Decrease your Long Covid or Long Vax symptoms via

Fasting for Long COVID / Long Vax

v 1.3 Aug. 2025 Thomas Bunker PhD

DISCLAIMER

This is not medical advice and I am not a medical doctor. This protocol is loosely based on the 'Diet and Fasting for Long COVID' clinical trial. Although this is evidence based, it should be considered as preliminary evidence. We still have much to learn about Long COVID and how diet and intermittent fasting impact symptoms. If you have any medical issues or specific questions about how this protocol might affect them you should contact your doctor or other medical professional. While I strive to provide accurate information, be aware that information contained herein could be incorrect or dated.

CAUTION: If you have **DIABETES**, you are at increased risk for ketoacidosis while fasting or eating a low carb diet. Fasting may not be suitable if your BMI is < 20, you are pregnant or if you have a history of an eating disorder.

The Basics:

Why you should eat in a daily 10-hour window and try short fasts

Rather than trying endless supplements or other fads in the chronic illness community, try a holistic approach to helping your body fight inflammation and perhaps clear reservoirs of SARS-CoV-2 viral persistence. Our bodies know how to fast. Our hunter-gatherer ancestors often went though periods of food scarcity. What is unusual is the current super-abundance of food and calories. When we get very ill, we often loose our appetite. Why is that? Perhaps, because the food restriction triggers metabolic shifts that actually aid our immune systems to clear pathogens and better heal.

What you are in for (with the protocol)

This is not a passive "take-a-pill" treatment. This requires motivation, dedication, and active engagement. This protocol puts you "in control" of improving your health. Having guided hundreds through daily time-restricted eating and once weekly or bi-weekly night-day-night fasts, I can confidently say this will be easier than you think. Our bodies like a regular eating schedule. And when we fast for a whole day, if our bodies are prepared with two or three weeks of a no-sugar diet and daily 10-hour eating, then most can successfully do a night-day fast of about 23 hours for their first fast. Surprising, hunger is rarely an issue. If you do get hungry at your usual meal time, just drink a large glass of water and wait 5 minutes. Pretty soon the hunger meal-reminder has passed.

About 55% of long-haulers report fasting related flare-ups. Yes, that can be scary. But we are used to flare-ups, for 90% or more they are a part of our Long COVID experience. Be aware that any fasting-related flare-ups decrease in severity and length for good responders. In other words, this gets easier and easier after the first several fasts. Also, per the clinical trial, 50% will see a noticeable decrease in symptoms just during the first two-weeks of adopting a no-sugar diet and eating in a 10 hour daily window.

Evidence that fasting works

Per a recently published clinical trial, "Intermittent Fasting and a no sugar diet for Long COVID symptoms" 70% of participants experience a 30% or greater decrease in their overall symptom severity scores. The top half of responders averaged an amazing decrease of 80% in the severity scores and had 70% of their symptoms go away entirely. Unfortunately, how individuals respond varied widely. Long Vaxers as a group did very well. Of course, other unknown factors are likely at play. Is this worth your time and effort? After running the clinical trial and talking with every participant, I definitely think so! Even more than a year of the completion of the trial, some participants sent me e-mails saying that the trial was "a game changer" for their health. I hope that this is a game changer for you as well.

Fasting for Long COVID/Long Vax

One Page Summary:

Weeks 1,2,

Cut out foods with added sugars and alcohol. Eat more vegetables, salads and homemade soups. Eat a healthy, low "fast-carb" breakfast such as a vegetable omelet or steamed vegetables and a hard-boiled egg. Try to get 75% of your calories from plants and reduce your consumption of processed foods. Take an initial symptom survey so you can track your change in symptoms. *Note, in the Intermittent Fasting trial those that cut out dairy did not have better responses.*

Eat in a 9-10 hour window each day. Do not eat breakfast later than 9 am and do not skip breakfast. For example, eat only between 9 am and 6 pm daily. Drink tea instead of coffee. If you want a sweetener for your tea use 100% Monk Fruit extract. **Stop all supplements** as many likely interfere with the protocol. In the Intermittent Fasting trial, subgroup analysis showed that eating breakfast at 9 am or earlier correlated with better responses.

Week 3

Try a 23-hour water fast (night – day.) Do not eat after supper until supper the next day. Dissolve ½ teaspoon Morton Lite Salt in an 8 oz glass of water and drink that twice per fasting day for electrolytes. You may have a flare-up during the fast, or more likely after refeeding that may last for 12 to 48 hours, sometimes longer. You may experience worse fatigue for a few days after the fast. Allow 4-5 days for recovery and rest.

Weeks 4-7 If your symptoms did not flare-up or if the flare-up was manageable and resolved within 2-3 days, try 38 hours (night-day-night) for your 2, 3, 4th, and 5th weekly fasts. Begin your fast after supper, don't eat the next day and resume eating with a small breakfast such as a vegetable omelet. Dissolve ½ teaspoon Morton Lite salt in a glass of water and drink that twice a day for electrolytes. Also take 400 mg of Magnesium Glycinate each fasting day. Allow 5-6 days for recovery and rest. Try to do 4 fasts in 5 weeks. Women may opt to skip fasting before their menses.

If your symptoms flare-up strongly and the flare-up lasts 3 or more days....

Switch to an every-other week fasting schedule... and do not fast longer than 20-23 hours until your flare-ups are milder and resolve within 2-3 days.

Week 8, 9, 10 Rest weeks. Continue eating a healthy diet avoiding foods with added fructose, corn syrup, sucrose and other sugars. Try to walk some each day, but do not push yourself. Avoid all strenuous exercise. Avoid emotional and physical stress, pace yourself. At the end of week 10, take another symptom survey to assess your progress (or lack of progress).

And beyond

If you are seeing definite improvements, rest for 2-3 weeks and then repeat the weekly fasts if your BMI is still >20.

If you are not seeing improvements, can you improve your diet? Have you cut out all alcohol? Did you review your medications and supplements per Appendix A? Do you have too much stress in your life? Are you pacing yourself each day? Are you avoiding all strenuous exercise? Finally, as individuals are quite variable in how they respond, perhaps you should try some other treatment.

Tom's Keys to Recovery

In the big picture of Recovery from long covid I believe the most important factors are:

#1 Breakdown a percentage of viral proteins in our cells. To do this **induce cellular housecleaning** (e.g. autophagy) ONLY one or two consecutive days per week. Short bursts of autophagy "prime" or enhance our antiviral immune responses. This schedule allows 5-6 days a week for flare-ups, cellular rebuilding, and rest.

#2 **Avoid "extra" supplements** that may constantly stress your cells and may interfere with periodic strong autophagy. Taking autophagy supplements (see Appendix A) and some meds like statins or LDN on a daily basis might actually suppress antiviral immune responses.

#3 Daily time restricted eating - choose a regular 9-10 hour window in which to eat your meals.

#4 Follow a no added sugar, low processed carb diet and eat lots of beans, nuts, and vegetables. Avoid all alcohol. Optionally, avoid processed wheat. In general, try to avoid fried foods and processed foods. Cook your own food!

#5 **Avoid all strenuous exercise** and major emotional stressors. **Pace yourself.** Avoiding relapses and stress-related flare-ups is key.

Autophagy is a basic cellular housecleaning process that happens in every cell in our bodies. There is normally a low level of evening/nightly autophagy. Periodic strong autophagy is a way for our cells to clear out virus particles, viral protein aggregates, recycle damaged mitochondria, down-regulate inflammatory signaling and improve cellular health. The SARS-CoV-2 virus produces proteins that inhibit cellular autophagy in infected cells. Blocking autophagy likely helps the virus to hide from our immune system. I believe that we can enhance our antiviral immune responses by periodically triggering short bursts of moderate/strong autophagy. Initially when we fast, our cells use macroautophagy where many damaged cellular components including damaged mitochondria are degraded and recycled. Short fasts may be beneficial in a number of other ways as well.

Choose one day each week to fast, recognizing that the day after your fast you might have a flare-up.

Fasting is a proven way to induce autophagy but do NOT jump into a long fast. Start cautiously with just a supper to supper 23 hour fast and see how your symptoms respond. To fast efficiently, do not eat anything after supper. The next day, dissolve **1/2 teaspoon** of **Morton Lite Salt** in a large glass of water for a cheap and effective electrolyte solution. Drink two glasses a day when fasting and also take 200 mg of Magnesium Glycinate twice a day. Resume eating again with a light meal that begins with steamed vegetables. Once 23-hour fasts are manageable, next try a night-day-night (38 hour) fast. If that goes well, try to do similar weekly 38 hour fasts per the protocol schedule. Drink plenty of water to stay hydrated. Green or black tea is fine as well.

Phase I - How to get started

Just concentrate on diet and daily time-restricted eating for the first 2 to 3 weeks. This alone may improve or get rid of some of your symptoms. This helps to prepare your body for successful short fasts.

First, assess your symptoms via this link: https://forms.gle/WR4gupj2su4iRBmQ7

a) Choose a window for daily time-restricted eating

I think most long-haulers should start with changes to their diet and limit their eating to an 8 to 10 hr window per day. *The optimum eating window is likely earlier in the day... like 8 am to 5 pm*. But if it fits your schedule better 9 am to 6 pm is fine. Some women find that an 8 hr eating window causes evening symptoms flare-ups, in that case increase to a 9-10 hr eating window.

b) Cut out all foods with added sugars and processed carbs

Especially baked goods and sugary drinks. Avoid energy drinks such as Red Bull. Avoid fried foods. Eliminate all alcohol if possible. Eat lots of colorful vegetables. Cook your own meals as much as possible. Substitute tea for coffee. See Appendix B for "What can I eat?" Start with a salad or vegetables for every meal.

c) Review your medications and supplements

Not everyone experiences fasting or supplement related flare-ups. Perhaps because other supplements or medicines that are interfering with the induction of strong autophagy. Or perhaps because supplements or medicines are suppressing the antiviral immune response. As much as possible, *eliminate all supplements!* See the list of foods, medications, and supplements to avoid in **Appendix A**.

e) Pace yourself and avoid strenuous exercise

When you are tired, rest. Try a daily 20 min mid-day rest with an airline eye mask. If you feel up to it, walking and body movement exercises may be helpful but *do not push yourself*. Better to go slow than to overdo it. **Avoid all strenuous exercise**. Also be very cautious with moderate exercise. Many recovering long haulers trigger flare-ups or even relapses by hiking too far, jogging, or lifting weights.

Phase II - Periodic Fasting: 1 day per week

After 2 to 3 weeks of eating in a 9 to 10 hour window you may be ready for your first **23-hour fast**. For example, stop eating Friday evening, just drink water on Saturday and have a glass of salt water during your day of fasting. If you experience hunger pangs at breakfast or lunch time, just drink a large glass of water and wait 5-10 min. Resume eating with a smaller supper at your normal meal time.

CAUTION: About 10% of long-haulers experience a major flare-up of their symptoms after their first short fast. Old symptoms can reappear and existing symptoms can get worse for one, two, three days or even longer. Be patient, and know that your immune system is likely taking appropriate action against virally infected cells that the fast has "made visible" via the internal cellular housecleaning of autophagy.

Once your 23-hour fast goes well, you may opt to try a night-day-night fast of about 38 hours. When you are ready to try a 38-hour fast, stop eating after supper, fast all the next day, then resume eating in the morning with a small breakfast of say some steamed vegetables and an egg. This fast duration likely triggers a burst of strong autophagy. For about a third of long haulers this results in increased long covid symptoms during the afternoon or evening of their first fasting day. Interestingly, 50% of long-haulers experience their increased symptoms only *after* they resume eating. Most long-haulers find they feel better once their body is fasting as it is a mild anti-inflammatory state.

2-3 weeks after your 5th or last short-duration water fast assess your symptoms again via this link: https://forms.gle/WR4gupj2su4iRBmQ7

Expectations

Some people responded very well during the 'Diet and Fasting for Long COVID' trial and saw symptoms begin to disappear at the rate of about one per week. Others unfortunately, did not seem to respond at all. On average, participant Long COVID symptom severity scores decreased 52% over the 10-week trial. The trial included 4 short duration weekly water fasts in addition to a no-sugar diet and daily time-restricted eating. Meanwhile, the average number of patient-reported symptoms decreased 40%. The top-half of responders saw an average 81% reduction in their severity scores and a 70.8% reduction in the number of their symptoms. Interestingly, it appears that your chances of being a good responder are not influenced by being male or female, or beginning with more severe Long COVID.

Note, it may be easier to get to 90% recovered than it is to get to 100% recovered. A few fortunate long-haulers may fully recover. However, many seem to plateau at 80 to 90% of normal function. For a true cure, I personally believe that we await the development of new combination antiviral therapies for SARS-CoV-2. Another RNA virus caused disease, Hepatitis C, is curable with combinations of antivirals taken for 90 or 180 days.

The End Game

If you are fortunate enough to recover 90 to 100%... YEAH! If you no longer feel long covid symptoms during fasting or other autophagy induction your level of virus/viral debris is likely very low. DO NOT ASSUME that you can now do strenuous exercise or start drinking alcohol or eating sweet treats. **This virus can be very persistent; DO NOT give it an opening**. I have talked to several long-haulers that thought they were fully recovered... YET they suffered a long covid relapse after a night out drinking, a few easy runs, or an episode of emotional stress. Unfortunately, this can happen after 4 weeks, 8 weeks, or even 12 weeks. Please error on the side of caution and do not underestimate this virus! Fasting once every 2-3 months or so might be a good idea to help maintain your gains.

Diet

Please follow a strict no added sugars, low processed carb diet. This means avoid baked goods, candy, bread, wheat flour, and fried foods. This Fasting Protocol restricts foods that spike your blood sugar. This means avoiding foods that have a high glycemic load and high glycemic index. Avoid all foods with more than 5 or 6 g of sugars. This means no bananas, dates, figs, raisins, or prunes.

Other fruits such as apples and kiwis are good to eat. **Avoid wheat flour, white rice,** potatoes, and other starchy foods that are rapidly digested. Boiled and cooled sweet potatoes and squash are good. Quinoa, pearl barley and steel-cut oats in moderation are fine. Some meat and fish are fine, but avoid highly processed meats. Do try to avoid eating meat every day. *Strive to have at least half your plate at each meal covered with vegetables*. Hearty soups are great with lots of beans, split peas, and vegetables. Salads with walnuts, feta cheese and lemon/lime juice or balsamic vinegar are good.

Supplements

These are not needed but are OK to try:

- 1 tablet of Centrum minis daily **multivitamin**. (1/2 dose) We want to avoid excess folate (Vitamin B9) so get most of your nutrients from a healthy diet.
- 600 mg **NAC**. It is a good mucolytic and boosts glutathione; our cell's main antioxidant. **STOP NAC** a full day before you plan to fast.
- Optional for MCAS symptoms:
 500 mg Quercetin. To minimize activation of Mast Cells and block histamine release. May also help take cells out of a pro-viral growth mode. Like NAC, stop for fasting. Avoid Quercetin Phytosome

It is likely fine to take most medicines when doing 38-hour water fasts. If you need to take your medication with food, it is OK to take your pills with a 100-150 low protein, low carb snack. Stop ALL your vitamins and supplements during a fast. Especially stop Quercetin and NAC. Beware of brain fog! Get a day-of-the-week double pill box to help organize your supplements.

Resources for Tom's Fasting Protocol

Facebook group:

Long Covid – Improve via Fasting https://www.facebook.com/groups/2559838777474649/

Website: Intermittent Fasting for Long COVID. https://dietandfasting4health.com/patient-reported-long-covid-symptoms/

Supporting research:

Intermittent Fasting and a No-sugar Diet for Long COVID Symptoms: A Randomized Crossover Trial https://rdcu.be/eyhQa

Track your Long COVID or Long Vax symptoms:

I recommend taking the survey at least twice. Especially before you begin the Fasting protocol and again two weeks after your last short fast. https://forms.gle/WR4gupj2su4iRBmQ7

Appendix A

Supplements, medications, and foods that may interfere with the Autophagy Protocol

Health supplements to avoid:

Fish oils, Omega 3s, Krill Oil, Cod liver Oil, Astaxanthin, MCT Oil >1 Tbsp, Coconut Oil, powdered coconut oil, PEA, PQQ, Taurine. Take no more than 30 mg of Zinc daily as higher doses may trigger autophagy. High amounts of CoQ10 (200 mg as Ubiquinol) and L-Carnitine >300 mg may also trigger autophagy. Arginine, Leucine, Methionine, Serine and Glutamine are all pro-growth amino acids so avoid those. D-Ribose and Uridine are RNA building block precursors so avoid those also.

Herbal supplements to avoid:

Many herbal and spice extracts have compounds known to induce autophagy, so **PLEASE avoid ALL additional supplements** including:

Tumeric/Cucurmin, Luteolin, Lions Mane, Reishi Mushrooms, St. Johns Wort, Wormwood, Knotweed or Resveratrol, Licorice root, Boswellic acids, Moringa oleifera, Epigallocatechin-3-Gallate (EGCG), Pterostilbene, French Marine Bark extract or Pycnogenol, Diindolylmethane (DIM), Ashwaganda, Rhodiola, Schisandrin, Bromelain, Sulphoraphane, Oregano oil, Rosemary Oil, MACA, Ginko biloba, Danshen or Red sage, Spirulina, Stinging Nettle, Gota Kola, Black Seed Oil, Apigenin, Berberine, etc., etc.,

Longevity supplements to avoid:

ResveraCel, NMN, Nicotinamide Riboside (NR), Niacin or Niacinamide (more than 100 mg), Spermidine, Fisetin, Resveratrol, etc.

Medicines to avoid or limit:

Inducers of autophagy:

Statins such as Simvastatin and Atorvastatin

Atorvastatin at 5mg/daily is OK but avoid higher doses as it can cause flare-ups.

Metformin, Rapamycin (Sirolimus), LDN,

Pantoprazole (aka Protonix), Valaciclovir and Memantine. Carbamazepine, Doxycycline, Ivabradine, Methylene Blue, MRI Scans with contrast dye, Sulodexide, Pregabalin (Lyrica), Montelukast (Singular).

Potential blockers of autophagy:

Colchicine, hydroxychloroquine, quinone, amitriptyline, and nortriptyline. The antibiotic Azithromycin. The tricyclic antidepressant Anafranil (generic clomipramine).

Blockers of the Ubiquitin-Proteosome System:

Proton Pump Inhibitors (PPIs) such as lansoprazole (Prevacid), omeprazole (Prilosec), pantoprazole (Protonix), rabeprazole (AcipHex), and esomeprazole (Nexium) as these may reduce degradation of damaged proteins.

Foods to avoid as they trigger flare-ups

Olive Oil more than 1-2 teaspoons (5 -10 ml)

Broccoli sprouts

> 1/2 oz 85% Dark Chocolate

>1/4 fresh pineapple >1/2 C Pumpkin Seeds

> Salmon and sardines >1/2 clove garlic

> Superfood Red and Green powders

> 1/8 Cup red lentils >1/2 clove garlic

> 15 Cherries Some fermented foods such as Kefir

Appendix B What can I eat?

I believe that keeping our cells out of a rapid growth mode is helpful for fighting our long-haul infections. The virus wants 'full-speed ahead' cell metabolism so it can create the maximum number of new virions. To slow our metabolism it is important to avoid added sugars and refined carbohydrates. Basically, anything that promotes growth is good for the virus. By avoiding sugars, we avoid spikes in insulin and insulin-like growth factor, hormones that promote cell growth and proliferation. Also, avoid big meals, evening snacks and excess protein as these promote cell growth. The latest diet research suggests that a "plant-based" diet where you get about 75% of your calories from plants is best for long-term health.

Food order – To minimize blood sugar spikes, start your meals with vegetables, a salad or soup. End your meals with any carbs or a piece of fruit.

Foods to avoid and healthy substitutes:

Pop or Soda with added sugars

Candy

Fruit Juices

As much as possible, limit all alcoholic beverages. Especially avoid sweetened drinks.

Instead drink green or black tea or water

Wheat breads, tortillas, buns and crackers

Pastries, pies, donuts and cookies

Fried foods such as French fries, fried chicken and fried fish

Corn chips, potato chips and tortilla chips

Instead snack on baby carrots and sliced vegetables dipped in hummus

Boxed breakfast cereals

Instant flavored oatmeal packets

Instead prepare steel cut oats (1/2 cup oats in 1 1/4 cup boiling water, let sit 20-30 min).

Hard boiled eggs or vegetable omelets in moderation.

To minimize blood sugar spikes, eat some veges or an egg 5-10 min before eating your steel-cut oats.

Grapes and ripe bananas

Instead eat avocados, apples and kiwi fruits

Raisins, dried prunes, and dried apricots

Instead eat fresh nectarines, peaches and oranges

Hotdogs, cold-cuts and other processed meats in sandwiches

Instead eat pork tenderloin, lean cuts of beef and lower fat hamburger

Also try natural peanut butter on Wasa Lite rye-crisps

Big steaks and grilled chicken

Instead roast or boil your chicken or beef and add the cooked meats into vegetable stews and soups. Try barley or quinoa or riced cauliflower instead of pasta.

Burritos and tortillas

Instead make a "taco salad" without the wheat tortilla.

Sweetened Yogurt or Custard

Instead buy unsweetened Greek yogurt and add your own berries or add a dollop to your steel-cut oats.

Glycemic index and glycemic load

The short answer is anything with a lower glycemic index and lower glycemic load.

https://lpi.oregonstate.edu/mic/food-beverages/glycemic-index-glycemic-load

For example, let's compare eating rice to eating quinoa.

- Quinoa has a glycemic index of 53 and a glycemic load of 13.
- Rice has a glycemic index of 73 and a glycemic load of 30.

Quinoa has a much lower glycemic index and glycemic load (GL) so it is the better choice. It also wins nutritionally since it has all the essential amino acids. I would say that some quinoa with steamed vegetables is very healthy, but it is at the upper limit of what is acceptable when trying to limit SARS-CoV-2 replication in your cells. While most fruits are OK in season, bananas are above the cutoff point with a glycemic index of 62 and a glycemic load of 11 for a very small *banana* to 22 for a very large *banana*. So, OK to eat **half a banana** now and then, but not an entire banana. It is better to eat quinoa and bananas with other lower glycemic load foods such as nuts and whole vegetables.

A **boiled sweet potato** has a low GI of 44 and a medium **GL** of 11. But if baked for 45 minutes, the same sweet potato has a GI of 94 and a **GL** of 42, both extremely high. Baking has essentially turned the sweet potato into candy. Non-starchy vegetables, most whole fresh fruits, beans and legumes, whole grains and nuts are low to moderate GL and they are packed with vitamins, minerals, and phytochemicals. Wasa light rye crispbreads are a good bread substitute. Also pumpernickel bread has the lowest GL of any bread at 7.

https://extension.oregonstate.edu/sites/default/files/documents/1/glycemicindex.pdf

Tom's long covid favorites -

Breakfast:

Steel-cut oats with walnuts and berries I make this ahead of time with 3 C water and 1 1/4 C oats. I boil the water then add the oats and turn off the heat and let sit 20 min. This lightly cooks the steel-cut oats to lower the Glycemic Index and Glycemic Load (GL=9). I then cool and add a few walnuts and frozen wild blueberries, and 1/2 tsp Inulin prebiotic fiber. Store in small containers for a quick, easy, healthy breakfast. I first eat a hard-boiled egg to effectively lower the Glycemic Load of the entire breakfast.

Lunch/ Dinner

Tempeh with broccoli slaw steamed to soften the vegetables. Add some peanut butter and chili powder or other seasonings.

Natural peanut butter with avocado or tomato slices on a rye crisp. Eat with some plain yogurt.

Greek salad with 1 tsp canola or safflower oil and balsamic vinegar, diced cucumber, garbanzo beans, dill, and sunflower seeds with crumbled feta cheese.

Split pea soup with onions and carrots. Make a big pot.

Homemade chili with ground beef, onions, navy beans, black beans, diced tomatoes. Go light on the beef, heavy on the beans and tomatoes.

Zucchini and Summer Squash Italian soup. Add diced tomatoes, navy beans, and Italian seasonings.

Chicken soup with carrots, celery, substituting riced cauliflower or pearl barley for noodles.

Cubed and boiled acorn or butternut squash.

Morning or afternoon snacks:

Whole small apple, kiwi, nectarine, or mandarin orange.

Cauliflower, carrots, or snap beans with hummus

Greek yogurt (unsweetened) with added blueberries or raspberries or strawberries with added nuts

Feta Cheese or Mozzarella Cheese sticks

Peanuts or Cashews or Pistachios

Risks / Informed Consent

Much of this Intermittent Fasting Protocol is evidence based but it is still experimental. Daily time-restricted eating, periodic short fasts, and other methods of inducing putative autophagy are not proven methods to treat Long COVID or any other medical condition. Also, the trial did not directly measure the effect of eating a healthy diet.

A few cautions from WebMD or SelfDecode (this is NOT a complete list):

Fasting: Fasting for a few days probably won't hurt most people who are healthy, provided they don't get dehydrated. Your body needs vitamins, minerals, and other nutrients from food to stay healthy. If you don't get enough, you can have symptoms such as fatigue, dizziness, constipation, dehydration, and not being able to tolerate cold temperatures. If you have diabetes **your blood sugar levels could go dangerously low** (this is called hypoglycemia). That's especially true if you take medication like insulin to control your diabetes.

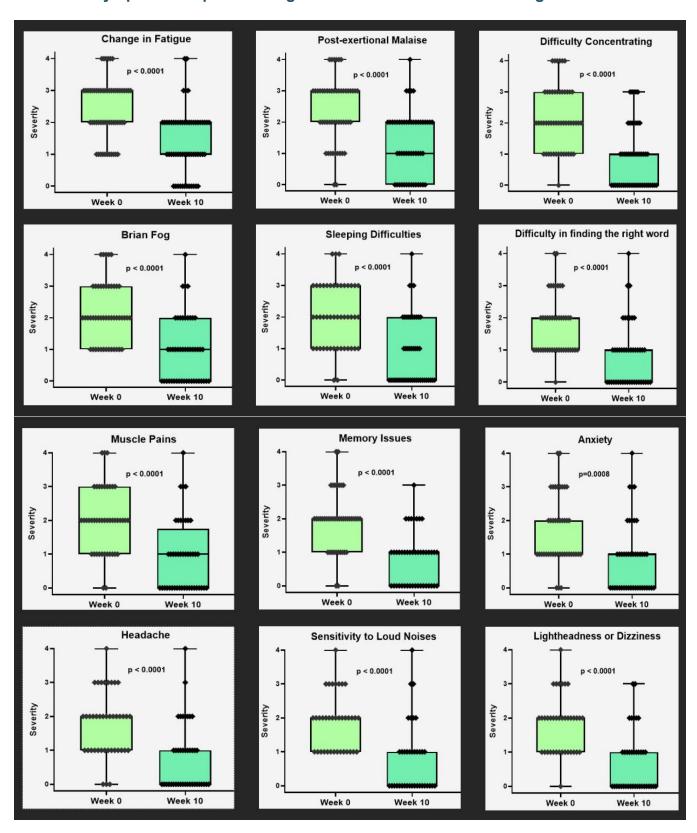
Longer fasts, > 4 days, should only be done under medical supervision as there is a risk of a life-threatening condition called "refeeding syndrome".

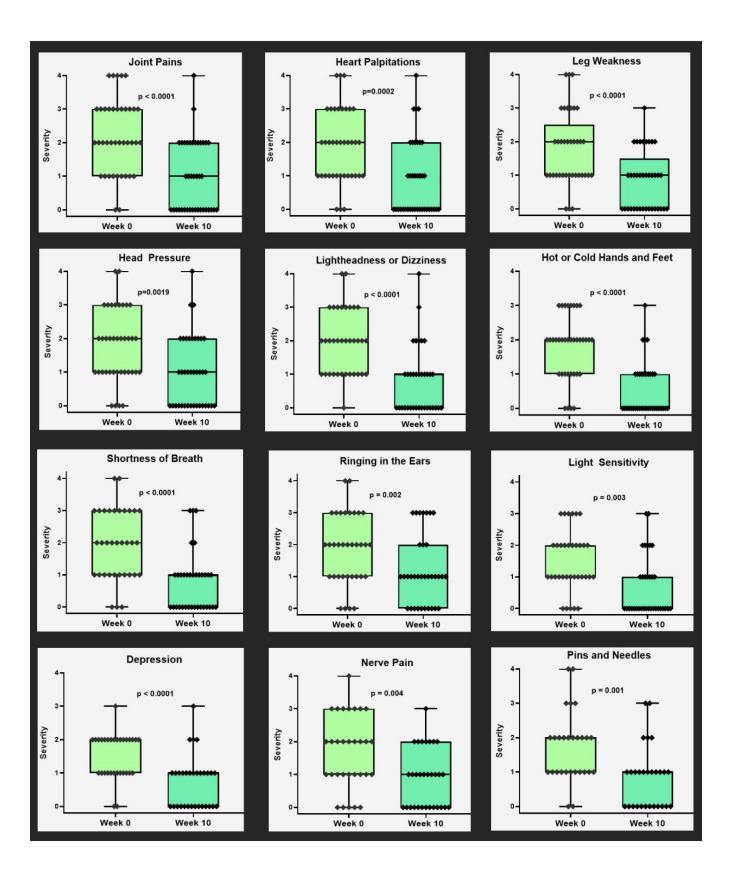
Quercetin might make kidney problems worse. Don't use quercetin if you have kidney problems. Quercetin can slow the breakdown of certain medications via the liver cytochrome C450 pathway.

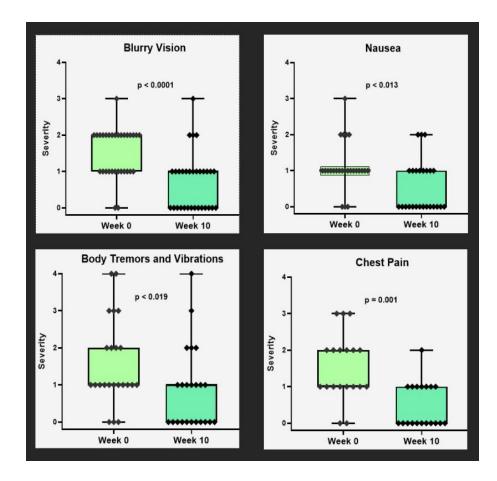
Consult with your medical provider about the advisability of fasting or using specific supplements to treat your medical symptoms.

Appendix C

How did symptoms respond during the 10-week Intermittent Fasting clinical trial?







The 28 Long COVID / Long Vax symptoms above in order of the most frequent (Fatigue) to the less frequent (Chest pain). These are **Box and Whisker Plots**. Each diamond represents a participant's initial score or final score after 10 weeks. Scale: 4 = Severe, 2 = Moderate, 0 = Not present Middle 50% severity ranges are shaded in green. You can see that overall, every symptom decreased in average severity and frequency. A score of zero means that the symptom was not present on the last 2 days of trial participation. Fatigue and PEM had the highest average severity and thus were the least likely to go away completely.

Of the other 32 symptoms tracked (not shown), they also went away completely about 40% of the time.