

## NHA Position on Juice Diets, Intermittent Fasting, and Fasting-Mimicking Diets

In recent years, several programs of calorie restriction and food use have become popular for promoting health and weight loss. These programs have often been suggested as routine dietary practices while also being compared and promoted as alternatives to water-only fasting. The view of the National Health Association (NHA) is that while these approaches provide potential benefits and risks that should be considered, they are significantly different and less effective for detoxification, recovery, and healing than water-only fasting.

### Juice Diets

The NHA promotes an unprocessed, exclusively *whole*-plant-food diet without added salt, oil, and sugar. When fruits and vegetables are juiced, the nutrient- and fiber-rich skins and pulp of these plants is left behind. In fact, there is no scientific evidence that extracted juices are healthier than the juice you get from eating fruits and vegetables in whole food form.

Due to this lack of fiber, juices made from fruit can promote a higher glycemic impact and disturb blood sugar levels by the rapid increase and absorption of fructose. Since it takes a greater quantity of food than you would eat to make a glass of juice, juices made from fruit are also more calorie-dense. For these reasons, if you decide to do a juice program, it is advisable to make juices only from very low-glycemic, green leafy vegetables and sprouts.

It is also important to consider that the intake of juices for short periods of a few days can provide a greater concentration

and absorption of nutrients and an increased consumption of plant foods for people whose diets and/or digestive systems have been compromised. So, while it can never be a long-term substitute for whole-food, plant-exclusive nutrition, the short-term use of fresh vegetable juices can promote detoxification, enhance nutrient availability, and help jump-start a health and weight-loss program.

### Intermittent Fasting

The use of the term intermittent fasting (IF) is actually a misnomer. True fasting doesn't begin until the sugar reserves of the body are used up and the body is forced to switch from glucose metabolism to fat metabolism/ketogenesis, which takes between 1–3 days of fasting.

Even though the body can achieve some ketogenesis and fat loss with IF, IF does not promote the level of food restriction required to enter a sustained fasting state and is not a true fast. Typically, most IF programs are really a time-restricted

pattern of eating and are most often done in the following ways:

- (a) A 5/2 day program: eating your normal diet for 5 days and doing 2 days of significant calorie restriction of approximately 500–600 calories per day.<sup>1</sup>
- (b) Some form of a time-restricted pattern of eating, where you eat during periods of 4, 6, 8, or 10 hours each day, and you don't eat during the other 20, 18, 16, or 14 hours, respectively. For example, if your first meal of the day is between 10–11 AM and your last meal of the day is between 5–6 PM, you are on an 8:16 cycle—eating in an 8-hour window while avoiding food for the other 16 hours.

While this is not a true fast and does not provide the extensive autophagy and benefits of longer water-only fasts (WF), there are still major benefits for health and weight loss that can be accomplished with this approach.

A recent review article on the benefits of IF stated that eating in a 6-hour period and fasting for 18 hours can trigger a metabolic switch from glucose-based to ketone-based energy with increased stress resistance, increased longevity, and decreased incidence of chronic diseases, including cancer and obesity?<sup>2</sup>

While many benefits have been chronicled in animal studies, the suggested human benefits include reductions of abdominal belly fat/obesity, heart rate, blood pressure, and inflammation as well as improvements in endurance and cognition. And similar to WF, IF promotes some autophagy, DNA repair, and ketogenesis while decreasing insulin and the activity of the aging enzyme mTOR. IF may promote some long-term improvements in insulin sensitivity, gut microbiota, body fat, and chronic inflammation, thereby increasing resilience and disease resistance.

Just keep in mind that because you are still eating on a daily basis, the sustained benefits of ketogenesis, detoxification, and autophagy that are routinely seen in days to extended weeks of WF cannot even hope to be matched by IF. But for people going through the routine pressures and strains of daily life and who cannot surrender to the resting demands of WF, regular IF can potentially get you back on a healthy track, promote some weight regulation, and help restore your connection with the normal diurnal rhythms and cycles of your body and the natural world around you.

## Fasting Mimicking Diets

Fasting-mimicking diets (FMD) were made popular by Professor Valter Longo, a leading researcher of longevity and the mechanisms of fasting and the director of the Longevity Institute at the University of Southern California. In his book, *The Longevity Diet*, Professor Longo describes a do-it-yourself 5-day FMD composed of vegetables (broccoli, tomatoes, carrots, pumpkin, mushrooms, etc.) and a small amount of olives, nuts, seeds, and olive oil along with supplements of vitamins and essential fatty acids.<sup>3</sup>

Longo also created an FMD program called ProLon that is a 5-day program containing prepackaged plant-based

soups, veggies, olives, crackers, nut-based bars (containing a variety of different nuts, coconut oil, and dark chocolate), honey, herbal teas, and supplements of vitamins and amino acids. Since this packaged program contains added salt, refined oil, saturated fat from coconut oil, and honey, it is certainly not consistent with a healthier, exclusively whole-plant-food diet without added salt, oil, and sugar.

**There is no evidence that either intermittent fasting or fasting mimicking diets can promote the widespread beneficial effects on metabolism, inflammation, blood pressure, the immune system, hormonal regulation, and cancer that are promoted by both short- and long-term water fasting.**

The FMD is a 5-day program of significant calorie restriction. Typically, the program provides about 1,100 calories on the first day and 700–800 calories on days 2–5, and provides food that is supposed to mimic the effects of a 5-day WF by basically tricking the body into thinking that it is fasting.

From his personal observations, Longo has suggested that 3 cycles of ProLon (5 days per month over a 3-month period) produced several significant metabolic effects at one week after the last cycle including increased autophagy, decreased body fat/weight (an average of 5 pounds of weight loss per 5-day cycle), cell repair and rejuvenation, healthy levels of bone density, and the maintenance of lean body mass.

The FMD is presented as a tasty, more comfortable alternative to WF, based on the assumptions that WF is too extreme and difficult for people to do and is frequently accompanied by potentially disturbing symptoms. These assumptions are unjustified, however, since the extensive experience of physicians trained in fasting supervision shows them to be untrue.

There is no doubt that people on fasts can sometimes be uncomfortable and experience headaches, lightheadedness,

nausea, and even pain. Yet, even though some of these changes can be disturbing, fasters often find comfort in the realization that many of the symptoms that may occur are typically a necessary part of their detoxification/recovery that demands a mindful surrender to rest. Under the ideal conditions provided by fasting centers where proper monitoring is done, people are carefully guided through the profound changes/symptoms of fasting and are often transformed by their ability to process through their discomfort and pathology.

Furthermore, even though some data suggest that both IF and FMD promote weight loss and some beneficial cellular/metabolic changes similar to water fasting and that they can be used by people maintaining their normal active lifestyles, there is no evidence that either IF or FMD can promote the widespread beneficial effects on metabolism, inflammation, blood pressure, the immune system, hormonal regulation, and cancer that are promoted by both short- and long-term WF.

Very often, the conditions that people are seeking to resolve with a fasting regimen require the combination of rest, food abstinence, detoxification, and introspective self-examination that only WF can provide. And if it is done in the proper setting, with monitoring and support, water fasting is an incomparable life-changing experience.

## REFERENCES

- <sup>1</sup> Mosley M, and Spencer M. *The Fast Diet: The simple secret of intermittent fasting*. Short Books, UK 2013.
- <sup>2</sup> Castro R, Mattson M. Effects of intermittent fasting on health, aging and disease. *N Engl J Med*, Dec 16, 2019, 381:2541-51.
- <sup>3</sup> Longo V. *The Longevity Diet*. Penguin Publishing Group, 2018.

