

Pros and Cons of Intermittent Fasting

Intermittent fasting is romanticized in the nutrition blogosphere and sometimes viewed as “the” way to improve health and body composition.

People also become fascinated by the practice—perhaps because of the mental discipline it requires or perhaps because it is at odds with our culture of food abundance. The intent of this brief is to explain why someone might employ or avoid intermittent fasting.

Intermittent fasting has come to mean many different things to many people. Here is a general summary:

- Fasting is simply a period without consuming calories. Note that it is intermittent fasting; the name implies infrequency.
- Not eating for an extended period is a stress. Fasting is a stress, and its severity is dictated by the length of the fast. Stress itself is not inherently good or bad.
- Intermittent fasting does not include a prescription of specific foods to eat when not fasting, nor does it control the number of calories consumed when not fasting. The term “time-restricted feeding” is sometimes used to specify fasting without a caloric deficit.

Many different proposed protocols can be used with intermittent fasting; it is not a one-size-fits-all method. As one example, a 15-hour overnight fast means finishing dinner at 8 p.m. and abstaining from any calories until 11 a.m. the next day (non-caloric liquids are permitted, except when containing non-caloric sweeteners). This is essentially the practice I followed a few times a week for more than two years. The actual fast length and frequency of fasts can be modulated (knowing that more of either variable is a greater stress).

A few of the potential benefits include improved:

- Body composition (metabolic flexibility).
- Health (hormonal control).
- Psychological effects.

As with most aspects of nutrition, every benefit can become a detriment depending on each person’s approach.



Photo: Dave Re/CrossFit Journal

Body Composition (Metabolic Flexibility)

Benefits

- Intermittent fasting might improve body composition. Because the practice compresses the “feed window” on a selected day, it is likely people will eat less than their usual volume unless they are tracking their intake. It is harder to eat your daily caloric load in a shorter period, so intermittent fasting might indirectly reduce total consumption, resulting in weight loss. This was my general experience; I essentially dropped a meal sporadically and did not make up the calories elsewhere. I leaned out slightly in the beginning. Once I became used to the shorter feed window, my calories increased and body composition remained unchanged.
- Intermittent fasting also generally promotes more fat burning, even in the presence of the same daily caloric load. At rest, the body preferentially uses fat for energy, especially in the periods not directly after a meal. As the length of these periods increases (to a degree), the body becomes better able to access and use stored fat (instead of carbohydrate) for energy. Some promote intermittent fasting as a way become “metabolically flexible”—able to use carbohydrate or fat as needed. Metabolic flexibility is affected by one’s macronutrient intake, but for CrossFit athletes metabolic flexibility allows for greater reliance on carbohydrates near workout times (due to the necessity for high intensity) and greater reliance on fat otherwise (i.e., “fat-adapted”).

Disadvantages

- Intermittent fasting does not improve body composition when the body is starving. For someone who is under-eating—intentionally or not—the body shifts more to muscle catabolism versus fat burning. Chronic stress, such as starving, increases cortisol. Chronically elevated cortisol can elevate blood sugar and in turn elevate insulin, which ultimately shifts the person away from fat oxidation.

Health (Hormonal Control)

Benefits

- Intermittent fasting brings some potential health benefits via better hormonal control—particularly insulin sensitivity. Suppose a regular coffee drinker consumes four cups of coffee a day. It is unlikely he or she notices a significant difference from caffeine with the last two cups. However, by removing caffeine from the diet for a month, he or she will likely notice the effects of smaller doses. By exposing oneself to periods of low insulin during a fast, the body becomes better at detecting small increases. This is relevant for health because insulin resistance is present with many chronic diseases (e.g., heart disease, diabetes). Once people develop insulin resistance, they are metabolically inflexible; i.e., they cannot access existing fat stores and become increasing poor at carbohydrate metabolism (i.e., dysglycemia).

Disadvantages

- Depending on a person’s current hormonal status, intermittent fasting might add too much stress. Someone who already has high cortisol does not need to be fasting; it will only make things worse. Signs of high cortisol include energy levels opposite to a natural circadian rhythm, such as excessive grogginess in the morning and excessive energy at night.
- When I first experimented with intermittent fasting in 2010, the blogosphere anecdotally reported that women had less success with it. Thanks to [Stacy Sims](#), a pioneer in female-specific physiology research, I now understand the monthly cycle of hormonal fluctuations makes fasting less advantageous for women particularly during their high-hormone luteal phase. The net effects of high estrogen and

progesterone are protein catabolism and glycogen sparing, which is not good for the CrossFit athlete who wants to gain strength and work out at high intensity. This is exacerbated by high cortisol (stress).

Psychological Effects

Benefits

- As someone who came from typical mainstream fitness before CrossFit, I found intermittent fasting brought freedom from food. For years I maintained a moderately obsessive meal schedule, eating once every three or four hours. Missing meals was freeing, and the body is not so sensitive that skipping a meal occasionally will result in disastrous metabolic shifts.

Disadvantages

- For those who have struggled with diagnosed eating disorders, or even undiagnosed but disordered eating patterns, intermittent fasting is not recommended. It promotes restricting eating that can lead to increased obsession about food “rules.” For someone who has these tendencies, intermittent fasting will likely not create healthy habits.

In Application

Nutrition science can be difficult to apply universally because it is multi-factorial; each protocol depends on a host of factors, such as genetics, current health status and goals. The same is true for intermittent fasting. Decide what your goals are (health versus performance versus aesthetic) and make an honest assessment of other diet and lifestyle factors. Intermittent fasting is a minor dietary consideration compared to establishing consistency in the quality and quantity of food you eat. If you decide to experiment with intermittent fasting, start small and observe the effects. The overnight fast is particularly easy to implement because it is easily coordinated with our natural circadian rhythm. As length and frequency of fasts increase stress, intermittent fasting will be harder to manage and more likely detrimental to one’s health and performance goals. ■

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