

Intermittent Fasting: A Potential Weight-Loss and Wellness Strategy

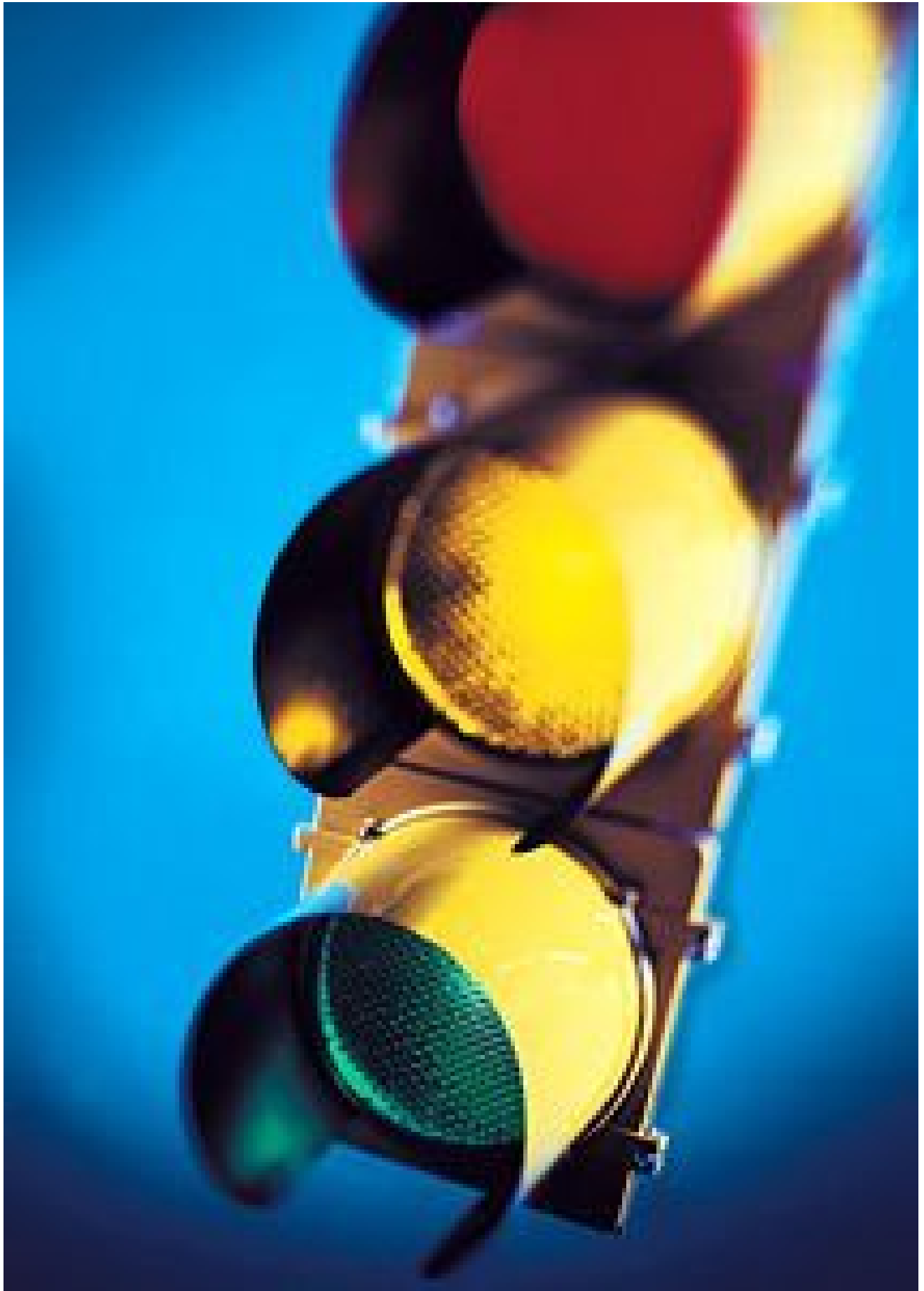
Jasper Sidhu, BSc, DC

Every day, there seems to be a new weight-loss diet in the news. One of the things I've found is that most good programs work, as long as you stick to the program. In my experience, I've realized that changing a patient's mindset to their weight-loss approach and understanding how we can fit a "program" into their lifestyle and belief system increases the changes of success.

Recently, I've seen a lot of interest in the concept of "intermittent fasting." Although this has been around for awhile, it's only recently gathering interest as a strategy to facilitate [weight loss](#) and/or improve overall health and well-being. That being said, you may have patients asking you about this in the near future, if not already. Let's discuss the benefits of intermittent fasting and explore the best situations in which this strategy can be an effective option for your patients.

What Is Intermittent Fasting?

Intermittent fasting is the process whereby one avoids food intake for a specific period of time. Two terms you need to know for this discussion are *fasting state* and *feeding state*. Fasting state refers to the length of time one avoids eating. Keep in mind that during the fasting state, fluids are still essential. Drinking water, tea or even coffee is acceptable. The feeding state refers to the length of time one can eat. There's no strict timing of eating during this state. You can eat one meal, two meals, three meals or more during this state. The point is to eat naturally, rather than trying to fit in a whole day's worth at once.



Let's take a look at some of the different fasting programs out there; then we'll get into the benefits of intermittent fasting while shattering some of the myths surrounding the concept of fasting.

- *Alternate-day fasting*: This involves a 36-hour fast with a 12-hour feeding state. Basically, the patient fasts every other day. If they last ate at 8 p.m. on Monday, they wouldn't eat until 8 a.m. on Wednesday, followed by a feeding state until 8 p.m. Wednesday, and then fasting again for 36 hours.
- *Eat-stop-eat*: This strategy involves a 24-hour fast, one to two times per week.
- *Lean gains*: A 16-hour fast followed by an eight-hour window of feeding. If the patient ate dinner at 8 p.m., they wouldn't eat again until noon the next day.
- *Warrior diet*: A 20-hour fast followed by a four-hour window of food intake.

One last fasting method is what we call *random*. Some proponents of this model believe mixing up fasting times is similar to what our ancestors did and keeps the body guessing. Your body doesn't adapt as quickly when it's kept on its toes.

The 16-hour fast / eight-hour feed (*lean gains*) seems to be the most doable for the majority of people. Fasting has to become part of someone's lifestyle. The more difficult it becomes, the greater the chance your patient will quit, just like any other diet strategy.

The Benefits of Fasting

Although countless experts advocate the many benefits of intermittent fasting, understand that the research in humans is in its infancy. Many studies have been done on mice and rats, showing improved insulin sensitivity,¹ increased resistance to neuronal damage,¹ reduced cognitive impairment,² cardiovascular protection,³ increased lifespan,⁴ and prevention of progressive deterioration of [glucose tolerance](#).⁵

Studies have also compared the results from intermittent fasting with caloric-restriction studies. Both groups show extended lifespan and increase resistance to age-related diseases in rodents and monkeys, and improvement of health in overweight humans.⁶

Severe calorie restriction has been criticized for providing inadequate amount of nutrition, which may offset long-term benefits. With intermittent fasting, a person can eat a sufficient amount of calories. The only thing that changes is the length of fasting. Proponents in the fitness field support this aspect of intermittent fasting, considering an individual will be able to get the right amounts of nutrients for preventing muscle loss and improving athletic function.

With respect to weight loss, some human studies have compared intermittent calorie restriction versus continuous restriction. One study divided weight-loss subjects into two groups; one group had their food intake restricted by 25 percent daily, while the other group had a 75 percent restriction two days per week and normal consumption the other five days of the week. Both groups achieved comparable weight loss and improvements in risk markers for [cancer](#), diabetes and cardiovascular disease.⁷

A Few Caveats

Studies like these only substantiate the benefits fasting can achieve. However, fasting isn't for everyone. If your patient has a busy lifestyle and tends to skip meals, introducing a regimented fasting

strategy may be of some benefit. If your patient is an athlete or engages in regular physical activity, limited fasting time is highly recommended. Also keep in mind that with any weight-loss / training program, exercise is critical to success. Some patients may take intermittent fasting as an excuse to stop exercising, which can be detrimental in terms of muscle loss.

Shattering Myths

Although there appear to be clear benefits to fasting, it's easy to doubt the principles behind fasting and question its effectiveness, safety and credibility. Some point to the drop in metabolism from a decrease in eating frequency. However, eating less frequently doesn't lower your metabolism. A review study found no correlation with meal frequency and metabolism.⁸ However, some studies have shown that weight-loss maintainers and normal-weight individuals eat more frequently than overweight individuals.⁹

In general, I recommend patients consume more meals throughout the day, but some individuals respond more favorably to intermittent fasting due to their busy lifestyle or their ability to feel better without breakfast. The main point is that one diet is not the right fit for everyone. Individualizing the right approach to the right patient is the key.

Some point to the potential reduction of muscle mass with intermittent fasting. However, this also appears to be limited. One study looked at the effects of exercise on growth of rats during intermittent fasting. Those that fasted and exercised maintained or increased their lean-muscle mass, suggesting that exercise is beneficial when feed restriction is episodic.¹⁰ In the real world, I've seen countless dieters and active people maintain lean muscle mass as they progress through their intermittent fasting program. [Dr. John Berardi](#), a big proponent of regular meals, decided to experiment with intermittent fasting over six months. His report is an excellent example of the effects of intermittent fasting on lean muscle mass.¹¹

Awareness of and further research on intermittent fasting will continue to increase. If your practice involves weight loss, nutritional counseling or wellness care, intermittent fasting may be the right option for some of your patients. Don't consider it a time-limited diet so much as an alternative to conventional eating. For some, it may gradually become a lifestyle.

Remember, as with all clinical practice, a single strategy does not fit every patient when it comes to achieving safe, long-term weight loss. I have patients who respond well to carbohydrates and always need some form of glucose in their body. They won't do well with intermittent fasting. Others burn ketones extremely well and hence skip breakfast, and yet still do really well with their health and weight-loss goals. I got a couple of physicians on this program - after they nagged me about the research and myths they thought were facts. They have been blown away by its effectiveness.

That's the most important take-home point: Understanding the benefits of each option is essential to provide the right information to your patient. When done right, intermittent fasting may be the strategy some of your patients need to reach their ideal weight and achieve lasting health and wellness.

References

1. Anson RM, et al. Intermittent fasting dissociates beneficial effects of dietary restriction on

- glucose metabolism and neuronal resistance to injury from calorie intake. *Proc Natl Acad Sci*, 2003;100(10):6216-6220.
2. Halagappa VK, et al. Intermittent fasting and caloric restriction ameliorate age-related behavioral deficits in the triple-transgenic mouse model of Alzheimer's disease. *Neurobiol Dis*, 2007;26(1):212-220.
 3. Mattson MP, Wan R. Beneficial effects of intermittent fasting and caloric restriction on the cardiovascular and cerebrovascular systems. *J Nutr Biochem*, 2005;16(3):129-137.
 4. Sogawa H, Kubo C. Influence of short-term repeated fasting on the longevity of female (NZB x NZW)F1 mice. *Mech Ageing Dev*, 2000;115(1-2):61-71.
 5. Belkacemi L, et al. Intermittent fasting modulation of the diabetic syndrome in sand rats. In vivo investigations. *Int J Mol Med*, 2010; 26(5):759-65.
 6. Mattson MP, et al. Beneficial effects of intermittent fasting and caloric restriction on the cardiovascular and cerebrovascular systems. *J Nutr Biochem*, 2005;16(3):129-37.
 7. Harvie MN, et al. The effects of intermittent or continuous energy restriction on weight loss and metabolic disease risk markers: a randomized trial in young overweight women. *Int J Obes*, 2011;35(5):714-27.
 8. Bellisle F, et al. Meal frequency and energy balance. *Br J Nutr*, 1997;77(Suppl 1):S57-70.
 9. Bachman JL, et al. Eating frequency is higher in weight loss maintainers and normal-weight individuals than in overweight individuals. *J Am Diet Assoc*, 2011;111(11):1730-4.
 10. Sakamoto K, et al. Beneficial effects of exercise on growth of rats during intermittent fasting. *J Nutr*, 1987 Feb;117(2):390-5.
 11. Berardi JM, Scott-Dixon K, Green N. "[Experiments With Intermittent Fasting](#)."

JULY 2012