

Fasting Mimicking Diet
Fat Fast with Butter Coffee, Butter Tea or Butter Broth
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This is one of many possible types of fasting. Strictly speaking, this isn't a fast, but it serves the purposes of a full water fast without so much difficulty. It takes some practice to be able to do a full water fast mostly because we haven't had enough practical experience with low-food situations. Without that practical experience our bodies have much more difficulty in switching from sugar and protein for energy to mobilizing and using fat for fuel. Consuming some fat eases you into the process of your body figuring out how to mobilize stored fat.

The goal with fasting mimicking is to bring down your insulin levels enough to allow your body to do two things well. The first is accessing your own body fat for fuel. The second is triggering a totally normal process in the body called autophagy.

Regarding accessing your own body fat for fuel: many of us are so used to eating all the time that our bodies never get much practice in accessing and using our own body fat as a source of energy. Aside from being incredibly useful for managing our weight, it is also very useful for keeping our energy more or less even, no matter when we might have last eaten. You can tell when this whole process is rusty when you miss a meal and then have all kinds of physical and emotional symptoms.

Stimulating autophagy is a major goal of fasting. Autophagy is the process that your body uses to clear out poorly functioning, so-called "senescent" cells. Senescent cells are those that are tagged for removal with autophagy. Autophagy also serves as a source for raw materials for tissue repair and maintenance while also providing some fuel when our food intake is low. If we haven't eaten much and our insulin levels remain low enough, a healthy body will clear out poorly functioning cells, damaged fats and proteins, and other cellular debris. Our bodies then use the materials from those cells either for fuel or for raw materials for building new, healthy cells.

Our ancestors commonly had times when food was scarce, sometimes for months at a time. We have always had very good ways to survive and even thrive in this situation.

This particular fasting protocol was born out of a desire for a simple fast that I could do while travelling or camping. I wanted a minimum of fuss and no cooking. This fast assumes that you have spent a few weeks limiting your food intake to an approximate 10 -12 hour stretch or less. That means that you eat all of your food within a consecutive 10 -12 hour stretch of time. The rest of the time you have water, water with lemon, tea, or coffee. This is called "time-restricted eating." During the no-food time, nothing with calories is consumed, nor are any non-calorie, artificially sweetened drinks, foods or even gum. (These all stimulate insulin release.) You are, of course, free to try the fast without this kind of prep, but it might be harder for you.

For the fast you will need the following depending on which version you do:

- Water, or water with lemon juice
- Up to six cups of vegetable broth for each day of the fast

- Up to one cup of chicken or beef broth for each day of the fast
- Sea salt.
- Miso for flavor, if that appeals. (I use the chickpea miso from the co-op. It has a nice, mild flavor.)
- Butter or ghee, MCT or Brain Octane oil (both are available at co-op's or Whole Foods), coffee, tea (black, green or herbal)

Overview of the fast

In the morning of each day of the fast, start the day with water with some added lemon, or some plain water. The water can be cool or warmer.

For this fast, you consume four tablespoons of fat throughout the day mixed with coffee, tea, vegetable broth, and/or chicken or beef broth. It doesn't matter if you use all Brain Octane or MCT oil, or if you use up to half of the fat as butter or ghee. Just make sure at least half is the Brain Octane or MCT oil. Four tablespoons of fat are about 500 calories. Brain Octane oil is a variant of MCT oil. It is more expensive. The advantage to using it is that the fats in this oil are only used for fuel in the body. These fats are not stored in the body. Protein and carbohydrates are minimized because they stimulate insulin release.

It really doesn't matter how you take the fat in. In general, the fast will be easier if you take in small amounts of fat through the day and into the evening rather than a lot over a shorter period of time. It doesn't matter if you do all broth or all coffee or all tea, or a mix and match of all of them. The broth, coffee and tea are just vehicles to get the fat in. That being said, I probably wouldn't recommend coffee or black tea in the evening.

After the morning water, or water and lemon, there are various options. Here are two.

Option One

If you want things to be extremely simple, put six cups of vegetable broth in a pot. You may substitute one cup of chicken or beef broth for a cup of the vegetable broth. Add 4 tablespoons of fat, making sure that 2-4 tablespoons are the Brain Octane or MCT oil. Make sure to add plenty of sea salt. And a small amount of miso, if you would like. It should taste salty but still be palatable. Blend it together with an immersion blender or in a regular blender. Put the mix into several thermoses for the day or just split the amounts and make a second batch later in the day.

We wash out salt when we fast. If we get low in salt, we will feel somewhat tired. Sip the broth through the day making sure that you have some left over for the evening. If you have it in a thermos, you might want to put in a shaker ball to mix in the fat before sipping it.

Option Two

Another option after starting the day with water, or water and lemon is to have a cup of vegetable, chicken, or beef broth with a bit of miso and some salt. Follow this with butter

coffee or tea. Here you make 32 ounces of coffee or tea, or a mix of the two with a total of 4 tablespoons of fat, again, with two tablespoons or more being Brain Octane or MCT oil. (A recipe for making butter coffee or tea is on my website, richardhruby.com.) Sip this through the day. In the evening have some broth, with miso if you'd like, again adding salt. One cup of broth each day can be beef or chicken, or you can have a mix of vegetable broth, and chicken or beef broth, or you can do two cups of vegetable broth if you prefer a vegetarian option.

Option one or option two is repeated daily for 2-5 days. On each day of the fast, please take 3-4 capsules of curcumin *or* resveratrol *or* quercetin *or* EGCG. Taking one of these supplements will stimulate autophagy and help in the removal of so-called senescent cells. Life Extension Foundation, lef.org has a product called Senolytic Activator which may also be used.

On the day you break the fast, have some water, or water with lemon again, or some tea, or some more butter coffee or butter tea. When you get hungry, have a higher fat, moderate protein, complex carbohydrate first meal. For example, have an easily digested protein such as eggs, fish or chicken along with some sweet potato and plenty of butter. Try to stick with the time-restricted eating, consuming all your food in a shorter window. Avoid binging. If you do overeat, you won't like how you feel.

Some tips:

- If you have a medical condition and are on medications, it is essential that you talk to someone that knows how to guide you. This is especially true with blood pressure medications and with medicines for diabetes. Be safe and ask.
- A good vegetable broth is called Bieler's broth. For this fast, I would suggest that you double the water in the recipe. Here is a link to one recipe that looks good: <https://pamelasalzman.com/bielers-broth-a-healing-restorative-soup-recipe/>
- Use plenty of sea salt. We lose quite a lot of salt initially when fasting.
- If you are prone to constipation, get some plain, unflavored psyllium and take a heaping tablespoon of this daily. Mix it with water and drink it quickly. This might be a good thing to do even if you have no problems with constipation.
- If you are getting some cramping in your legs, pay attention - again, to your salt. Also take some calcium and some magnesium. It will help.
- If you feel really "washed out," put ¼ tsp. of sea salt in some water or a bit of broth and water, and drink. It will often help. This may be more of an issue if you do the no-broth variant of this fast. If you do this kind of fast, I suggest that you take in some salt through the day.
- If you are feeling "toxic"- foggy minded, headachy, or you have "dragon breath," you might want to take some activated charcoal or bentonite.
- Stay busy. Notice the difference between hunger and boredom. Notice the difference between hunger and HUNGER. The latter typically shows up when we have a rusty mechanism for mobilizing and using body fat for energy. Typically, when fasting, after a certain point, the hunger goes away, and you just feel pretty good. This is a reliable signal that your insulin levels have dropped enough that there is free access to your stored body fat.

- The first time I did this mimicking fast, I was taking a class that required focus. It went well. The next time I did this I was doing some vigorous hiking near Lake Superior. In both cases, I did very well overall. I could think and I could work.
- Consider doing some strength training during your fast. This will help prevent a loss of muscle mass. This is not as important in very short fasts, but increasingly important in the 4-5 days fast, especially if done more frequently.
- If you have food addiction issues, care must be taken in how you approach a fasting protocol like this. Take it slow. Focus on time restricted eating but do the best you can to avoid looking for perfection. Focus on good enough. When you do start the fasting, do one day. Do it with a “fasting buddy” so that you can support each other.

As to how often to do this type of fast, it depends on your goals. You can do this protocol one day a week to good effect. You can do three days every 2-3 weeks. You can do 5 days once a month or once a quarter. This is something to discuss with someone knowledgeable about the effects and benefits of fasting.

I always laugh when I watch some of the survival programs where the participants are typically eating some sketchy food. These programs foster the sense that if we don't eat, we will die in short order. I can assure you that that will not happen.

Paraphrasing how one researcher put it, “even the leanest, 8% body fat bicycle racer still has 50,000 calories of fat available for fuel.” Considering that we typically burn 1800-2400 calories a day, you can do the math. The trick, of course, is getting at that fat - and triggering the benefits of autophagy to boot.

Attitude is everything with this type of fast. Think about your ancestors three or four generations back. Food scarcity was a constant companion for many of them. They managed to figure it out, and so can you.