

Webinar 9 Handout: **INTERMITTENT FASTING**

Intermittent fasting (IF) is one of the hottest diet trends of the moment, but the practice of fasting isn't new. Fasting has been around for *thousands* of years, used by ancient and even primitive cultures for religious, ritualistic and health-related purposes. Today, intermittent fasting is a broad term describing a diet pattern in which you don't eat (or eat a restricted number of calories) for a set period of time, then resume regular eating for a set period of time.

There are a few popular forms of IF used today. One version, referred to as time-restricted eating, involves eating all meals and snacks in an eight-hour window, followed by 16 hours of fasting (for example, fasting between 6pm and 10am, or 8pm and noon). Another version, the 5:2 diet, splits the week into five days of eating regularly and two days where intake is restricted to just 500 to 600 calories. There's also alternate day fasting (ADF) where you fast every other day, but eat whatever you want on non-fasting days, or modified ADF where you eat 500 calories every other day.

Research and Potential Benefits

For weight loss, the most basic reason IF can be effective is because people are likely to eat less overall because they can only eat during set time periods. During fasting, the body isn't getting fuel from food and must break down stored fat for energy, also aiding with weight loss.

Most studies on IF in humans have looked at weight loss in obese and overweight subjects and there's plenty of evidence that this strategy might work. A 2016 review paper found that most human IF studies, specifically alternate day fasting, result in a loss of 3% to 7% body weight. One randomized controlled trial (the gold standard in research) found a 6.5% body weight loss in the IF group compared with the group on a standard non-fasting diet.

Beyond weight loss, studies show IF may reduce markers of inflammation, such as serum tumor necrosis factor, and oxidative stress. Research also shows fasting can affect hormones, increasing production of beneficial ones like HGH (for muscle gain and fat loss) and BDNF (for cognition) and decreasing insulin levels. Animals studies and a few humans studies suggest IF may have cardiovascular and brain health benefits that could help extend lifespan, including drops in total serum cholesterol and triglycerides. Fasting has been linked to lower odds of diabetes and cardiovascular disease and animal studies have shown IF may have a chemoprotective effect against cancer. There's even evidence that IF might help improve mood.

As for lifestyle, IF is rigid in timing but flexible in choices. Not so much a diet as an eating schedule, clients on time-restricted eating have the flexibility to eat what they want so long as it fits within the allotted time to eat. Clients following 5:2 or AFD are free to choose any foods on non-fasting days. Interestingly, research shows following IF doesn't necessarily cause a compensatory increase in calories on non-fasting days, despite what may be expected from the effects of hunger.

Possible Side Effects and Considerations

While the potential benefits above may seem impressive, the evidence is based mainly on animal research and a relatively small number of human studies. Even more, a 2015 systematic review published in *The American Journal of Clinical Nutrition* found safety data on IF to be sorely lacking and that safety needs to be addressed in future research.

Restricting calories always comes with risks, so it's important to ensure clients are meeting nutrition needs while following an IF plan. Clients will likely feel hungry during fasting, which can lead to stress and ultimately increase inflammation in the body. Confining a person to a specific way of eating for a short time can also lead to yo-yo dieting or disordered eating down the road.

The big thing to consider is whether or not IF will realistically work for each specific client. Will it make healthy eating easier or harder? Will the person be able to stick to the schedule and plan and still meet nutrition needs? For some, skipping breakfast can be a trigger for overeating later in the day (despite the research that says compensatory eating doesn't typically happen) and eating breakfast would be highly beneficial.

It's not always clear in studies whether calorie restriction in general or the specific IF regimen is the major player for weight loss. There have only been a few randomized control trials looking at IF for weight loss in humans, all small and many showing no difference in weight loss between participants following IF and those on general calorie restriction.

Nutritious Life Tip: Only recommend IF to a very specific type of client. IF isn't a good match for anyone with a history of yo-yo dieting, but it may work for someone who is regimented and can make this eating pattern fit with his or her lifestyle. If a client is a candidate for IF, make sure she understands how to choose nutritious whole foods every day of the week to ensure she meets nutrient needs on fasting days and is avoiding junk on non-fasting days.

Sample Intermittent Fasting Menus

Menu 1: Time-Restricted Eating (fasting from 8pm to 12pm)

Breakfast

Coffee with MCT oil***many forms of IF allow for high-fat coffee during the fast*

Lunch (12pm)

Arugula salad with farro and chickpeas

Olive oil and lemon vinaigrette

Side of hummus and jicama

Snack

6 oz. plain Greek yogurt

1 banana

Snack

1/4 cup mixed nuts

1 cup homemade kale chips

Dinner (7:15pm)

Vegetable lasagna (provide recipe)

Broccoli rabe sauteed with olive oil and garlic

Menu 2: Alternative Day or 5:2

Fasting Day

Breakfast

2 eggs scrambled with spinach

Lunch

1 cup vegetable and wild rice soup

Snack

1 clementine

Dinner

3 ounces wild salmon with 1 cup cauliflower rice

Non-Fasting Day

Breakfast

1 slice Ezekiel toast with peanut butter and sliced apple

Coffee with milk

Snack

Snap peas with guacamole

Lunch

6 pieces brown rice sushi roll

1 cup miso soup

Green salad with ginger dressing

Snack

Air popped popcorn with matcha powder

Dinner

Grass-fed sirloin steak

1 small sweet potato

Asparagus drizzled with lemon juice