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My Experiments With Intermittent Fasting

Nutrition expert Dr. John Berardi serves up an introductory summary of his research into extended fasting.

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Nutrition is a really hot topic in the CrossFit community, but with the debate centering on whether to eat Paleo or Zone, I'm afraid another eating style is completely flying under the radar.

Careful, folks. You don't want to miss this one.

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It's called intermittent fasting (IF), and while it's certainly not for everyone, there are athletes in the CF community who would absolutely benefit from playing around with it.

Now, before you pick up your Zone or Paleo toys and go home, here's the interesting thing: you can still Zone or Paleo while experimenting with IF.

I'll tell you how.

About Intermittent Fasting

Maybe you don't know what the heck I'm talking about when I refer to IF, so let's start with the basics.

"Intermittent fasting" is the name some nutrition experts give to the practice of occasionally going for extended periods without eating. Maybe you go 12 hours. Maybe it's 16 hours. Maybe it's 24 hours.

Pretty simple, right? Sometimes you eat. And sometimes you don't.

Here's the catch: no matter what eating style you currently follow, I promise you're already doing some form of intermittent fasting. Think about it this way: let's say you eat dinner by 8 p.m. and breakfast at 8 a.m. the next day. In that case, you're fasting for 12 hours every day. (Some people refer to this as a 12/12 eating schedule because it's 12 hours of fasting and 12 hours of eating).

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Every day. And you're
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So if your knee-jerk reaction is to say "no way!" to intermittent fasting, remember you're already doing intermittent fasting. Every day. And you're probably already enjoying some of its benefits.

However, some great new research shows that a ton of really powerful benefits might come when we extend the fast even longer than the typical 12 hours.

The Benefits of Intermittent Fasting

In animal models, where most of the research has been done, the proposed benefits of extending our normal fast—from time to time—reads like a laundry list of look-better, feel-better, live-longer physiological changes. These changes include:

Reduced:

- Blood lipids (including decreased triglycerides and LDL cholesterol).
- Blood pressure (perhaps through changes in sympathetic/parasympathetic activity).
- Markers of inflammation (including CRP, IL-6, TNF, BDNF and more).
- Oxidative stress (using markers of protein, lipid and DNA damage).
- Risk of cancer (through a host of proposed mechanisms; we'll save them for another review).

Increased:

- Cellular turnover and repair (called "autophagocytosis").
- Fat burning (increase in fatty acid oxidation later in the fast).
- Growth-hormone release later in the fast (hormonally mediated).
- Metabolic rate later in the fast (stimulated by epinephrine and norepinephrine release).

Improved:

- Appetite control (perhaps through changes in PPY and ghrelin).
- Blood-sugar control (by lowering blood glucose and increasing insulin sensitivity).
- Cardiovascular function (by offering protection against ischemic injury to the heart).
- Effectiveness of chemotherapy (by allowing for higher doses more frequently).
- Neurogenesis and neuronal plasticity (by offering protection against neurotoxins).



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Intermittent fasting can be done every other day, once per week or once per month, depending your personality and lifestyle.

But let's not just geek out here. Although I'm a scientist (and I love research), I'm also a competitive masters-level sprinter (and I love results). That's why, with the cool research, and with the online IF communities singing its praises, I decided to take matters into my own hands.

Over the last eight months, I turned myself into a human guinea pig and tried out nearly a dozen different intermittent-fasting protocols. I've kept meticulous notes on everything from scale weight, body-fat percentage and blood/hormonal markers to lifestyle markers like energy levels, cognitive thought and a bunch of pain-in-the-ass factors.

(If you're interested in reading more, I've published all my findings in a free e-book called [Experiments With Intermittent Fasting](#).

How To Do Intermittent Fasting

IF research is still in its infancy, especially in humans. And right now, I'd say we're a good five-to-seven years from knowing what exactly IF does in humans (and why), and a good 10-to-12 years from knowing which IF protocols are "best." As a result, there are a ton of different ideas on how to best implement IF.

- The most extreme version is where you simply eat every other day, fasting on the days in between. (This one's probably not for people who exercise regularly and want to be strong, muscular and lean.)
- The most flexible version is to simply add a single day of fasting as little as once per month or as much as once per week. (This one can be very physique and performance friendly.)
- Another interesting version is to extend the daily fast from the typical 12 hours to a longer 16 or 20 hours. (This can also be very physique and performance friendly; however, you have to do it right. If you don't, trouble awaits.)

In my experiments, I tried (and report on) these different forms of IF and several more.

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The Results of My Experiments

Put simply, some of the experiments were a huge success and led to improvements in my body composition, my health and my performance. Others were disastrous, causing me to drop muscle mass and develop food obsessions.

So, how do I define success? Well, in the last year I've been training with a professional track-and-field coach. And when running competitively, every pound has got to earn its rent. So I wanted to drop fat and get extremely lean while staying strong and powerful. Those were some of my success metrics.



Intermittent fasting helped Berardi go from 10 percent body fat (top) to 4 percent body fat (bottom).

In the end, I was able to accomplish most of those goals. I lost about 20 lb. of fat while preserving most of my lean mass, strength and power. According to my Intelametrix device (a valid ultrasound-based form of body-composition testing), I went from a fairly lean 10 percent body fat to a very lean 4 percent.

In the case of another one of my clients, a guy with some different goals, he gained 20 lb. of quality weight in the last few months while also experimenting with intermittent fasting.

Not too bad.

Grazing vs. Fasting

In the nutrition world, it's pretty commonly accepted that healthy eating means having small meals every few hours, a concept some people call "grazing."

- Grazing is supposed to speed up our metabolism (new research shows that it actually doesn't).
- Grazing is supposed to better control appetite (it does for some and not for others).
- Grazing is supposed to better control blood sugar (it does for some and not for others).

Now, I'll be the first guy to admit that I've been a strong proponent for more frequent eating for the last 10 years. This concept has not only served *me* well, but it's also helped over 100,000 of my own clients and readers (and millions of people worldwide) get into better shape. So I was a little skeptical of this IF stuff at first. However, the results of my experiments were clear, and they allowed me to make room for another idea: the idea that we don't have to graze. It's not a must. Rather, it's a choice.

In other words, as long as we eat the right foods in the right amounts, meal frequency is a matter of personal preference. You can eat lots of small meals. You can eat a few big meals. You can even go an entire day without eating once in a while.

It's all about what works best for your schedule, your appetite and how you prefer to spend your time.

What to Eat When Fasting Intermittently

So far we've only talked about *when* to eat and *what* not to eat while experimenting with IF.

Let's now talk about *what* you should be eating. And that's pretty simple. The rules of good nutrition haven't changed. So, when practicing IF, you should still be:

- Paying attention to what you're eating.
- Eating more slowly.
- Eating good quality, minimally processed food.
- Eating reasonable portions.
- Eating lots of veggies and some fruit.
- Eating enough protein to support your training.



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If you have a good history of monitoring your meal times and food intake, intermittent fasting might work well for you.



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Intermittent fasting may not be right for you if you are a competitive athlete who trains once or twice a day, or if you are married or have children.

It also wouldn't hurt to learn how to prepare healthy food in the first place. On top of that, if you eat Paleo, you can do that while practicing IF. If you eat Zone, you can do that. If you cycle your carbs and calories (which I think works incredibly for athletes—more in an upcoming article), you can do that. If you eat a vegan diet, you can do that.

As long as we eat the right foods in the right amounts, meal frequency is a matter of personal preference.

Whatever you've found to work best for you, through self-experimentation, is what you should stick with. And if you haven't figured out what works for you yet, perhaps you should consider working with a coach and doing some guided experimentation.

IF Isn't for Everyone

Intermittent fasting is serious stuff and therefore not for everyone. For the more regular or more extreme forms of fasting, I've found they're more successful when:

- You have a history of monitoring calorie and food intake (i.e., you've "dieted" before).
- You're already an experienced exerciser.
- You have an active-recovery program.
- You're single or you don't have children.
- Your partner (if you have one) is extremely supportive.
- Your job allows you to have periods of low performance while you adapt to a new plan.

On the other hand, these programs seem to be much more challenging for those who:

- Are new to diet and exercise.
- Are married and have children.
- Have performance-oriented or client-facing jobs.
- Compete in sport/athletics and train daily or multiple times per day.

Also, stress is stress. If you've got a new job, are moving or have any other life changes coming up, it's probably not a great time to try something like intermittent fasting.

Finally, for pregnant women, people who have suffered from disordered eating, and people simply looking to be healthy and fit with no particular desire to be extremely lean, there's absolutely no reason to try the more extreme IF varieties.

Summary

Going too deep into my experiments and covering the details of each form of IF are beyond the scope of this article. This is meant to be an introduction, and you can read all the details in [Experiments With Intermittent Fasting](#).

For now, I'd like to wrap up by saying this: intermittent fasting can be helpful for in-shape people who want to really get lean without following conventional bodybuilding diets, or for anyone who needs to learn the difference between body hunger and mental hunger.

Also, it's a strategy I'll continue to use periodically, but it's not the end-all, be-all of nutrition or fitness. People have been getting in awesome shape—and staying in awesome shape—for decades without the use of intermittent fasting.

If you meet the criteria for trying IF and decide you'd like to give it a try (or you'd simply like to learn more about it), start by reading my e-book. In it, you'll find lots of options, details, tips and tricks that you simply won't find anywhere else. Then, once you're prepared and you know what you're getting into, feel free to experiment away.



Courtesy of Dr. John Berardi

About the Author

Dr. John Berardi is the chief science officer at Precision Nutrition.com, a research-driven nutrition-coaching company that teaches clients what to eat, when to eat and how much to eat for high performance in the game of life. Dr. Berardi boasts an impressive list of academic credentials, is a certified strength-and-conditioning coach through the NSCA, holds a CrossFit Level 1 certificate, and has worked with a long list of Olympians and professional athletes.