KRESSER INSTITUTE
FOR FUNCTIONAL AND EVOLUTIONARY MEDICINE

Intermittent Fasting – Part 1

Hey, everybody, in this presentation we're going to talk about the use of intermittent fasting for your patients, including who is and who is not a good candidate. First, what is intermittent fasting? It is alternating periods of fasting and non-fasting, and there are a lot of different ways to do it. For example, one way is alternate-day fasting, so you eat one day and then you don't eat the next day, you eat one day, you don't eat the next day. Another is compressed food intake, where you restrict intake of food to a particular timeframe, let's say eight hours. So the patient might only eat from 12 p.m. to 8 p.m. And this is, I think, the best and most convenient way for most people to do intermittent fasting, so I would recommend the 16-hour fast with an eight-hour eating window each day, which means they would stop eating around 8 p.m. and then start eating at 12 p.m. noon the next day.

Intermittent fasting is a hormetic stressor, so it's a positive stressor, which is something that causes … hormesis is something that contributes to positive adaptation, so it's a beneficial stressor that leads to a positive adaptation. It promotes a process called autophagy, which is a cellular repair process. Studies show that intermittent fasting is an effective weight loss tool. It's been shown to improve insulin sensitivity, reduce inflammation and oxidative stress, and promote healthy brain function.

Before we jump into more specifics about intermittent fasting, let's talk a little bit about who is and isn't a good candidate. Patients who are fighting chronic infections, have a weak immune system, or are trying to lose weight, those who have type 2 diabetes or other metabolic problems, or neurological issues, or people who are just trying to optimize longevity are all good candidates for intermittent fasting.

In the slides that follow, I'm going to talk about some of the situations where you might want to be cautious with intermittent fasting or avoid it. It does have the potential to make some people worse, depending on their conditions. If a patient has more than one health condition, which most of your patients will, and has one or two of the conditions that would benefit from intermittent fasting but has one or more of the conditions where intermittent fasting might be contraindicated, then you might want to just avoid that as an intervention until that particular condition which contraindicated intermittent fasting improves.

So the first would be pregnancy. I don't recommend intermittent fasting during pregnancy. It may be okay to occasionally fast during pregnancy, but the key focus, obviously, is to nourish the growing baby, and that takes a lot of resources, and regular fasting is just really not a great idea. When you think about it from an evolutionary perspective, there's actually evidence that suggests that food scarcity during pregnancy can cause epigenetic changes in the baby that will lead to metabolic problems later in life. The baby's metabolic system is taught to expect food scarcity, so it stores calories more efficiently than it would otherwise and may kind of promote behaviors that lead to caloric accumulation, and so they may be more likely to be overweight or develop

metabolic problems later in life. So I don't recommend regular fasting during pregnancy, and if you are a clinician but you're not a medical doctor, and you're working with a patient, I would certainly recommend that you tell them to talk to their doctor if they'd like to pursue fasting in any capacity during pregnancy, and I would suggest that you dissuade them from doing that, if possible.

Another condition where intermittent fasting may be contraindicated is so-called adrenal fatigue. I refer to this as HPA axis dysregulation, as you know, but a situation where the patient has a tendency toward hypoglycemia, they're really run-down, they're extremely worn out, they're not sleeping well, they're burning the candle at both ends. In this case, they might actually do better eating smaller, more frequent meals than they would doing intermittent fasting, and especially if there is coffee involved. This is a typical patient that you might see: it would be a woman, a mom who's got two or three kids, she's working, she's up late at night, she's cooking dinner for the family, and then putting the kids to bed, and then doing work or e-mails and stuff, staying up late, and then waking up early in the morning to get the kids to school and is just really run-down, cortisol dysregulation, HPA axis is just really messed up. And then she hears about Bulletproof coffee and intermittent fasting, she starts doing Bulletproof coffee in the mornings, so if she's waking up and just having a big cup of coffee with fat in it, and that's it, and not eating any solid food until noon, then at first she might actually feel a little bit better.

It's typical for that to happen, but over time, maybe a month, maybe two months, maybe three to four months, she starts feeling significantly worse, her sleep gets even worse, her energy plummets. Maybe if she had an existing thyroid condition, it gets worse and she has to up her medication, she starts to notice hypothyroid symptoms. This is a really, really common problem, and the biggest issue is that in many of these cases, the patient won't suspect that the fasting is what caused the problem because they initially felt better with it and so they don't suspect when they start to feel worse three or four months down the line. So in this situation, the fasting is yet another stressor that the body has to deal with. If they already have multiple stressors, then that positive adaptation that can occur with intermittent fasting may not happen, and it may actually take them in the wrong direction.

I mentioned hypothyroidism on the last slide. There's some evidence that fasting can be beneficial in hypothyroidism, but there's also evidence that fasting decreases the conversion of T4 to T3; there's quite a bit of evidence suggesting that that happens. And T3 is the most active form of thyroid hormone, so if you do something that consistently reduces that conversion, then you could worsen or even trigger a thyroid problem, and this fits for the most part with my clinical experience. Here's a situation, though, where you'd often get a patient that has one condition that would warrant intermittent fasting, so for example a lot of patients with hypothyroidism are overweight, and overweight is one of the conditions that can benefit from intermittent fasting, but if they have a thyroid problem, intermittent fasting might make that worse, and so any benefit that they might get from intermittent fasting would be canceled out by the worsening of thyroid problems, so you really have to address this on a case-by-case basis, and these are some of the considerations.

If the patient has an eating disorder, fasting is not a good option. If they have a history of eating disorders, fasting might be appropriate if they've really gotten that under control, but you'd want to make sure of that, and you'd probably want to make sure that they have some support or are seeing a psychotherapist or that they've had the evaluation of their condition recently and that they're in good shape in that regard. You may need to coordinate with other medical professionals who are managing their eating disorder if the patient wants to do intermittent fasting. But I would say in these cases, the safest option is to recommend regular meals. You should also be on the lookout for orthorexic behavior despite no previous eating disorder. So for those of you who are not familiar with this term, orthorexia is a term which has been coined which refers to obsessive behavior around food and a tendency to become addicted to special diets, and those kinds of patients are also not good candidates for intermittent fasting.

Children and teenagers, young teenagers especially, I don't think should intermittent fast. Their bodies need regular access to physical and cognitive fuel. Much like developing babies, they're still growing. They need calories, and often a lot of calories, and intermittent fasting is generally not a great idea for them.