



ALL YOU NEED TO KNOW

About Fasting and The Fasting Mimicking Diet®



**Types of Fasts, Benefits
and Guide to Successful Adoption**

What is Fasting?

According to the International Food Council reports of 2018 and 2019, **fasting is currently among the top 2 diets in the US.**

Just three years ago, fasting was not even among the diets listed in the ranking. The recent fasting fame is mainly due to breakthrough science and discoveries coming out of Valter Longo labs at the University of Southern California showing the health, longevity and potentially disease related benefits of Prolonged Fasting and the Fasting Mimicking Diet; and the discoveries coming out of Satchin Panda's labs at Salk Institute, Mark Mattson at Johns Hopkins and Raffa De Cabo at The National Institute of Aging around intermittent fasting and its metabolic benefits.

Hippocrates, considered the father of western medicine propelled the healing power of fasting:

He wrote, *"Everyone has a physician inside him or her; we just have to help it in its work. Instead of using medicine, rather, fast a day."* Benjamin Franklin said *"the best of all medicine is resting and fasting."*

Fasting is a common practice to most divine religions. Science has recently identified the best fasting patterns and how to enhance the benefits of fasting while decreasing its challenges. Two ways of doing so is to follow the natural circadian fasting rhythm or fasting for 12-13 hours per day, or when fasting for longer periods, to still nourish the body with a special food that feeds the vital organs without triggering the food radars at the cellular level. This nutritional discovery is called the Fasting Mimicking Diet.



TYPES *of* FASTING

There are 3 types of fasting: Intermittent fasting, short-term fasting and periodic (also known as “prolonged”) fasting. Some merge the second and third category into prolonged fasting.

Benefits of Fasting Programs & How to Choose Which is Best for You

01 Intermittent Fasting Options:

Circadian Time Restricted Eating (TRE):

This is a type of circadian fasting which parallels the day/night cycle resulting in a 12-13 hour fasting periods. Respecting circadian rhythm is recommended by fasting researchers such as Prof. Valter Longo and Satchin Panda.

It is also a common practice of many centenarians (individuals living up to 100). Circadian Rhythm or Day and Night rhythm is an imprinted clock in our organs and systems and respecting it by not eating during the night mirrors this internal clock. This discovery was awarded the Nobel Prize in Medicine in 2017. Circadian TRE balances periods of food intake with periods of no food intake so that the body spends the calories it ingested rather than being in frequent periods of calorie intake and storage in the form of fat, which could result in obesity. For example, you might observe this version of fasting by not eating between from 8pm to 8am which could help you maintain a healthy body weight.

16:8 Time Restricted Eating:

The 16:8 fast means that you fast for 16 hours and you restrict your eating period to 8 hours. Most observers of this type of fasting do it by skipping breakfast.

This method of fasting became prevalent as a means to push the body further to lose weight. The challenge is that for 16 hours, there is no new nourishment for the brain and other organs and the body needs to rely on its own reserves to feed these organs. At this point in time, and awaiting further conclusive data, this type of fasting might be more suitable for better management of obesity where the benefits of losing weight fast could be more important than the potential challenges of an extra 4 hours (12-16hour) of no food ingestion.

For these reasons, L-Nutra launched the Fast Bar (www.fastbar.com) which is a bar that could be consumed around 12 hours of fasting to curb hunger, nourish the body and help achieving fasting goals while still enjoying a snack during intermittent fasting.



5:2 and Alternate Day Fasting:

5:2 means to fast or have a low-calorie diet for a day, twice a week and not to fast during the remaining five days. The fasting days are typically separated, not consecutive, and recommenders of this type of diets suggest eating during the fasting days 500 or less calories for females and 600 or less calories for males. This type of calorie ingestion is not designed to mimic fasting at the cellular level but mainly aims to under nourish the body for a couple of days a week to induce weight balance/loss.

Alternate Day Fasting or ADF: ADF means to fast on fewer than 500 or 600 calories every other day. Most experts are not in favor of such a diet as it is first very difficult to observe and creates a yo-yo effect that confuses the body's balance and homeostasis. It is not a prevalent type of fasting.

02 Short Term Fasting Options

Fasting for 2 or 3 consecutive days induces more fat burning while the stress of fasting for several days triggers a cellular process called 'Autophagy' or cell self-eating. The Discovery of Autophagy won the Nobel Prize in Medicine in 2016 and is the expression of a cell consuming its debris and organelles in order to rejuvenate and clean its inside space. Short term fasting is harder to observe given the number of consecutive days of fasting.

03 Periodic or Prolonged Fasting (PF) Options:

Water Only Prolonged Fasting

Fasting for 3 days or more: the main objective for practicing prolonged fasting is to induce a faster weight loss and trigger a deeper ketosis and cellular effects such autophagy and cellular rejuvenation, all of which support healthy aging and metabolic reset.

Since water fasting for such a period is very difficult and can be unsafe, researchers at the Longevity Institute of the University of Southern California developed a series of Fasting Mimicking Diets known as FMD® to nourish the body while not triggering the receptors and food pathways in the cells that help the cell recognize nutrition and leave the fasting mode. The FMD is typically a five-day food program characterized by plant-based proteins, fiber rich sources of carbohydrates and provides good fats from nuts, notably macadamia.

"The secret of prolonged fasting is that it causes the body to enter or partially enter a very different mode characterized by surviving off burning the body's on fat while supporting cellular balance, removal of old and worn out components and rejuvenative processes once normal levels of food become available again".

"Very long fasting periods of 7 days and longer push the body into using more of "itself" as fuel, therefore making fasting periods longer than 7 days more dangerous" and to be only done in medical clinics.

What Happens To Your Body During Fasting

The best way to understand what happens to your body in each phase of a fast is to compare your body on fasting to a company which now has no revenue.

So, if a company that needs a million dollars per month to operate has no revenue in a given month, it starts using its bank cash reserves and/or applies for credit.

The body does the same after the first day of fasting: borrows calories from liver and muscle reserves and starts breaking down fat. This is what happens with intermittent fasting, and therefore could be a good weight loss practice.

If the company still has no revenue for another month or two, bank cash savings are now insufficient and the company starts looking inside its operations for savings on some projects and re-routing some budgets to optimize operations.

The body on day 2 and 3 of fasting follows the same logic and starts asking some cells to consume debris and organelles and other leftovers to survive the stress of fasting. This process is what we defined as Autophagy.

Now, if the company still has no income for more than three months, the leadership takes another level of protection. This includes optimizing systems to further achieve a lean business and would let go of some of the employees who are less essential to the operations of the company. The body again follows the same defense line and now removes old and dysfunctional components and then replaces them with newly generated ones.

This ability of fasting and the following phase of re-feeding to replace old and worn out components and cells with new ones as part of a natural cellular process has been first described and studied extensively by the Longevity Institute at the University of Southern California, under the guidance of Prof. Valter Longo.

TIME Magazine named Prof. Longo among the top 50 most influential people in Healthcare for this discovery and its



potential use to support healthy aging and as well as its potential impact on various health conditions.

However, fasting for 4 or 5 days is very difficult to observe and could cause side effects due to the complete lack of calories, mineral salts, fibers, etc. To overcome these challenges, **Prof. Longo, under the sponsorship of the National Institutes of Health, developed the Fasting Mimicking Diet or FMD**, a plant-based nutritional program which uses a special nutrition program to orchestrate the metabolic pathways responsible for **cellular support and rejuvenation**.

ProLon[®]: The Revolutionary New Way to do a Prolonged Fast

The first to market Fasting Mimicking Diet (FMD) is ProLon, created by L-Nutra, Inc. ProLon offers you nutritious food, beverages and supplements for a period of five days. All of these ingredients ensure that you are nourished while triggering and keeping your cells in a fasting mode. You can then go back to your normal healthy diet afterwards without any alteration. **ProLon is one of the shortest diets specifically designed to fit in and not impose on your lifestyle.**

[LEARN MORE ABOUT PROLON HERE! >](#)

Here is the SECRET behind ProLon!

The secret formulation of the fasting mimicking diet (FMD) was developed over a decade of research & discovery at the Longevity Institute of the University of Southern California. Because several days of fasting on water only is very difficult to comply with and sometimes carries some risks, researchers lead by Prof. Valter Longo developed The Fasting Mimicking Diet to nourish the body while keeping its cells in fasting mode.

The first major discovery was to uncover how the cellular sensors (that inform our cells that there is enough food) work and the second discovery was about what types and ranges of proteins, carbs, and good fats could nourish the body while not triggering these sensors so that the cells remain in fasting, protectionist and reparation mode.

The ProLon formulation contains more than 73 plant-based proteins, fiber-rich source of carbs and healthy fats, in addition to minerals and vitamins (micro-nutrients). It has successfully gone through animal and human trials and was awarded several patents for its uniqueness. For these discoveries, TIME named ProLon discoverer, Prof. Valter Longo, among the top 50 most influential people in Health.

With the ProLon Fasting Mimicking Diet, you can get the benefits of prolonged fasting, while eating food!

What are the Benefits and how would you feel after ProLon?

As described above, ProLon provides your body with unique benefits:

1. Fast way to fat loss
2. Support metabolic balance
3. Cellular based clean-up and rejuvenation

With ProLon you will feel:

1. Empowered and in control of your health and diet
2. A sense of achievement and success
3. High energy and greater focus
4. A trimmer waistline from targeted visceral fat loss*
5. Lifestyle improvements and a change in your relationship with food

Behavioral Sciences show that small but significant wins are the key to lifestyle transformation and success in life.

The ProLon FMD is key to your success in improving your life and providing you a peace of mind for getting back on track (when you feel like you need to correct your diet) in a fast and effective way.

** In a clinical study, ProLon is shown over three cycles to help individuals lose an average of 5.7 lbs and 1.6 inches off their waist circumference.*



Tips for a Successful Fast

Guide for Safe and Successful Adoption of Fasting Into Your Lifestyle

Fasting is not a one size fits all protocol. It has many benefits and, for some pose risks.

The safest adoption of fasting regimen is probably to do a 12-hour circadian rhythm TRE/fast to maintain a healthy body weight and metabolism and 2-3 times a year to do Prolonged Fast (PF) with the Fasting Mimicking Diet for enhanced cellular rejuvenation.

For some who struggle with weight, doing 16:8 could help them correct their weight and improve their metabolic markers for a short period, but when this goal is achieved, they probably should revert back to a 12-13 hour TRE and periodic FMDs.

Fasting clinics that adopt prolonged (more than 10 days) water fasting under doctors' supervision have reported health benefits in many patients. Data on long term safety of these longer fasting periods is still lacking. Many clinical trials are taking place in humans to determine the safety and efficacy of the Fasting Mimicking Diet in various health states. However, FMD currently is not indicated to treat or cure a disease condition.

[Learn more about the ProLon Fasting Mimicking Diet >](#)