

SMARTDRUGSMARTS

PRIMER : INTERMITTENT FASTING

Intermittent Fasting (“IF”) is hitting the mainstream. Initially, IF gained popularity among the fitness/bodybuilding crowd for its fat-reducing and “cutting” effects.

However, if you’re reading this¹, you know research shows the health benefits of IF extend far beyond prepping for summer swimsuit season. IF protocols have been correlated with improved cardiovascular health, reduced cancer risk, gene repair, extra cognitive clarity and increased longevity.

Whatever your reasons for curiosity about IF, you may be wondering exactly how to get these “seem too good to be true” (boo!) but also “backed by science” (yay!) results.

(The following assumes that you’re not a lab mouse. Individual results may vary.)

HOW DOES ONE PRACTICE “IF” IN THE REAL WORLD?

First, there is no one *be-all-end-all* Intermittent Fasting prescription. IF is actually a general, overarching term used to describe a variety of different fasting schedules. In fact, an entire mini-industry seems to have blossomed around the term.

That said, here’s the good news: The practical implementation of IF is not exactly rocket science. It simply involves of period of food abstinence². There are several different protocols, but the main distinguishing features are simply the lengths of the eating and no-eating parts of the cycle.

¹ We’re guessing that you’ve already heard Smart Drug Smarts episode #120, with Dr. Mark Mattson. If not, check out <http://SmartDrugSmarts.com/120>.

² No snickering! *Abstinence* simply means “not doing something” – in this case, eating. Nobody thinks you’re playing hanky-panky with your food.

INTERMITTENT FASTING PROTOCOLS

The 24-Hour Fast³

This is a fast that (as the name implies) lasts a solid day, and might be done 1x or even 2x per week for the “hardcore,” less frequently for others. Some people engage in this extended fast less frequently – one or two days a month -- as a sort of systemic “reboot.”

How do you do it? Simple. Just pick a time to finish your last meal and then stop eating until the same time the next day. For example, eat dinner on Tuesday at 6pm and then break the fast on Wednesday at 6pm with dinner.

That said, if you’re doing 24 hours, you might as well just make it a 32-hour fast and go one full calendar-day without eating. In the above example, stop eating after dinner on Tuesday, go food-free on Wednesday, and break the fast with breakfast (“break-fast,” get it?) on Thursday morning. If you eat breakfast at 8am, you’ve extended your fast from 24 to 38 hours without really expending any additional willpower. (Most of the extra hours, you were asleep!)

Alternate-Day Fasting

If you like the clarity of the “this calendar day off from eating” method mentioned above, the next level of seriousness – not for the faint of heart – is “Alternate-Day Fasting,” in which every other day is a feast/famine day. On eating days, a person eats until he/she is full, and on the fasting days – you guessed it – no food. This is a strategy that many people have used as a Caloric Restriction strategy, because most people find that the amount they eat on “feast days” does not usually double a “normal day” amount, and so overall weekly calorie intake is reduced.

A variation of this fasting schedule allows one small meal (about 500 calories, depending upon the person’s body weight) during the fasting day. The “5:2 Diet” mentioned by Dr. Mattson is close to this approach.

³ **Obligatory but Important:** We are not medical professionals, and this document is offered only as educational material and a jumping-off point for further research and/or consultation. We suggest that you consult with your healthcare professional before making any major physiological changes. Not eating for extended periods certainly counts – although for healthy people, fasting for 14-18 hours should not present a significant challenge.

Everyday IF (aka “Intermittent Eating”)

Everyday IF sounds intimidating, but it is one of the more popular protocols because it takes advantage of your time asleep. With this protocol, you simply restrict your eating to a limited number of hours. In practice, this normally means skipping breakfast and delaying lunch.

For example, your eating window might be from noon to 8pm -- which amounts to a 16-hour fast.

(Jesse prefers pushing back his window even further, from 4pm-11pm so dessert remains a possibility.)

Women who practice Everyday IF seem to fare better on a shorter fasting window -- typically only about 14 hours (i.e. a 10-hour eating window). Men often do fine with an eating window from 6-8 hours, and some even less.

Note: *There is an ongoing debate as to whether IF should be practiced by women. Some research indicates that IF, over the long term, can dis-regulate women’s reproductive systems. As with most things controversial, one can find support both in favor of and against IF. The short-term best answer is probably...*

“It depends on how your body responds.” Women who want to try IF are advised to pay attention to how they feel, watching for signs of hypothyroidism and dis-regulated hormones (amenorrhea). One thing is certain: If you are pregnant or breastfeeding -- no debate here -- then IF is not for you.

“What about things that kinda-sorta seem like food, but aren’t really?”

If you’re doing a fast, *you’re going to be tempted to cheat*. That is par for the course.

But the whole point of fasting is to get the benefits, and we don’t have enough scientific-study data yet to know all the *whys* of where the benefits are coming from, physiologically. It may be that sticking to zero-calorie “foods” will yield 90% of the benefits but allow you to sneak in some taste stimulation. Or it may be that triggering the taste buds might be an epigenetic trigger that fools your body into thinking you’ve got incoming “food” even in the absence of calories. We just don’t know yet.

Most fasters do allow themselves coffee, teas and other non-caloric beverages during the fasting period (obviously no milk/sugar/etc.). In fact, it is generally acknowledged that drinking a beverage with fewer than 50 calories will keep you in the fasting state. But don’t push it. 😊

Jesse’s Take: On a shorter fast (up to ~36 hours) I’ll do tea, black coffee, and supplements (which have small but basically inconsequential amounts of calories). On a longer fast where the fasting finish line is a long way off, I prefer water only. Why? Psychologically, even something like tea can be a “tease” and remind me of all the *other things I wish I was tasting*. Better just to leave my taste buds un-stimulated and focus on other things.

LINGERING QUESTIONS

“If I’m fasting, will I have the energy to exercise?”

Yes! According to Dr. Mattson, our ancestors regularly exercised in a fasted state. Think of the physical exertion required to track a deer or other wild game, slay it, gut it, carry it back to camp, and then to prepare and eat it? Granted, after years of training our bodies to exercise in a fed state, the switch to fasted exercise might be an adjustment. But with time your body will learn to utilize stored glycogen and fats as fuel, rather than the circulating blood glucose that many think they need to fuel their workouts.

Working out in a fasted state, your body will access the stored fuel (glycogen) in the liver and muscles before dipping even deeper into your energy reserves – going after adipose tissue (fat!) or employing a process called gluconeogenesis to create additional fuel from proteins and amino acids.

“How is the transition period *into* an IF lifestyle?”

Many people find that it takes two or three weeks for their bodies to become accustomed to a regular fasting schedule. (This can be even longer if you’re fasting infrequently.) This should come as no surprise; the body is making epigenetic changes, and building the inter- and intracellular tools it needs to burn fuel differently. In fact, to sometimes burn different fuels altogether.

Some people may find their tempers flare more quickly during this acclimation time, and/or their workouts are not quite as powerful. However, after the transition period, emotions and energy levels usually rebound. Many people report they lose their cravings for sweet and carb-laden foods. But again, individual results may vary. :)

THE LAST WORD

All of the IF protocols have been found to provide benefits. To find what’s right for you (if any), it’s probably best to experiment. Consider your sex, lifestyle, daily and weekly schedule, and your eating and exercise style.

If you do decide to take a seat at the IF table, let us know how it goes. We’d love to hear which method(s) you choose and how it works out for you. Less brain fog? Fewer cravings? Better energy levels?

FURTHER READING

- <http://www.marksdailyapple.com/fasting-brain-function/#axzz43DMQjSr6>
- <http://www.precisionnutrition.com/intermittent-fasting/appendix-a>
- <http://fitness.mercola.com/sites/fitness/archive/2013/12/20/intermittent-fasting-weight-loss.aspx>
- <http://articles.mercola.com/sites/articles/archive/2014/06/08/alternate-day-fasting.aspx>
- <http://www.precisionnutrition.com/intermittent-fasting-women>
- <http://biology.stackexchange.com/questions/13886/under-what-conditions-does-the-body-burn-fats-proteins-and-carbohydrates>
- <http://www.muscleforlife.com/the-definitive-guide-to-intermittent-fasting/>