness and may have additional anticancer and antiinflammatory benefits for healing.
2. Magnesium: A starting dose of 100 to 200 mg daily is suggested, increasing as tolerated up to 300 mg to 400 mg daily. There are at least 11 different types of magnesium that can be taken in supplement form with varying bioavailability. Generally, organic salts of Mg like Mg citrate or Mg glycinate have a higher solubility than inorganic salts like Mg oxide and have greater bioavailability. Magnesium Threonate is the only form that reliably enters the brain and may be beneficial for neurological symptoms.
3. If possible try high dose Vit C: Intravenous Vitamin C: 25 g/week, together with moderate dose oral Vitamin C 1000 mg (1 gram) 2-3 times daily. Oral Vitamin C is an important nutrient for the microbiome. Total oral daily doses of 8-12 g and even higher have been well-tolerated, however, chronic high doses have been associated with the development of kidney stones, so the duration of therapy should be limited. Wean IV Vitamin C as tolerated. One method of titrating oral dosing involves taking 5 - 10 Grams every hour until diarrhea occurs then taking 80% of that total dose daily until diarrhea occurs again, then again reducing that dose to 80% daily until diarrhea develops, etc -‘until you are stable on a dose that doesn’t cause diarrhea.
4. Mitochondrial energy optimizer with pyrroloquinoline quinone (e.g., Life Extension Energy Optimizer or ATP 360®).

Over-the-Counter and Prescription Medications

1. Ivermectin
2. Low dose naltrexone
3. Propranolol
4. Pravastatin
5. Hydroxychloroquine
6. Prednisone
7. Fluvoxamine/Fluoxetine
8. Pepcid
9. Claritin/Zyrtec
10. Plavix
11. Heparin/Eliquis
12. Maraviroc
13. Ubrelvy
14. Aspirin
15. Spironolactone
16. Dutasteride

*Warning: which medications and for how long will depend on how each patient responds to the protocol. Each patient is different, please contact us to provide you with comprehensive and custom assistance.*

Protocol Steps

General rules for all over-the-counter and prescription medications:

* If you have intolerable side effects stop taking them and wait for the side effects to wear off before trying a new prescription.
* If you feel better on a medication continue taking it and don't stop it until you feel ready to start tapering off your treatments (eg your symptoms have resolved)
* If symptoms have improved on a medication don't suddenly stop it, rather taper off it when you are ready by cutting the dose in half for 1-2 weeks then in half again for another 1-2 weeks then stopping if tolerated. If while tapering you start worsening you should stop tapering and go back up to the last effective dose before you started the taper.

General Steps:

1. Start with 2-4 weeks of supplements and over-the-counter meds like low-dose aspirin and if there are allergic symptoms or mast cell activation syndrome (MCAS) then also use over-counter Pepcid and Zyrtec - take these both twice a day for at least 2 weeks, and continue afterward.

1. If not better after 2 weeks add Ivermectin and Mygotostack IMMUNITY [protease inhibitors].

Ivermectin: Take 1 capsule (0.2mg/kg) by mouth daily for 7 days. If not resolved, take 2 capsules daily for 7 days and if not resolved take 3 capsules daily for up to  6 weeks before gradually tapering down to 1 capsule daily.

Mygotostack IMMUNITY [protease inhibitors]: Take 3 capsules 4 times a day for at least 15 days. <https://mygotostack.com/products/immunity-protease-inhibitors>. In the case of ongoing viral replication, these powerful herbal protease inhibitors block the protease enzyme required by SARS-Cov-2 to multiply.

1. Also patients with significant anxiety due to long COVID who do not have contraindications.

Propranolol: Take 10 mg three times a day as long as there are no contraindications.

Based on the doctor’s criteria the dose can gradually increase in 10 mg increments every 2 weeks if it's showing improvement, to a max dose of 80 mg 4 times a day. The patient needs to check their Heart Rate and Blood Pressure every 2 weeks.

1. If not better start taking Low Dose Naltrexone 3 weeks after starting Ivermectin.

Low Dose Naltrexone: Take 1 mg daily for 15 days, then 2 mg daily for 15 days, then 3 mg daily for 15 days, then 4.5 mg daily ongoing.

**For patients with typical** **MCAS**, meaning the usual covid symptoms plus any of the following symptoms:

* Hives and/or rash
* Swelling of skin or joint
* Edema
* Bloating
* Itching, prickling, and burning sensation
* Reddening of the skin
* Reddening of the eyes
* Watering of the eyes
* Eczema
* Hay fever
* Dermatographism
* Tightening of throat
* Difficulty in swallowing

If you felt better after starting Pepcid/Zyrtec initially, then after trying ivermectin and LDN, add DAO enzyme supplement (available over the counter <https://a.co/d/bqLRVGX>) for 2 weeks

If not better after 2 weeks start Singulair 10 mg/day for 2 weeks

If not better after 2 weeks start Ketotifen 0.2 mg/ml: take 0.5mg (2.5 ml) orally twice a day for 5 days then 1 mg (5 ml) twice a day for 30 days

If not better after 2 weeks, start Cromolyn sodium 20 MG/ML Oral Solution [Gastrocrom]: Take 200 mg up to 4 times/day - 30 minutes before each meal and at bedtime. If control of symptoms is not seen within 2 to 3 weeks, the dose may be increased to a maximum of 40 mg/kg/day (directions for oral solution: Open the ampule and squeeze the contents into a glass of water; stir well).

After going through the above steps, if still not improved go on to next step  below.

1. If not better in 2 weeks add hydroxychloroquine.

HCQ: Take by mouth 1 tablet twice a day for 2 weeks, then taper down as tolerated to 1 tablet per day for at least 4 weeks or longer if needed.

1. If not better in 2 weeks add pravastatin.

Pravastatin: Take 1 tablet daily

1. If not better in 2 weeks, add prednisone.

Prednisone: Take by mouth 3 tabs for 21 days, then taper to 2 tabs for 3 days and then 1 tab for 5 days.

1. If not better in 2 weeks, add Truvada

Truvada: Take by mouth 1 tablet daily between 4 and 6 pm for 9 days.

If symptoms improve after the first 9 days, continue Truvada for 3 months.

1. If not better after 9 days, add fluvoxamine.

Fluvoxamine: Take by mouth 12.5mg per day for 3 days, then 25mg per day for 3 days, then 25mg twice a day for 3 days,  then 50mg twice a day for at least 2 weeks or longer

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| **DO NOT take Methylene blue and Fluvoxamine/Fluoxetine together** |

1. If not better in 2 weeks, **STOP nattokinase/lumbrokinase/serrapeptase**, *continue aspirin 81 mg daily,* and **add Plavix**.

Plavix: 75 mg taken once daily

1. If not better in 2 weeks and no signs of bleeding add either Eliquis or heparin. *Continue all meds for 4 weeks total.*

Preferably subcutaneous heparin 6000 units superficial subcutaneous injection (into fat) 4 times a day, since it binds spike protein. Alternatively 1-2 times daily long-acting low molecular weight heparin injection such as 1.5 mg/kg lovenox once daily, or 1 mg/kg lovenox twice daily.

Eliquis is 5 mg oral twice daily.

*IMPORTANT: While on aspirin/plavix or aspirin/plavix/heparin/eliquis get weekly or biweekly  CBCs to monitor hemoglobin and stop if any bleeding occurs.*

1. If not better in 2 weeks add maraviroc or Ubrelvy for 4 weeks. In order to prescribe, you must have a CBC/CMP done within the previous 4 weeks.

1. If not better after a month, add Spironolactone for 2 weeks.

Spironolactone 50-100mg twice a day

1. If not better in 2 weeks add Dutasteride.

Dutasteride 1mg daily.

1. **For patients who still have tinnitus** -  add oxytocin nasal spray.  Studies have shown that long-term treatment with high-dose oxytocin may reduce the frequency and severity of tinnitus. Dose: Apply one puff/4 IU oxytocin in each nostril two times a day. After 2 weeks if not better go to step 4 below.

1. If not better contact us to discuss other potential prescription medications like valproic acid, sildenafil, and pentoxifylline.

Lab Testing

Optimizing various lab values can be very helpful and we can order these for you and help interpret them:

* Plasma zinc
* Serum copper
* Iron panel (serum iron, UIBC, TIBC, iron saturation %)
* Ferritin
* Transferrin
* CBC With Differential
* CMP
* Troponin
* NT Pro BNP
* PTH
* Serum vitamin A
* 25(OH)D - aim for normal range with PTH maximally suppressed (usually 20 - 30) and normal calcium on CMP
* 1,25 Dihydroxy OH D (calcitriol)
* Plasma amino acids (a standalone plasma amino acid panel is sufficient, but this is often combined into other panels, such as the Genova ION or the Genova NutrEval)
* LabCorp’s ANA Profile 12
* Alpha 2 antiplasmin (elevated in microclotting)
* Von Willebrand Factor (may be elevated in microclotting)
* D-Dimer - is usually ***not*** elevated in the setting of Long Haul microclotting. Elevations indicate clot breakdown is happening, so a high D-dimer may actually be a positive sign for some that healing has startedas a marker of clotting activation. Those with a markedly elevated D-dimer should

probably undergo screening for an inherited thrombophilia (eg: <https://www.uptodate.com/contents/screening-for-inherited-thrombophilia-in-asymptomatic-adults>).

* Prothrombin time
* Plasma Selenium
* Angiotensin II.
* Urine pH
* Quest Diagnostics Calcium, Total, RBCs
* EBV panel(IgG, IgM, Early D antigen and EBV PCR Quant)
* Parathyroid hormone (PTH)
* Serum amyloid A (SAA)
* Platelet factor 4 (PF4)
* E-selectin
* PECAM-1 (CD31)
* Percentage CD4+
* Absolute CD4+
* Percentage CD8+
* Absolute CD8+
* CD4:CD8 ratio
  + Early morning cortisol—some patients develop autoimmune adrenal failure)
  + TSH—to exclude thyroid disease
  + Homocysteine level (normal 5-15 μmol/l)
  + HbA1C—Vaccine-injured patients are at an increased risk of developing diabetes
  + Troponin and pro-BNP to exclude cardiac disease.
  + CMV, Herpes simplex, HHV6, and mycoplasma serology/PCR—to exclude viral/bacterial reactivation (In patients who respond poorly to therapy, it may be helpful to check for Lyme (Bb), Bartonella and Babesia tick-borne diseases— e.g., <https://igenex.com> and [https://www.mdlab.com](https://www.mdlab.com/)).
  + In patients with allergic features and those who experienced an acute reaction to the vaccine, the following tests may be helpful:
    - Eosinophil count; IgE levels, RAST testing, and/or skin testing.
    - Serum tryptase, serum histamine, and/or 24-h urine N-methylhistamine should be considered in MCAS.
  + In patients who present with deep venous thrombosis (DVT) and/or pulmonary embolism soon after vaccination screening for inherited thrombophilia is suggested.
  + Limited screening autoantibodies. Lupus anticoagulant (if positive B2 microglobulin etc.) and ANA.
  + Vaccine-injured patients, particularly those with autonomic dysfunction/SFN frequently have an extensive array of autoantibodies directed against G-protein coupled cell surface receptors, ACE-2, neurons, myelin, and other self-epitopes.

Warning: To reduce variability and lab interferences, I recommend cutting out any biotin supplements with doses greater than 300 micrograms for four days before any labwork; not taking any supplements on the evening prior; and on the morning of, fasting from both food and supplements.

Basic notes on labs:

* If plasma zinc is in a healthy range and **taste and smell dysfunction, brain fog, or memory and attention problems** persist (especially if they persist together), try 1200 milligrams per day of alpha-GPC (600 with breakfast, 600 with lunch) and 240 milligrams per day of ginkgo biloba with breakfast.
* If **fatigue** persists and all iron and CBC markers are normalized, try 500-1000 mg oxaloacetate one to three times a day and 100 mg ubiquinol one to three times a day.

***Disclaimer: Lab results and symptoms MUST be interpreted by your PCP or you can contact us at mygotodoc.com for guidance on your treatment for your current condition. While self-medicating may offer some relief in the short-term, over time it only exacerbates your problems. DO NOT self-medicate, please contact us.***

Promising Potential Therapies

Non-invasive brain stimulation (NIBS)

Using transcranial direct current stimulation or transcranial magnetic stimulation. NIBS is painless, extremely safe, and easy to administer. NIBS is offered by many Physical Medicine and Rehabilitation Centers. Patients may also purchase an FDA-approved device for home use.

Ozone therapy

Ozone therapy has been reported to help. Ozone therapy can be applied topically using ozonated oils from <https://shop.puro3.com/>  ones have different strengths as mentioned on the website, It is recommended to start with a lower strength oil (from low strength to high strength in terms of ozonation: Coconut (14) -- Castor (35) -- Jojoba (39) -- Avocado (90) -- Olive (92) -- Sunflower (153) -- Hemp (192)) and then gradually work up to a stronger one. They can be applied to any area of the skin that does not become irritated and in places that have discomfort. They have a topical effect and also a systemic effect after absorption. And should be applied 4 times a day.

Hydrogen Peroxide and Iodine Nebulization

IF you have significant shortness of breath cough wheezing THEN consider nebulized hydrogen peroxide and iodine if you can be sure to get the right dilutions. Start off slowly. If no change in symptoms after a few days then stop. If symptoms improve then continue as needed to minimize symptoms.

Nebulizer solution - yields about 0.04% hydrogen peroxide:

5 mL Sodium chloride (standard saline solution)

1-2 drops 3% Hydrogen peroxide (food-grade) Don’t use the pharmacy brands since they are manufactured with stabilizers

1-2 drops Lugol’s 2% Iodine (food-grade)

If not using premixed saline then:

Standard Saline Solution Preparation:

1. Fill a glass jar with 8 ounces of distilled water. It's crucial that you only use distilled water and not regular tap water.
2. Add 1/2 teaspoon of pure salt to the jar. It can be Real Salt, Celtic Salt, or Himalayan Salt.

To dissolve, stir the mixture.

Acute COVID: Nebulize and breathe in for 7 minutes every hour until symptoms resolve

Long Haul: Nebulize and breath in for 7 minutes 4 times a day or as needed.

Concentrations of Hydrogen Peroxide as high as 3% have been used in the nebulizer though these tend to irritate the airways. 1.5% Hydrogen Peroxide is safer. The dilution above is about 0.04% and has excellent reported efficacy..

Inhaled Melatonin

We recommend inhaled melatonin which goes straight into the bloodstream because oral melatonin absorption is erratic and diminished after passing through the liver. Inhaled melatonin dose for acute COVID is 1.3 mg per night (10 puffs), instead of 10 mg per night when taken orally. and dose for long haul is 1-10 puffs per night (0.13mg-1.3mg) - increase from 1 puff gradually up to 10 as tolerated.

Stellate Ganglion Blocks (SGB)

The nerves are not damaged resulting in long covid like symptoms. It’s the signal the brain is receiving from the nerves that are messed up.

The body is stuck in fight or flight mode. The sympathetic nervous system is in over-drive because it thinks your body is in danger…the rancid smells & tastes are its way of trying to warn you to stay away. The nerves aren’t damaged but it’s the signal to the brain that’s affected.

The parasympathetic nervous system & sympathetic nervous system are to be balanced to work properly but they aren’t because the sympathetic is in over-drive. The SGB blocks the sympathetic & basically re-starts it so the parasympathetic can kick in & the 2 are now balanced as they should be. When they are balanced the brain receives the correct signals.

The body creates cytokines (which causes more inflammation & is normal) when it’s in fight or flight…but when we’re done with covid, our systematic nervous system isn’t re-setting on its own, so we continue to create cytokines. That inflammation is part of what prevents the brain from receiving the correct signals from the nerves. Wiping out the fight or flight mode, and re-setting the sympathetic nervous system is the key and that’s what SGB does.

TENS (transcutaneous electrical nerve stimulation)

According to Dr. Robert Graysman, in 66% of people with long covid, the vagus nerve has been found to be involved. With imaging, it was shown thickened. The parasympathetic tone has been found to be lower than in those without long covid. Part of the autonomic dysfunction can be treated by stimulating the vagus nerve through the area surrounding the external ear opening called the meatus. This stimulation can be accomplished using an inexpensive TENS unit like the TENS 7000. We like this unit because it has adjustable pulse width and frequency, but any unit that has these features will work.

Some starting TENS parameters:

* Normal or continuous mode, do not use burst or EMS or any other mode, please.
* Use the left ear. The left ear spares the heart, so it’s the safer ear to use. If you keep the intensity low, it's likely safe to use the right ear as well.
* Frequency 25Hz (range 20-30 Hz)
* Pulse width 150 (range 100-250 microseconds)
* Intensity on TENS 7000: between 1-2 which amounts to about 6mA
* Once a day for 14 days, if no recovery, can change to the right ear, but lower intensity due to risk of bradycardia.

For more information please go to [reliefbeginshere.com](https://reliefbeginshere.com), and download Dr Gorysman’s ebook for free.

Hyperbaric oxygen therapy (HBOT)

HBOT has potent anti-inflammatory properties, decreasing pro-inflammatory cytokines while increasing IL-10. Furthermore, HBOT polarizes macrophages toward the M2 phenotype and improves mitochondrial function. Surprisingly, it is the increased pressure, rather than the increase in the concentration of dissolved oxygen, that appears to mediate these effects.

Low Magnitude Mechanical Stimulation (LMMS or Whole-Body Vibration)

Low-magnitude (0.3-0.4G), high-frequency (32-40 Hz) mechanical stimulation has been demonstrated to increase bone density as well as indices of general well-being in patients with a variety of medical disorders. This therapy is offered by Physical Medicine and Rehabilitation Centers, or a device may be purchased for home use (https://www.juvent.com/ health/) similarly with noninvasive brain stimulation (NIBS).

Patients with elevated homocysteine levels

Such patients may benefit from treatment with 800 ug of 5-methyl tetrahydrofolate (5-MTHF), the most biologically active form of folic acid. Supplementation with folic acid alone will paradoxically increase homocysteine levels, particularly in patients with MTHFR polymorphism. In addition, B complex vitamins containing B2 (riboflavin) and Vitamin B6, magnesium, and Vitamin D should be added.

Plasmapheresis

Improves systemic cytokine levels, coagulopathy, and immune responsiveness in patients with severe COVID with a potential mortality benefit. However, is a limited and expensive resource that is not without complications. The durability of clinical response needs to be determined. While a therapeutic option for the severely neurologically impaired patient following vaccination, additional data is required before this modality can be widely recommended.

HELP apheresis (usually $1500 per treatment) and triple anticoagulation

One is called Lifeworks Wellness Center, website: [www.cancerdoctor.com](http://www.cancerdoctor.com)

Email: [support@cancerdoctor.com](mailto:support@cancerdoctor.com)

The other is run by Asher Milgrom, website: [www.amaskincare.com](http://www.amaskincare.com)

Email: [a.milgrom@amaskincare.com](mailto:a.milgrom@amaskincare.com)

Guanfacine

Oral dosing:

Initial: 0.5 mg once daily at bedtime; may titrate every 7 days in 0.5 mg/day increments to 0.5 mg twice daily, then 0.5 mg three times daily, then 0.5 mg four times daily; then 0.5 mg morning and afternoon, and 1 mg evening and bedtime. (could vary the timings of when the 0.5 and when the 1 mg are given if pt felt it necessary)

The maximum daily dose is 3 mg total dose per day.

General side effects can be significant:

Immediate release:

>10%:

Gastrointestinal: Constipation (2% to 15%), xerostomia (10% to 54%)

Nervous system: Dizziness (12% to 15%), drowsiness (5% to 39%) (table 1), headache (3% to 13%) (table 2)

1% to 10%:

Genitourinary: Impotence (3% to 7%)

Nervous system: Asthenia (2% to 7%), fatigue (5% to 10%)

Postmarketing adverse events (all formulations):

Cardiovascular: acute myocardial infarction (heart attack), cardiac fibrillation, chest pain, edema, heart block, heart failure, hypertensive encephalopathy (with abrupt discontinuation), palpitations, rebound hypertension (with abrupt discontinuation) (Martinez-Raga 2013)

You will need to have close monitoring of blood pressure and heart rate and track alertness levels before and after starting, also before and after any dose changes.

Valproic acid

Depakote: 250mg 2-3 times daily.

Valproic acid has anti-inflammatory effects and polarizes macrophages towards an M2 phenotype. Histone deacetylase (HDAC) inhibitors are being studied for neural regeneration. In addition, valproic acid has important anticoagulant and anti-platelet effects and is an inducer of heat shock proteins. Valproic acid may be helpful for neurological symptoms. Treatment should be limited to less than 6-9 months due to the concern for the loss of brain volume particularly in those patients with cognitive dysfunction. In a cerebral ischemia/hypoxia model, resveratrol markedly enhanced the neuroprotective effects of valproic acid. Furthermore, resveratrol has been reported to reverse the toxicity of valproic acid. These data suggest that resveratrol (in a dose of 500 mg–1000 mg twice daily) should be recommended in patients prescribed valproic acid.

Induced hyperthermia and Cold Hydrotherapy

The role of sauna bathing and cold therapy (cold showers, cold baths) in patients with long COVID and vaccine injury is unknown. Regular sauna bathing has been proven to reduce all-cause and cardiovascular mortality, prolong life span, improve exercise performance, and improve the outcome of patients with neuropsychiatric disease. Induced hyperthermia increases the expression of heat shock proteins, which activates autophagy. In addition, heat therapy increases the expression of cell stress pathways, has antioxidant and anti-inflammatory effects, and improves mitochondrial function.

Cardio Miracle™ and L-arginine/L-citrulline supplements

Cardio Miracle is a supplement with over 50 ingredients formulated to increase nitric oxide (NO) production. The supplement contains L-arginine, L-citrulline, Beetroot (high in dietary nitrates), L-Ornithine, CoQ10, as well as a blend of fruit and vegetable phytonutrients. [www.cardiomiracle.com](http://www.cardiomiracle.com)

Sildenafil with or without L-arginine-L-Citrulline

Doses titrated up from 25 to 100 mg 2-3 times daily with L-arginine/L-citrulline powder twice daily.

Sildenafil doses were titrated up from 25 to 100 mg 2-3 times daily with L-arginine/L-citrulline 5000 mg powder twice daily. May be helpful for brain fog as well as microvascular disease with clotting and poor perfusion. Note that curcumin, resveratrol, EGGG and valproic acid all potentiate phosphodiesterase 5 (PDE5) inhibitors.

Pentoxifylline (PTX)

PTX ER, 400 mg three times daily.

Should be considered in those patients with severe microcirculatory disturbances. PTX is a non-selective phosphodiesterase drug that has anti-inflammatory and antioxidant effects. In addition, PTX improves red blood cell deformability and reduces blood viscosity, so can mitigate the hyper-viscosity and RBCs hyper-aggregation, which is linked with the development of coagulopathy in the vaccine-injured.

Maraviroc

Dose: 300 mg orally twice daily.

If 6 to 8 weeks have elapsed and significant symptoms persist despite the above therapies, this drug can be considered. Note Maraviroc can be expensive and has a risk of significant side effects and drug interactions. Maraviroc is a C-C chemokine receptor type 5 (CCR5) antagonist. While many long COVID and post-vaccine patients have been treated with Maraviroc, the role of this drug requires further evaluation.

Sulforaphane (broccoli sprout powder)

Dose 500 mcg – 1g twice daily.

While sulforaphane has many potential benefits in patients with COVID, long COVID, and post-vaccine syndrome, there is limited clinical data to support this intervention.

Dandelion (Taraxacum officinale)

Recommended at a lower dose in the main protocol, but can be tried in higher doses as well: 4-10 g three times daily (20-30mg/ml in hot water).

 The root, flower, and leaves of dandelion contain an array of phytochemicals that have has anti-inflammatory, antioxidant, hypolipidemic, antimicrobial, and anticoagulant properties. It is widely reported that dandelion is effective for ‘detoxifying’ spike protein.

VEDICINALS® 9

This unique phytopharmaceutical-based therapeutic suspension consists of nine bioactive compounds with antiviral, antiinflammatory, immune-modulatory, antipyretic, and analgesic properties. The compounds include Baicalin, Quercetin, Luteolin, Rutin, Hesperidin, Curcumin, Epigallocatechin Gallate, Piperine, and Glycyrrhizin. A number of these compounds are included in our protocol and the additional benefit of this 9 phytopharmaceutical combination over more widely available flavonoid combinations is unknown.

C60 or C60 fullerenes

C60, short for Carbon 60, is composed of 60 carbon atoms forming something that looks like a hollow soccer ball. Considered a “free radical sponge” and the single most powerful antioxidant ever discovered, its discoverers were awarded the Nobel Prize for Chemistry in 1996.

Intravenous immunoglobulin (IVIG) treatment

The role of IVIG in the treatment of vaccine injury is unclear. The response to IVIG in the general population of vaccine-injured patients is mixed, with very few showing long-term improvements. Many patients who report an initial improvement will relapse in 2 to 3 weeks. Other patients report no benefit, while some appear worsened. Due to the presence of non-neutralizing anti-SARS-CoV-2 antibodies and anti-ACE-2 antibodies, etc., the real possibility exists that IVIG will cause antibody-dependent immune enhancement (ADE) with a severe exacerbation of symptoms. IVIG is, however, recommended in specific autoimmune syndromes, which include Guillain Barré Syndrome, transverse myelitis, and immune thrombocytopenia. These patients should concomitantly be treated with the core immune-modulating therapies.

As a rule, immunosuppressive therapy should be avoided, as these drugs may exacerbate the immune dysfunction in vaccine-injured patients and prevent the restoration of immune homeostasis. A trial of immunosuppressive therapy may be indicated in patients with an established autoimmune syndrome who have failed other therapeutic interventions.

Emotional Freedom Technique (EFT)

Also known as Self Tapping or Emotional Acupuncture, is a form of counseling intervention that stimulates acupressure points by pressuring, tapping, or rubbing these points while focusing on situations that represent personal fear or trauma. EFT is found to be an “evidence-based” practice for anxiety, depression, phobias, and posttraumatic stress disorder (PTSD).

For more information [What is EFT Tapping, How Does it Work and How Do You Tap?](https://www.youtube.com/watch?v=2LS-I6vbHTA)

Dynamic Neural Retraining System

The Dynamic Neural Retraining System™ is a drug-free, self-directed program that uses the principles of neuroplasticity to help reverse limbic system impairment in the brain, and to regulate a maladapted stress response involved with many chronic illnesses such as Long Covid, Chronic Fatigue Syndrome, Multiple Chemical Sensitivity, Fibromyalgia, Chronic Lyme Disease, Food Sensitivities, Anxiety, Chronic Pain, Postural Orthostatic Tachycardia Syndrome, and many other conditions. For more information <https://retrainingthebrain.com/>

**PLEASE REMEMBER**

***Disclaimer: Lab results and symptoms MUST be interpreted by your PCP or you can contact us at*** [***mygotodoc.com***](http://www.mygotodoc.com) ***for guidance on your treatment for your current condition. While self-medicating may offer some relief in the short term, over time it only exacerbates your problems. DO NOT self-medicate, please contact us.***

Dr. Haider's Complete Protocol Video (may be somewhat outdated at times):

[Long Haul  & Vaccine Injury - The Complete Protocol.mp4](https://drive.google.com/file/d/1S51HvW44dt6AAu5ebFOMKaKo25_A_RXB/view?usp=share_link)