

Basics-Intermittent Fasting- Window Eating

Intermittent fasting is the ancient secret of health. It is ancient because it has been practiced throughout all of human history. It's a secret because this powerful habit has been virtually forgotten. But now many people are re-discovering this dietary intervention. It can carry huge benefits if it is done right: weight loss, increased energy, reversal of type 2 diabetes and many other things. Plus, you'll save time and money. In this beginner's guide you can learn everything you need to know about intermittent fasting.

Introduction – a natural part of life

Intermittent fasting – isn't that starvation?

No. Fasting differs from starvation in one crucial way. Control. Starvation is the *involuntary* absence of food. It is neither deliberate nor controlled. Fasting, on the other hand, is the *voluntary* withholding of food for spiritual, health, or other reasons.

Food is easily available, but you *choose* not to eat it. This can be for any period of time, from a few hours up to days or even weeks on end. You may begin a fast at any time of your choosing, and you may end a fast at will, too. You can start or stop a fast for any reason or no reason at all.

Fasting has no standard duration, as it is merely the absence of eating. Anytime that you are not eating, you are fasting. For example, you may fast between dinner and breakfast the next day, a period of approximately 12-14 hours. In that sense, fasting should be considered a part of everyday life.

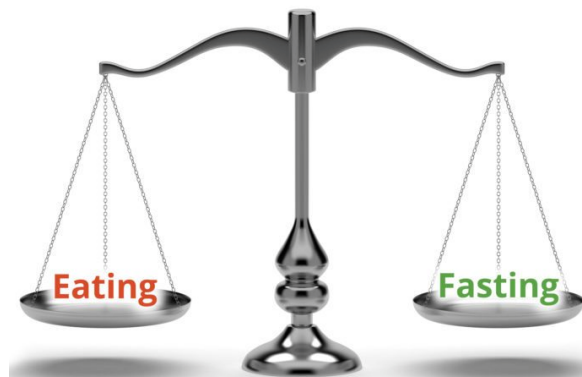
It is perhaps the oldest and most powerful dietary intervention imaginable.

Consider the term "break fast". This refers to the meal that breaks your fast – which is done daily. Rather than being some sort of cruel and unusual punishment, the English language implicitly acknowledges that fasting should be performed daily, even if only for a short duration.

Fasting is not something queer and curious, but a part of everyday, normal life. It is perhaps the oldest and most powerful dietary intervention imaginable. Yet somehow we have forgotten its awesome power and ignored its therapeutic potential.

Learning how to fast properly gives us the option of using it or not.

How does intermittent fasting work?



At its very core, fasting simply allows the body to burn off excess body fat. It is important to realize that this is normal and humans have evolved to fast without detrimental health consequences. Body fat is merely food energy that has been stored away. If you don't eat, your body will simply "eat" its own fat for energy.

Life is about balance. The good and the bad. The yin and the yang. The same applies to eating and fasting. Fasting, after all, is simply the flip side of eating. If you are not eating, you are fasting. Here's how it works:

When we eat, more food energy is ingested than can immediately be used. Some of this energy must be stored away for later use. Insulin is the key hormone involved in the storage of food energy.



Insulin rises when we eat, helping to store the excess energy in two separate ways. Sugars can be linked into long chains, called glycogen and then stored in the liver. There is, however, limited storage space; and once that is reached, the liver starts to turn the excess glucose into fat. This process is called De-Novo Lipogenesis (meaning literally Making Fat from New).

Some of this newly created fat is stored in the liver, but most of it is exported to other fat deposits in the body. While this is a more complicated process, there is no limit to the amount of fat that can be created. So, two complementary food energy storage systems exist in our bodies. One is easily accessible but with limited storage space (glycogen), and the other is more difficult to access but has unlimited storage space (body fat).



The process goes in reverse when we do not eat (fasting). Insulin levels fall, signaling the body to start burning stored energy as no more is coming through food. Blood glucose falls, so the body must now pull glucose out of storage to burn for energy.

Glycogen is the most easily accessible energy source. It is broken down into glucose molecules to provide energy for the other cells. This can provide enough energy to power the body for 24-36 hours. After that, the body will start breaking down fat for energy.

So, that the body only really exists in two states – the fed (insulin high) state and the fasted (insulin low) state. Either we are storing food energy, or we are burning it. It's one or the other. If eating and fasting are balanced, then there is no net weight gain.

If we start eating the minute we roll out of bed, and do not stop until we go to sleep, we spend almost all our time in the fed state. Over time, we will gain weight. We have not allowed our body any time to burn food energy.

To restore balance or to lose weight, we simply need to increase the amount of time we burn food energy (fasting). In essence, fasting allows the body to use its stored energy. After all, that's what it is there for. The important thing to understand is that there is *nothing wrong with that*. That is how our bodies are designed. That's what dogs, cat, lions and bears do. That's what humans do.

If you are constantly eating, as is often recommended, then your body will simply use the incoming food energy and never burn the body fat. You'll only store it. Your body will save it for a time when there is nothing to eat. You lack balance. You lack fasting.

Benefits of intermittent fasting

Fasting's most obvious benefit is weight loss. However, there are a myriad of benefits beyond this, many of which were widely known in ancient times.

The fasting periods were often called 'cleanses', 'detoxifications', or 'purifications', but the idea is the same – to abstain from eating food for a certain period of time for health reasons. People imagined that this period of abstinence from food would clear their bodies' systems of toxins and rejuvenate them. They were more correct than they knew.

Some of the purported physical benefits of fasting include:

- Improved mental clarity and concentration
- Weight and body fat loss
- Lowered blood insulin and sugar levels
- Reversal of type 2 diabetes
- Increased energy
- Improved fat burning
- Increased growth hormone
- Lowered blood cholesterol
- Prevention of Alzheimer's disease (potential)
- Longer life (potential)
- Activation of cellular cleansing (potential) by stimulating autophagy (a discovery that was awarded the 2016 Nobel Prize in medicine)
- Reduction of inflammation

Advantages

Fasting offers many important unique advantages that are not available in typical diets.

Where diets complicate life, fasting simplifies. Where diets are expensive, fasting is free. Where diets can take time, fasting saves time. Where diets are limited, fasting is available anywhere. Where diets have variable efficacy, fasting has unquestioned efficacy. There is no more powerful method for lowering insulin and decreasing body weight.

Different Ways to Fast

Shorter fasts (<24hrs)

Fasting offers infinite flexibility. You can fast for as long or short as you like, but here are some popular regimens. Generally, shorter fasts are done more frequently.

16:8

This involves daily fasting for 16 hours. Sometimes this is also referred to as an 8-hour eating 'window'. You eat all your meals within an 8-hour time period and fast for the remaining 16 hours. Generally, this is done daily or almost daily.

For example, you may eat all your meals within the time period of 11:00 am and 7:00 pm. Generally, this means skipping breakfast. You generally eat two or three meals within this 8-hour period.

20:4

This involves a 4-hour eating window and a 20-hour fast. For example, you might eat between 2:00 pm and 6:00 pm every day and fast for the other 20 hours. Generally, this would involve eating either one meal or two smaller meals within this period.

Longer fasts (>24 hours)

24-hour fasts

This involves fasting from dinner to dinner (or lunch to lunch). If you eat dinner on day 1, you would skip the next day's breakfast and lunch and eat dinner again on day 2. This means that you are still eating daily, but only once during that day. This would generally be done two to three times per week.

5:2 fast

Dr. Michael Mosley popularized this variation in his book 'The Fast Diet'. This involves 5 regular eating days and 2 fasting days. However, on these two fasting days, it is permitted to eat 500 calories on each day. These calories can be consumed at any time during the day – either spread throughout the day, or as a single meal.

36-hour fasts

This involves fasting for the entire day. For example, if you eat dinner on day 1, you would fast for all of day 2 and not eat again until breakfast on day 3. This is generally 36 hours of fasting. This provides more powerful weight loss benefit. The other great benefit is that it avoids the temptation to overeat dinner on day 2.

Extended fasting

You can fast almost indefinitely. Generally for fasts greater than 48 hours, I recommend a general multivitamin to avoid micronutrient deficiency. The world record for fasting is 382 days, so going 7-14 days is certainly possible.

I discourage people from fasting for more than 14 days due to high risk of re-feeding syndrome.

Who should NOT fast?

You should not fast if you are:

- **Underweight** (BMI < 18.5)
- **Pregnant** – you need extra nutrients for your child.
- **Breastfeeding** – you need extra nutrients for your child.
- **A child under 18** – you need extra nutrients to grow.

You can fast, but may need supervision, under these conditions:

- If you have diabetes mellitus – type 1 or type 2.
- If you take prescription medication.
- If you have gout or high uric acid.

Common Questions**Won't fasting put me into starvation mode?**

No. This is the most common myth about fasting. In fact, the truth is just the opposite. Studies conclusively show that fasting increases basal metabolic rate.

Can I exercise during fasting?

Yes. You should continue all your usual activities, including exercise, while fasting. You do not need food to provide energy for exercise. During this time, your system will burn body fat for energy. Excellent!

What are the possible side effects?

There can be a number of possible nuisance side effects. Here's what to do if you encounter them:

- **Constipation** is common. Less going in means less going out. You don't need medications unless you experience discomfort. Standard laxatives can be used to help.
- **Headaches** are common and tend to disappear after the first few times on fasts. Taking some extra salt often helps mitigate such headaches.
- Mineral water may help if your stomach tends to gurgle.
- Other possible side effects include **dizziness, heartburn and muscle cramps**.
A more serious side effect is the **refeeding syndrome**. Fortunately, this is rare and generally only happens with extended fasts (5-10 days or more) when one is undernourished.

Why does my blood sugar go up during fasting?

This is due to hormonal changes that occur during fasting. Your body is producing sugar in order to provide energy for your system. This is a variation of the Dawn Phenomenon.

How do I manage hunger?

The most important thing to realize is that hunger passes like a wave. Most people worry that hunger will continue to build until it is intolerable, but this does not happen. Instead, hunger comes in a wave. If you simply ignore it and drink a cup of tea or coffee, it will often pass.

During extended fasts, hunger will often increase into the second day. After that, it gradually recedes; and many people report a complete loss of hunger sensation by day 3-4. Your body is now being powered by fat. In essence, your body is 'eating' its own fat for breakfast, lunch and dinner and therefore is no longer hungry.

Won't fasting burn muscle?

No. During fasting, the body first breaks down glycogen into glucose for energy. After that, the body increases fat breakdown to provide energy. Excess amino acids (the building blocks of proteins) are also used for energy, but the body does not burn its own muscle for fuel.

It would be a long stretch of the imagination to think that our bodies store energy so carefully in the form of glycogen and fat only to burn muscle when it is needed.

Fasting has been practiced for thousands of years without difficulty. In my experience with over 1,000 patients on various fasting regimens, exactly zero have complained that they have noticed significant muscle loss.

What are the top tips for intermittent fasting?

Here are the nine top tips, briefly:

- Drink water
- Stay busy
- Drink coffee or tea

- Ride out the hunger waves
- Don't tell anybody who is not supportive that you are fasting
- Give yourself one month
- Follow a low-carb diet between fasting periods. This reduces hunger and makes fasting much easier. It may also increase the effect on weight loss and type 2 diabetes reversal, etc.
- Don't binge after fasting

How do I break a fast?

Gently. The longer the fast, the more gentle you must be. For short duration fasts, eating too large a meal after fasting (a mistake that we have ALL done, myself included) will usually give you a stomachache. While this is not serious, people learn quickly to eat as normally as possible after a fast.

Isn't it important to have breakfast every morning?

No, it's not. This is an old misconception based on speculation and statistics, and it does not hold up when it's tested. Skipping your morning meal just gives your body more time to burn fat for energy. Since hunger is lowest in the morning, it is often easiest to skip it and break your fast later in the day. Learn more:

Can women fast?

Absolutely. The only exception is women who are underweight, pregnant or breastfeeding. Other than that, there is no reason not to fast. Women have problems during fasting, but so do men. Sometimes women do not get the results they want, but that happens to men, too.

Women have fasted for thousands of years without incident. Studies show that the average weight loss for women and men who fast is similar.

Isn't fasting the same as reducing calories?

No. Not at all. Fasting reduces the time you spend eating and addresses the question of 'when to eat'. Calorie reduction addresses the question of 'what to eat'. They are separate issues and should not be confused with each other.

Fasting does reduce calories but it's benefits extend far beyond that.

Will I lose weight?

Absolutely. It is almost inconceivable that you will not lose weight if you do not eat.

I call fasting 'The Ancient Secret of Weight Loss' because it is one of the most powerful dietary interventions for weight loss, yet it has been almost completely ignored in recent years.

How to Get Started

Now that you know all the essentials of fasting, how do you get started? You just follow these steps:

- Decide what type of fast you want to do
 - Decide upon the length of time you want to fast
 - Start fasting. If you do not feel well, or if you have any concerns, then stop and seek help
 - Continue all your usual activities outside of eating. Stay busy and live normally. Imagine you're "eating" a full meal of your own fat
 - Break the fast gently
 - Repeat
- Yes. It really is THAT simple.