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 size 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 years increased and body composition remained unchanged.

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).

Nutrition science can be difficult to apply universally because it is multi-fac torial; 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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