

## Is Intermittent Fasting Simply the Next Fad Diet?

Don't be so "fast" to judge

If you keep up with the next big thing in diet and health, then perhaps you have heard about intermittent fasting. And perhaps you quickly dismissed it as crazy, unhealthy, or something you would or could never do. But fasting has been around for centuries. It is part of many religions and cultures. Many of us are advised to fast before a surgery or medical procedure. And no one has been worse for the wear by skipping a meal or two.

**Fasting is different from starvation.** Therapeutic fasting involves control. It is something you do with purpose. Fasting for health is not a dry fast. In fact, it is imperative to drink water during the waking hours of fasting. Black coffee and tea, even bone broth, can be incorporated, as well.

Jason Fung, MD, who wrote "The Complete Guide to Fasting", refers to fasting as the Seinfeld Diet. All of you familiar with the 1990's comedy series recall it was a show about "nothing". Fasting is the diet of nothing. There's nothing to do. You don't have to shop. You don't have to food prep. It doesn't matter if you have food allergies or sensitivities. It doesn't take any time. AND it doesn't cost anything!

It makes sense that eating nothing could lead to weight loss but you might be thinking how can eating nothing be healthy??? Well, it's all about insulin. Insulin is a hormone secreted by our bodies when we eat, specifically when we eat carbohydrates and even protein at excess amounts. Insulin is associated with hunger and cravings plus it works like a growth factor. People who cannot make their own insulin are referred to as Type I diabetics. And those that eat excessive amounts of sugar over time may develop insulin resistance. Insulin resistance occurs when the body simply stops responding to the persistent requests to produce more insulin and this may lead to Type 2 diabetes. Women with diabetes during pregnancy are known to have large babies due to the growth factor effect of insulin.

Insulin's job is to take the glucose out of our blood stream and store the unused amounts. The short-term storage form is glycogen which is stored in our liver but is limited to about 24 hours- worth of energy. Any additional glucose is then stored as fat which is long-term and essentially limitless storage. Basically, when we eat, our insulin levels are elevated and we are storing fat. When we don't eat (fast), our insulin levels are low and we can then burn our stored fat for energy.

During the hours that we eat (our "eating window"), our insulin levels are elevated. Over the years we have extended that eating window for more hours of the day. This leads to hunger, cravings and makes us bigger. Back in the 1950's, you ate 3 meals between 7am and 7pm (a 12-hour eating window and 12-hour fast) plus there was no snacking. Now we eat 3 meals and 3 snacks from when we wake up until we go to bed. We have extended our eating window each day to 16 hours or more leaving only the 7-8 hours we sleep for fasting.

**What are the benefits of fasting?** Again returning to our friend insulin, the magic lies here. When we do not eat, our insulin levels are low. But when we eat for more hours of the day, our insulin levels are chronically elevated. This leads to insulin resistance which not only may lead to diabetes, but heart disease, stroke, dementia and even cancer! There is no medication as effective as fasting for reducing the risk of or for treating these conditions. Fasting has been shown to reverse diabetes, and has been touted with anti-aging and anti-cancer benefits.

**Fasting is not for everyone.** Fasting is NOT recommended for pregnant or nursing women, children under the age of 18, and anyone who is malnourished or underweight. And if you are taking medications, particularly for diabetes, you should check with your doctor first.

**What are the different regimens for fasting?** If you decide to undertake a fasting regimen pick one that fits into your lifestyle. Keep in mind the food that you choose during your eating window will affect how hungry you may be during your fasting hours, at least initially.

During your “eating window”, choose healthy fats and protein and less carbohydrates as this will keep your insulin levels lower and control your hunger. Also remember that eating is often “routine”. We eat because it is time to eat and not necessarily because we are hungry. Therapeutic fasting is about incorporating a new routine.

**Time-Restricted Feeding** refers to short daily fasts. Fasting was a hot topic at Obesity Week this past year in Washington, D.C. Data presented on time-restricted feeding revealed that participants restricted to an 8-hour eating window (10am – 6pm) lost 2.6% of their body weight over 3 months. They were NOT advised on what foods to eat just when to eat. They naturally ate 350 calories less per day by limiting their window. Another study in resistance-trained men comparing the same total calories consumed in an 8-hour versus 12-hour eating window over 8 weeks, resulted in decreased fat mass while maintaining muscle mass. Their LDL (bad) cholesterol and triglyceride levels decreased as well.

Longer intermittent fasting regimens include a 24-hour fast (eating one meal each day 24 hours apart) or a 36-hour fast (eating dinner on day 1 then skip all meals day 2 and not eat again until breakfast on day 3).

Longer fasts are more powerful as you have used up all your glycogen (short-term energy storage) and then your body converts to burning your stored fat. These longer fasting regimens have also shown to improve all cholesterol levels and improve sugar and insulin values.

**Alternate-Day Fasting** alternates a day of fasting (either a 0-calorie water fast or a 500-calorie meal plan) with a regular day of eating. You might be concerned you will overeat the day after your fast and you are correct. However, studies have shown that most people only overeat by about 500 calories. If your normal regimen is 2,000 calories per day, the post-fasting day typically averages at about 2500 calories. Thus, the total calories consumed over the two days is much less. Some people follow a regimen of fasting 2 out of the 7-day week. This is referred to as a 5:2 diet.

**Extended Fasting.** This is the big leagues and definitely not a place to start. This refers to fasts longer than 42 hours. Extended fasting has been used in many cultures for centuries and has been studied in medical literature over the past century. During extended fasting, the brain stops using glucose for energy and switches to the use of ketones from fat burning.

**36-Hour Fasts.** To achieve a 36-hour fast, you would not eat for one entire day. If you finish dinner by 7 pm on day 1, your fast starts immediately afterwards. You would then skip all meals on day 2 and not eat again until breakfast at 7 am on day 3. This regimen can be repeated 3 times a week until your weight loss goal is achieved. Longer fasting durations are very powerful for both weight loss and improvement of medical conditions such as diabetes. (Please check with your doctor first)

## What about hunger?

The biggest fear about fasting is HUNGER. Hunger comes in waves. We typically feel hunger “pangs” about four hours after our last meal but it is NOT simply a physiologic response to not eating. It is more of a hormonal response. Due to circadian rhythms most people are not hungry first thing in the morning even though they have not eaten in 12-14 hours. Whereas hunger tends to be very high at dinner time even though we ate lunch 6 hours ago. Hunger is partly a learned phenomenon. Certain stimuli can make us hungry such the smell and sizzling sound of a steak.

Hunger is a learned response. If we always eat breakfast at 7 am or a snack at 4 pm, we will then be hungry each day because it is time to eat. Using intermittent fasting and randomly skip meals or vary the time at which we eat each day, we can break the “habit” of eating at set times. So instead of eating because it is time, we allow our body to tell us when to eat because we are hungry. Sometimes we are just too busy to eat lunch and the hunger just passes. To break the association of eating and any other stimuli (such as time or the smell of food), try to avoid mindless eating. Eat only at the table, not in front of the computer or TV. No eating in the car or on the couch. No eating at a ball game, movie or lecture hall. Thus, food becomes associated only with the kitchen table.

Going cold turkey can be difficult. It is often best to replace a bad habit with a better habit. Instead of having that bowl of ice cream on the couch in front of the TV after dinner, replace it with drinking a cup of herbal tea or seltzer water. This way you won’t feel like you are missing something. And over time you will not be hungry at that time! Try to avoid artificial sweeteners as these can still increase your insulin and thus a hunger response.

Fasting helps to break all the conditional stimuli related to hunger and thus will reduce, rather than enhance, hunger. Hunger is a state of the mind, not a state of the stomach.

**Fasting Mimicking Diet (FMD).** The FMD was created by Dr. Valter Longo, director of the Longevity Center at USC. He sought to replicate the benefits of water fasting while still providing the body with nutrition. His modifications avoid the calorie deprivation associated with other types of fasting. His protocol is based on decades of research, including several clinical studies.

Though anyone can follow the principles of fast mimicking, Dr. Longo sells a five-day weight loss program called the ProLon Fasting Mimicking Diet through L-Nutra, a nutrition technology company that he started. The ProLon Fasting Mimicking Diet plan includes five-day, prepackaged meal kits. All meals and snacks are whole-food derived and plant based. The meal kits are low in carbs and protein yet high in healthy fats like olives and flax. During the five-day period, dieters only consume what's contained within the meal kit. The low-calorie, high-fat, low-carb content of the meals causes your body to generate energy from noncarbohydrate sources after glycogen stores are depleted. This process is called gluconeogenesis.

According to one study, the diet is designed to provide 34–54% of normal calorie intake. This calorie restriction mimics the body's physiological response to traditional fasting methods, such as cell regeneration, decreased inflammation, and fat loss. ProLon recommends that all dieters consult a medical professional — such as a doctor or registered dietitian — before starting the five-day fast. The ProLon five-day plan is not a one-time cleanse and must be followed every one to six months to obtain optimal results.

**Intrigued?** An easy way to get started is to pick a 12-hour window, such as 7am-7pm, to consume all your meals. Then simply don't eat between 7pm and 7am. Please drink water, black coffee or tea, during your waking fasting hours. When you master that, shorten your eating window to 10 or even 8 hours each day and watch the magic happen.

## **Intermittent Fasting and a Low-carb/Ketogenic Diet**

Fasting works best when we incorporate it with a low carb/ketogenic style diet. This high (healthy) fat, moderate (quality) protein, low (unprocessed) carbohydrate way of eating, naturally keeps our insulin lower. And remember elevated insulin levels make us hungry, make us crave AND make us bigger!

Starting a ketogenic diet can be overwhelming whether you are simply trying to lose weight, or looking treat or prevent cancer, diabetes, heart disease or a slew of other medical conditions. You may have heard that keto is a low carb plan and the thought of eliminating carbs makes you anxious or perhaps even unwilling to try keto. Let's start with what you can have on a ketogenic diet.

## **What to eat on a ketogenic style diet**

A standard ketogenic diet is 75% (healthy) **fats**, 20% (quality) **proteins**, and 5% (unprocessed) **carbohydrates**. However, it is more important to focus on the quality of your food. The best approach is to eliminate processed sugary foods and make an effort to add healthy fats such as oily fish, olive oil, avocado, nuts and seeds. Remember, most diets are effective when directly compared because they exclude refined sugars, refined oils and all processed foods!

## Vegetables

Choose non-starchy vegetables especially organic foods. Look up the Dirty Dozen and Clean Fifteen for advice on how to choose organic produce

arugula	kale
asparagus	leaf vegetables (including endive and chicory)
bamboo shoots	leafy greens (including parsley and spinach)
broccoli	radishes and daikon
Brussels sprouts	rutabagas
cabbage	sauté greens
cauliflower	summer squash
celery	turnips
cucumber	zucchini

This next group of vegetables have a higher amount of carbohydrate content and may be best to avoid initially. After you are keto-adapted, you can add back in limited amounts

artichoke	green beans
beets	mushrooms
bell peppers	onion
carrots, raw	pepper, hot varieties
eggplant	tomato
fennel	winter squash, (including acorn and butternut)
garlic	

## Fruits

If your goal is to reach ketosis, you will need to limit your intake of fruits and berries due to their sugar content. Choose low-sugar berries and fruit and combine them with fats to lower their impact on blood glucose and insulin. Portion size is critical. Fruit sugars will raise blood glucose and insulin levels.

blackberries, 1/4 cup	apple, a few thin slices
blueberries, 1/8 cup	cherries, a few
raspberries, 1/4 cup	grapefruit, a few sections
strawberries, 1/4 cup	pear, a few thin slices

## Proteins

Whenever possible, choose high quality organic sources from pasture-raised or grass-fed animals. They have a healthier fat profile than animals that are fed grains plus they have less toxins in their fat. Use the app *Seafood Watch* to help you choose sustainable seafood at restaurants and grocery stores.

Organic sources of protein will be more expensive so watch the portions.

beef	poultry
eggs	protein powders (preferably non-dairy)
lamb	seafood (wild caught, tinned fish, shellfish)
pork (including bacon and sausage)	wild-game meats

## Dairy

Buy the highest quality dairy from pasture-raised animals on organic farms. Milk is not keto-friendly because it is high in lactose (milk sugar). Other dairy products can be classified as high fat or high protein. High fat dairy (cream, butter) contains estrogen metabolites (may be a problem for people with hormone sensitive cancers). High protein dairy (cheese, yogurt) can stimulate insulin production.

Dairy may have special issues for some people and may be best to eliminate. If you are lactose intolerant, you lack the enzyme necessary to break down lactose sugar. High-fat dairy such as butter and cream contain very little lactose. Or if you an allergy to the casein protein found in dairy, this may cause an inflammatory response.

Limit dairy intake and choose products from animals that are pasture-raised.

butter and ghee (clarified butter)	heavy whipping cream, organic
full-fat cream cheese	sour cream
hard cheese (cheddar, parmesan)	

## Nuts and Seeds

Nuts and seeds are a great source of healthy fats. But it is easy to overeat them. Some nuts contain some carbohydrates and protein as well as high levels of pro-inflammatory omega-6 fatty acids. Stick to this list of keto-friendly nuts and seeds and use sparingly more like a condiment.

almonds (including butter, milk, flour)	pecans
Brazil nuts (2-3 per day)	walnuts
coconut meat, unsweetened	chia seeds
hazelnuts	flaxseeds
macadamias	hemp hearts

## Avocados and Olives

Although considered fruits, these two foods are of special mention as they are high in healthy monounsaturated fats with little or no carbohydrate or protein. Of note, if you are allergic or sensitive to latex, you may have a cross-reaction with avocados.

## Fats and Oils

Keto diets are very high in fat, so quality, composition, and balance are important. Look for cold-pressed organic varieties and avoid all heat-extracted and refined (solvent-treated) oils. Never use soybean or vegetable oils—they are high in omega-6 and (unless they are non-GMO) have been exposed to glyphosate (Roundup). When using oils for sautéing, keep the heat and cooking times as low as possible.

animal fats (including lard and tallow)  
avocado or macadamia oil  
butter or ghee (grass-fed)  
buttery spreads such as Melt or Earth Balance  
coconut, MCT or caprylic (C8) oil

mayonnaise, organic or homemade  
omega-3 fish oils  
omega-3 oil from flax, chia or hemp  
olive oil (extra virgin)  
salad dressings, organic with healthy oils

## Sweeteners

It is best to lower your “sweet thermostat”. Dulling your desire for sweets helps you make better food choices, as you less likely to choose poor-quality, low nutritive foods that are “sugar-free”. If you must use a sweetener, stick to erythritol (a non-fermentable sugar alcohol) or stevia (a natural plant sweetener).

## Spices, Flavorings, and Seasonings

These items add variety and interest to your meals. Some also have health benefits as anti-inflammatories or aid in maintaining blood glucose control. Be careful with commercial spice mixes. They often have added sugars, starches, and flow agents, so read the ingredient labels carefully. Avoid any seasoning that lists monosodium glutamate (MSG) or any type of hydrolyzed vegetable or soy protein.

basil  
black pepper, cayenne pepper, chili  
pepper  
chives  
cilantro  
cinnamon  
cloves  
cumin seeds  
dill  
ginger  
mustard

nutmeg  
paprika  
parsley  
peppermint  
rosemary  
sage  
thyme  
turmeric  
curry  
garlic powder  
onion powder

oregano  
lemon juice  
pure extracts, such as vanilla  
orange oil  
peppermint  
traditional condiments  
vinegar (distilled or apple cider is best; no balsamic or malt)  
unsweetened cocoa powder salt

## Beverages

Water is best. Avoid beverages with artificial sweeteners. Addicted to caffeine? Best to cut back before you start. Cut back to 1 cup in the morning or eliminate it entirely. Caffeine might raise blood sugar levels in some people and can contribute to dehydration

water  
clear broth  
sparkling water, seltzer, or club soda  
limited amounts of stevia-sweetened drinks

decaf coffee or black tea  
herbal tea  
unsweetened almond or flax milk  
unsweetened boxed coconut milk

## Planning your keto meals

### Breakfast

Pick your favorite protein: eggs, uncured bacon, sausage, cheese, smoked salmon, protein shake  
What fats and oils will work with this meal: butter, coconut oil, cream  
Add some veggies: spinach, zucchini

*Example:* Egg Breakfast—2 eggs with a strip of bacon (add butter to the beaten raw eggs) and a serving of vegetables sautéed in olive oil

### Lunch

Start with 2-3 cups of salad greens with ½ an avocado  
Add your protein: chicken, tuna, sardines  
Serve with olive oil, salad dressing or mayonnaise

*Example:* Chicken Caesar Salad—3 cups of salad greens with ½ avocado and portion of cooked meat or poultry. Serve with olive oil and vinegar dressing

### Dinner

Pick your protein: beef, salmon, chicken  
Select veggies: broccoli, Brussels sprouts, asparagus  
Choose a fat or oil: butter, olive oil, mayonnaise

*Example:* Fish Dinner—baked or poached fish with a vegetable such as broccoli or asparagus sautéed in olive oil.

### Snacks

Choose high-fat snacks and ONLY when you need them between meals i.e. nuts, seeds, cheese, “fat bombs”. Fat bombs are snacks containing high fat ingredients that satisfy hunger and cravings.

## Top 5 Tips for Eating with Awareness

Taking time for the eating experience can help us reduce cravings, control portion sizes, and enhance our interconnectedness with the flow of people, animals, and nature that contributed to the food on our plate. Here are some tips to enhance your eating experience to make it deeper and more healing:

1. **Eat in a setting where you feel relaxed.** If you are eating in the car, in front of a computer doing work, or on the phone, you are not able to give full attention to eating, and, as a result, you may tend to eat more or eat foods that are not healing. If you are feeling emotional and are tending towards eating, see if you can first acknowledge and express your emotions rather than eating them. These practices will all help with the digestive process—helping you get the most out of food.
2. **Eat a palette of colors.** Many people eat a “brown, yellow, and white” diet. Instead of lackluster, bland eating, try to sample all the colors of food, including red, orange, yellow, green, and purple, to ensure that you get enough of the important phytochemicals that have health benefits.
  - **Red:** Red apples, beets, red cabbage, cherries, cranberries, pink grapefruit, red grapes, red peppers, pomegranates, red potatoes, radishes, raspberries, rhubarb, strawberries, tomatoes, watermelon ·
  - **Orange:** Apricots, butternut squash, cantaloupe, carrots, mangoes, nectarines, oranges, papayas, peaches, persimmons, pumpkin, tangerines ·
  - **Yellow-Green:** Green apples, artichokes, asparagus, avocados, green beans, broccoli, Brussels sprouts, green cabbage, cucumbers, green grapes, honeydew melon, kiwi, lettuce, lemons, limes, green onions, peas, green pepper, spinach, zucchini ·
  - **Blue-Purple:** Purple kale, purple cabbage, purple potatoes, eggplant, purple grapes, blueberries, blackberries, boysenberries, marionberries, raisins, figs, plums
3. **Eat with others.** Eating is a communal event, a social occasion. The act of sharing food with others can be enriching for everyone involved and may help you with focusing on the people than on the amount of food eaten.
4. **Sample a variety of flavors.** When we don’t eat all of the variety of flavors at a meal—salty, sweet, bitter, pungent, and savory—we may come away from the meal feeling like we are “missing something,” and ultimately, food cravings can result. By getting small amounts of all the flavors of food, a practice common in other cultures such as in Asia, we may feel more fulfilled and desire less food after a meal.
5. **Chew thoroughly.** The process of digestion begins in the mouth where enzymes are secreted in saliva to break down food. If we do not properly chew and make our food morsels smaller, we may be subject to indigestion and other digestive problems. The act of eating allows us to be mindful, and in the moment, of our exchange of energy with foods.