Fasting to potentially reduce Long Covid symptoms

# An overview of fasting options and safety considerations

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The goal of this document is not to convince people to fast, but to help those who want to try fasting to learn about the various fasting options. Also, we attempt to provide some basic safety information and safety considerations.

# DISCLAIMER

This is not medical advice and we are not medical doctors. Advice offered or implied is based on what seemed to assist recovery for a for a small number of individuals. Please work with a medical professional such as a naturopath or functional medicine doctor before you attempt a longer fast or severe calorie restriction. **Especially talk with your doctor before attempting to fast 4 days or longer**. Prolonged Fasting is not appropriate for everyone, especially if you are underweight, pregnant or on medications that cannot be stopped. Although Fasting for any length of time is not an approved therapy for Long Covid. While we strive to provide accurate information, be aware that information contained herein could be incorrect or dated.

# **Fasting Options for Long-haulers**

#### Listed in order of increasing difficulty, bodily stress, and potential risk.

#### #1 Time-restricted eating (TRE) for just 8-10 hours daily

Eat lots of vegetables and whole foods. Follow a no added sugar diet and avoid highly processed foods as much as possible. Identify your food intolerances (e.g., wheat, histamines, alcohol, caffeine, etc.). Avoid large meals. Eat your meals in the same window daily, for example from 8 am until 5 pm. No snacks after your eating window. Anecdotally, some that try eating in a 6 or 7 hour window experience flare-ups in the evening just from their too-narrow daily eating window.

#### #2 Caloric restriction for 5 days (Longo's Fasting Mimicking Diet)

Victor Longo PhD developed this diet for use by cancer patients undergoing chemotherapy. It seems to help patients better tolerate the stresses of radiation and chemotherapy. How it compares to 2 day water fasts for Long Covid is unknown. Generally, this is done once per month for the first three months. This diet can be done on your own or via purchase of the food for 5 days from Prolon.

#### #3 One, two or three day water fasts

For success, best to eat in an 8-9 hr. time-restricted window and adopt a no sugar diet for 2-3 weeks before trying your first water fast. Some report a 50% reduction in symptoms after 3 or 4 two day water fasts. Generally, stop eating in the late pm. Fast all the next day (or two or three), continue through the nights and end your fast with a smaller, low-carb meal in the morning. Space your water fasts a week or two or more apart.

#### #4 Liver-shrinking diet (800-900 calories per day) for one, two, or three weeks

This is a medically prescribed for obese patients prior to abdominal area surgery. It is a mostly protein and plant fiber diet. Fats, carbs, and calories are restricted. Anecdotally, several long-haulers have reported a 50% reduction in symptoms after following this diet for 2 weeks.

#### #5 Extended water fasts (5 days or longer)

Extended water fasts are poorly studied and poorly understood. They have two main medical risks; dangerously low blood sugar or hypoglycemia and Refeeding Syndrome. Both can be serious, while Refeeding Syndrome can be life-threatening.

This is largely the domain of fasting clinics such as the Buchinger Clinics in Europe and the TrueNorth Health Center in California. Many other fasting clinics and spas also offer supervised fasting. For those not able to afford the medically supervised clinics there are a few "fasting coaches" that will guide you through a successful water fast via remote meetings. These coaches are not medical professionals; however, some have experience with extended water fasting.

#### #5 Dry Fasts

Shorter dry fasts are performed by some religious groups. The combined stresses of nutrient deprivation plus dehydration create extra stress on cells and tissues. While a 3 day dry fast may be roughly equivalent to a 7 day water fast, this type of fasting is generally regarded as "harsher" and is the least studied form of fasting in people. Anecdotally, a few long-haulers have tried some version of the Filonov protocol. Some reported significant improvements some did not.

#### WHOM SHOULD NOT FAST

People that have are underweight or almost underweight. (BMI less than 20). People with Type I Diabetes. People with a history of heart conditions. People that were not in good health prior to the pandemic. Pregnant or lactating women. People with a history of an eating disorder. Finally, children should not fast.

## **FASTING PROTOCOLS**

Fasting is going without nutrients for a period of time and there are different fasting protocols that specify what type of nutrients you can consume during your fasting period.

Part of fasting's benefit is likely due to resting the digestive system and putting your body into a "repair" mode. Some people think they will die if they do not eat; this simply isn't true. Fasting studies show that medically supervised fasting is safe for up to 40 days, without any food! Fasting clinics typically recommend a minimum of 7 days to get results with many fasting clinics recommending 14-21 days to heal from a significant health issue, with some going as long as 40 days. Currently, it is unknown if prolonged water fasts are more beneficial that multiple shorter water fasts for Long Covid.

1. Eating only for 8-9 hours daily at the same times each day. This is known as Time-restricted eating (TRE). It is likely most helpful if you limit your eating 'window' to the day-light hours. This helps your natural day/night rhythms which may be thrown-off during Long Covid. It also allows your digestive system 15-16 hours of time for rest and repairs each day.

#### 2. Fast Mimicking Diet

The Fast Mimicking Diet (FMD) was developed by Dr Valter Longo with the goal of being as effective as water fasting, but safe to do outside of a fasting clinic. It allows 750-1200 calories a day with strict limits on protein, carbs, and fat, and is designed to last 5 days with 1 day of refeeding. The FMD does not allow supplements except for some specific electrolytes and it recommends no caffeinated beverages. To get the full benefits of the FMD, you need to repeat it once a month for 6 months. There is quite a bit of research showing benefits from the FMD approach, although it is important to note that some of this research sets a lower limit on the calories (300 kcal). To date there are no studies on FMD for Long Covid. The Prolon website says that you can expect to lose 5 pounds in 5 days. See the reference section for more information on the FMD

#### 3. One, two or three day water fasts.

For success, best to eat in an 8-9 hr time-restricted window and adopt a no sugar diet for 2-3 weeks before trying your first water fast. Some report a 50%-60% reduction in symptoms after three two day water fasts. Generally, stop eating in the late pm. Fast all the next day (or two) continue through the nights and end your fast with a smaller, non-carb meal in the morning. Space your water fasts a week or more apart.

1/3 report symptom flare-ups in the evening of their fasting days. It may affect your sleep.1/2 report symptom flare-ups after re-feeding. Typically, flare-up lasts 3 to 8 hours, but for about 10% it may last for several days after their first fast.

Jeffery Novack PhD and Thomas Bunker PhD are currently running a clinical trial to look at the safety and efficacy of TRE for 4 weeks vs one or two day water fasts for 4 weeks. "Diet and Fasting for Long Covid; a clinical trial

#### 4. Liver shrinking diet

The goal of the Liver shrinking diet is to lose 5 to 15 pounds of weight – fast. It is normally medically prescribed to obese patients prior to surgery in the abdominal cavity. Depending on how obese someone is, they are asked to follow the diet for one, two, or three weeks. The liver shrinking diet is high in protein and low in fat and carbs, so your body does not produce more glycogen and forces your body to pull it out of storage. Glycogen reduction causes the liver to shrink. For patients with higher BMIs, the liver will normally take longer to shrink. Typically, this diet consists of about 800 calories per day. "I had a low carb protein drink for breakfast and lunch and a low carb vegetable with protein cooked in as little fat as possible for dinner. I tried to limit my carbs to 20 grams a day." https://www.ibihealthcare.com/liver-shrinking-diet/

## 5a. Buchinger Protocol

Buchinger is a therapeutic fasting clinic in Germany that has been doing fasting therapy for many decades. Their protocol allows limited (up to 250 kcal) intake of vegetable broth, teas, juices, and water and specifies regular "colonic cleansing" to remove toxins accumulated while fasting. Buchinger also allows no supplements or caffeinated beverages. Buchinger has published several studies on the effectiveness of their fasting protocol and has had some success helping long covid patients. See the fasting references section.

#### 5b. Extended Water Fasts

Water fasting is considered the "Gold Standard" for healing from fasting, but is also the most challenging. Pure water fasting only allows you to consume water during your fast: No supplements, no coffee, no food of any kind. Some variations on water fasting recommend taking additional electrolytes. Water fasting may be beneficial for Long Covid and a research study by the TrueNorth Fasting Clinic on fasting for Long Covid is expected to be published soon. See the references sections for research studies on water fasting.

# **PROLONGED FASTING**

Prolonged fasting has been shown to help your body heal from a multitude of issues, including Metabolic Disorders, Autoimmune Conditions and even Cancer. That being said, fasting isn't an instant cure and cannot heal everything--it is simply a Naturopathic approach that encourages your body to heal. Some of the healing occurs during the fast, but in many cases much of the healing occurs in the weeks after the fast and some people may require multiple fasting sessions in order to fully heal. One primary healing mechanism in fasting is called Autophagy, which is the internal housecleaning within cells to remove damaged proteins and worn cellular components. It may also stimulate increased antiviral activity by your immune system reflected by occasional symptom "flare-ups." Aged senescent cells (aka 'zombie cells') might die during a fast and be

replaced by new healthy cells. In mice, fasting has been shown to regenerate parts of the immune system and boost stem cell regenerative capacity. For more information about how fasting works, see the reference section at the end of this guide.

# PREPARING FOR A PROLONGED FAST

Before starting a prolonged fast you should talk with your doctor to make sure you are able to fast. Some conditions make it unsafe to fast such as a low BMI, diabetes, pregnancy and taking certain medications. You should also discuss with your doctor what kind of medical supervision is needed during your fast. Unfortunately, many conventional doctors do not recognize fasting as a potential treatment, so you may need to find a functional or naturopathic doctor. Medically supervised fasting has been shown to be safe, but not without side effects (see the reference section). People who fast frequently experience the side-effects of sleep disruption, low blood pressure and there is the potential to pass out. The longer you fast the more likely you will have what is called a "healing crisis" where your covid symptoms will come back or intensify. It is important to have a fasting coach that can help you understand and interpret your symptoms to make sure it is safe to continue. A fasting clinic is ideal, but fasting at home with a telehealth coach is possible. Note: even with short 24, 36 or 60 hour water fasts, most longhaulers report transient flare-ups of their Long Covid symptoms. This can happen during the water fast (typically in the evening) or it can happen the day of refeeding. These flare-ups often last 2 – 8 hours but in some may continue for one or two days.

You should not just jump into a prolonged fast as it is hard on your body and you are likely to fail. It is important to teach your body how to burn fat for fuel. Start with a 24 hour or 36 hour fast and then try a 60 hour fast. Night-day1-night-day2-night = 60 hours. Once you handle those, you can consider doing longer fasts. When you are ready to start your prolonged fast it is recommended to shift to a vegan diet the week before you start, as meat is the most difficult to digest and eliminate and you want it all out of your body before the fast begins. If your fasting protocol does not allow coffee, it is good to stop drinking it the week before you fast so you do not have to deal with caffeine withdrawal symptoms while you are fasting.

# DURING YOUR PROLONGED FAST (more than 4 or 5 days)

A prolonged fast is a serious treatment and you will be home-bound (or in a clinic) during the fast. It is important to rest during your fast so your body can heal itself. If you are fasting at home with a telehealth fasting coach then you should monitor vital signs daily including heart rate, blood pressure and oxygen saturation and discuss having your electrolytes checked by lab testing a week prior to the end of your fast. It is normal for blood pressure to drop during your fast so be careful standing up and especially when getting out of a hot bath. Having someone home with you is highly recommended. Everyone has a different experience during their fast, but here are some things to expect.

1. You will be hungry for the first 4 days. The amount of hunger depends on how much fasting you have done before, and how many carbs you typically eat. After day 4 hunger usually goes away.

2. Many people have detox related symptoms during the first week, such as lower back pain from accumulated fluids in the lymphatic system. Dry brushing daily will help, and a lymphatic massage will help drain lymphatic fluids.

3. Common side effects of fasting include lower blood pressure, increased heart rate, sleep disruption, dizziness on standing and fatigue. For a more complete set of side effects, see the reference section.

4. You will lose weight during your fast. Someone water fasting burns approximately a half a pound of fat a day, plus water weight. Once the fast is over and you refeed, the water weight quickly returns.

5. People often experience what is called a "healing crisis" during a prolonged fast, where symptoms from a previous illness (like Covid) return or intensify. This can be quite alarming and it is important to be working with a fasting professional who can help you understand and interpret your symptoms, recommend ways to alleviate them, and determine if it is safe to continue.

# **REFEEDING AFTER A PROLONGED FAST**

Refeeding is the period of reintroducing food after a prolonged fast and is typically around half the length of the fasting period. It can be dangerous to add too many calories or certain types of foods back into your diet right away and there is a potentially fatal medical condition called "refeeding syndrome" that may occur if food is not reintroduced properly. Therefore, it is **extremely important to follow a refeeding plan that has been reviewed by a fasting professional**. For more information, see the reference section. Many people experience different taste sensations during and after refeeding, such as water tasting metallic and coffee not tasting "right". These will go away after several days and are nothing to worry about.

#### **HEALING AFTER THE FAST**

Some people report immediate improvements after fasting, such as return of taste or smell, and improvements in histamine sensitivity, but for most people, the majority of healing may happen after the fast is complete. Your body may continue to heal for weeks after the fast and it is wise to take advantage of this healing potential and continue to eat a balanced diet. Doing occasional 36h fasts to rest the digestion system can also be helpful.

# REFERENCES

- Fasting: Molecular Mechanisms and Clinical Applications <u>https://www.healthpromoting.com/sites/default/files/FastingMolecular</u> <u>Mechanisms.pdf</u>
- Fasting: How to Guide https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8151159/
- Study of Adverse Events During Water Fasting <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5819235/</u>
- Safety, health improvement and well-being during fasting <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6314618/</u>
- Dr. Jason Fung is a Canadian doctor with a long and track record of supporting patients to reverse diabetes through fasting. He has case histories published in medical journals. Many useful videos on his website. <u>https://blog.thefastingmethod.com/</u>
- FMD Fasting Publications <a href="https://www.valterlongo.com/scientific-articles/">https://www.valterlongo.com/scientific-articles/</a>
- Buchinger Fasting Publications <u>https://www.buchinger-</u> wilhelmi.com/en/publications-of-the-buchinger-wilhelmi-clinics/
- TrueNorth Fasting Publications
  <u>https://www.truenorthhealthfoundation.org/published-literature</u>
- Dry fasting the conventional view: <u>https://www.healthline.com/health/food-nutrition/dry-fasting</u>
- Refeeding Syndrome: what it is, and how to prevent and treat it <u>Refeeding</u> <u>Syndrome: what it is, and how to prevent and treat it</u>

# HELPFUL INFORMATION

- All you need to know about water fasting
  <u>https://www.medicalnewstoday.com/articles/319835</u>
- Water Fasting: 12 Strategies to Prepare Properly <u>https://drjockers.com/water-fasting/</u>
- Extended Fasting: Best Way to Break the Fast <u>https://drjockers.com/extended-fasting/</u>

# ANECDOTAL LONG COVID FASTING BENEFITS

- Could fasting hold a key to preventing and treating Long Covid <u>https://www.buchinger-wilhelmi.com/en/long-covid-fasting/</u>
- Healing from Long Covid with water fasting 2 Cases https://waterfasting.org/healing-from-long-covid-with-water-fasting/
- Healing Disease with Water Fasting Podcast (17:20)--publication pending.
  <u>https://www.chrisbeatcancer.com/dr-alan-goldhamer-healing-disease-with-water-fasting-and-a-plant-based-diet/</u>