

## Dr. Allyn Resch's Guide to Intermittent Fasting

While intermittent fasting seems like the newest diet fad, it's actually just a new name for something humans have been doing since the beginning of our species. The term "intermittent fasting" (IF) just means that there is a period of time during the day when you eat and a period of time when you don't eat.

### Most people are already doing this to some degree by not eating during sleep.

If you eat dinner at 8pm then don't eat again until the next morning at 8am, you had a fasting period of 12 hours and a feeding period of 12 hours. In the time of our Paleolithic ancestors up until the last few centuries, the fasting window was often longer than 12 hours because grocery stores weren't just down the street. Sometimes food was scarce and going out to hunt or forage was required to find more food. While glucose (carbohydrate) is the energy source our bodies use first, **our species would have become extinct a long time ago if backup systems weren't in place** and like most systems in the body, energy storage and expenditure are hormonally regulated.

Insulin is a hormone secreted by the pancreas in response to eating. **Carbohydrates cause the most insulin to be released compared to protein and fat**, but all food causes some secretion of the hormone. Insulin allows cells throughout the body to take in glucose (carbohydrate) for immediate energy needs and tells the liver and muscles to store glucose as glycogen for future needs. If more calories are still being digested after the glycogen stores are full then insulin instructs the liver to convert the extra glucose into triglycerides to be shipped out to the rest of the body to be stored as fat.

### When insulin levels are elevated, the body is in storage mode.

During periods of fasting, insulin levels drop and another hormone called glucagon is released instructing the body to mobilize stored glycogen and fat to be burned as energy. Ideally, there is a healthy balance between insulin secretion (the fed state) and glucagon secretion (the fasted state), however **many people don't live in an ideal state and have chronically elevated insulin**.

When the "fed state" persists for too long, insulin levels are never allowed to come down and the body stays in storage mode, never burning any stored fat. Processed carbs are the biggest culprit as the cause of chronically elevated insulin levels. Cutting out those foods certainly helps bring down insulin, but because all foods cause insulin release to some degree, levels can be brought down best by taking a break from eating altogether, which we call an intermittent fast.

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Another hormonal benefit of IF is a boost in growth hormone (GH). We know that a fast will raise GH levels in humans and in animal models the adipocytes (fat cells) are especially sensitive to the GH surge which results in accelerated fat burning.

## Will I feel bad when I'm fasting?

First of all, to start with **you should only fast for about 16 hours**, which amounts to skipping breakfast because you've already gotten credit for all of the hours since you last ate the night before. The first couple times you try it, you may be hungry but that starts to go away and a lot of people begin to feel better by waiting to eat.

The "brain fog" or crankiness from being hungry also gets better and many people find that they can avoid those feelings altogether by teaching their bodies how to use fat for energy through intermittent fasting. Hormones help out here as well and **after 20-24 hours without food, there is actually a release of adrenaline** which sharpens mental clarity and boosts energy. From an evolutionary viewpoint, this makes sense as it was the body's way to aid in the collection of more food.

## Will IF help me lose weight?

**Maybe.** Controlled human studies aren't available yet to adequately answer this question. Observational studies have been done where IF was compared with other diets, but the two groups did not eat the same foods or the same quantities so was the weight loss a result of when they were eating (IF) or what they were eating and how much?

We do know that improving insulin sensitivity will help weight loss and IF can be one tool used to achieve that goal.

## Are there other benefits to IF than potential weight loss?

Animal studies have shown a multitude of benefits with IF, however rats aren't humans, so we cannot assume that humans will have the same positive effects. With that said, the results of animal data have shown consistently positive results including:

- Improved insulin sensitivity
- Increased growth hormone release
- Reduced oxidative stress and inflammation

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- Improved appetite control
- Increased fat burning
- Improvement in cardiovascular health

## Should I try Intermittent Fasting?

**You should speak with your doctor before starting any new diet program,** but if you get the green light then give it a try and see how your body feels. Start with a fasting window of 16 hours, which can be accomplished by eating dinner at 8pm and then waiting to eat until noon the next day. If you feel good after trying 16 hours a few times (which doesn't have to be on consecutive days) then you can try a 24 hour fast no more than once a week. This is best accomplished by eating dinner at night and then waiting to eat again until dinner the next night. During any fast, it is important to continue to drink water.

Black coffee, tea, and sparkling water without artificial sweeteners are also allowed. **Take it slow and listen to your body while experimenting with IF.** You can and should continue to exercise when fasting, but don't go crazy. Our ancestors were active during periods of fasting, but they weren't trying to win a triathlon or PR their Murph time. And finally, if you are diabetic and on insulin or sulfonylureas then **you should only fast under the close supervision of your doctor.**