

Intermittent fasting (Time Restricted Eating – TRE) program to prevent and cure Obesity

An essential requirement of intermittent fasting (TRE) methodology is a total commitment to eating holistic, low glycemic, healthy fat-rich foods. During the fasting period, the glucose and insulin levels go down even further. Low insulin levels help prevent and cure obesity in 2 ways:

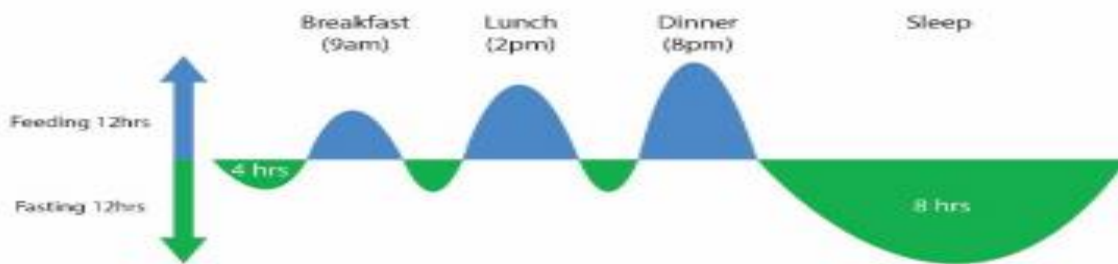
- i. Minimize hunger and food cravings – this cuts down on overall food intake in the day.
- ii. Less fat synthesis and fat storage as insulin is a fat storage hormone. The fasting plans which are easy to follow are:
 - a. Intermittent fasting or Time restricted eating (TRE) program.
 - b. Twenty-four-hour fasting, once or twice a week

1. **Intermittent fasting or TRE (Time Restricted Eating) Program** – This method of fasting is more popular because it is easy to follow. Between meals, one can have plenty of water, calorie-free drinks (see recipes at the back of the book) and 2 – 3 cups of tea or coffee/day, with minimal or no milk and sugar. To balance fasting/ feeding cycle for ideal body weight and waistline, the duration of the fasting period will depend on the starting weight and waistline parameters:

- a. **TRE Fasting program to maintain a healthy weight or treat mild obesity (up to 15kg over ideal body weight or larger than normal waistline)**

TRE 12:12 or TRE 14:10 Schedule – For this program, the night time fasting duration is 12 -14 hours with three meals per day schedulesmall breakfast, healthy lunch and dinner. Fasting period begins with dinner at 7-8 PM the previous evening and ends at breakfast at 8-10 AM the following morning. There should be 4-5 hours' time gap between breakfast and lunch and 6-7 hours time gap between lunch and dinner.

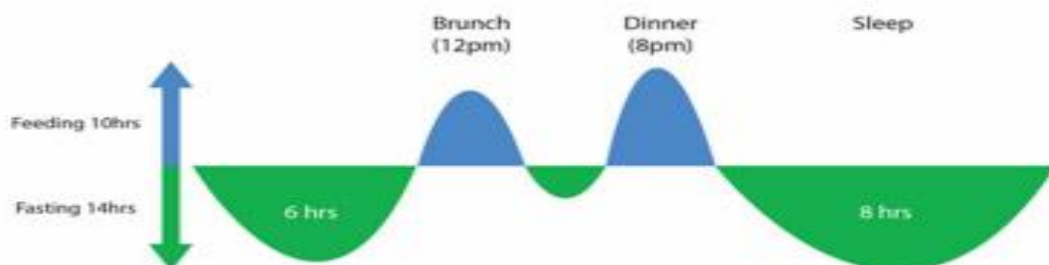
With increasing age, the metabolic rate goes down, and one starts to gain weight and waistline. That tends to happen over the age 40-45 Years. Women wrongly blame this on hormonal imbalance related to menopause. To prevent weight gain or to avoid additional inches to the waistline, the best strategy is to keep fasting cycle of 12 to 14 hours between dinner and breakfast. This fasting period will keep Insulin levels low for more than half of the 24-hour day cycle. As outlined above, the foods consumed at each meal should be low glycemic and holistic.



b. Overweight by 15-25Kg and abdominal obesity

TRE 16:8 hours with two daily meal program – Brunch (lunch and breakfast as one meal) and dinner. In this program, the night time fasting duration is 16 hours. This two-meal program requires skipping one meal a day. The time duration between dinner the previous evening and next meal –brunch the following morning should be 16 hours. Example eat dinner the last evening at 7-8 PM and eat brunch the following day between 11 AM-12 noon. The longer fasting cycle forces the body to use more of the stored glycogen and fat energy. It is easy to skip breakfast because the appetite for food at breakfast time is the lowest.

The time frame in the two meals per day schedule will be 16 hours between dinner and brunch and 7-8 hours between brunch and dinner. If one feels a little hungry between brunch and dinner, one can eat a small healthy snack (a fistful of nuts, boiled whole moong or chana in savory chaat or fruit). Drink plenty of calorie-free beverages (no drinks with any artificial sweeteners which produce hunger signals in the brain).



- c. Overweight greater than 25 Kg and a larger waistline TRE 18:6 hours program –**
The night time fasting duration is 18 hours followed by two meals a day - brunch and dinner. Example of this program is dinner at 7 PM the previous evening, followed by brunch at 1 PM the following day, with no snack between lunch and dinner. By prolonging fasting period, the body will be forced to use more of the stored fat for its energy needs.

2. **Twenty-four-hour fasting or one meal a day fasting routine** – Those who are motivated and wish to lose weight fast or are morbidly obese (twice the ideal body weight), can follow TRE program of 14:10 or 16:8 and add one meal a day fasting routine once or twice a week. Longer the fasting cycle, more the body uses up the stored fat.

Weight loss expectations with TRE Fasting/ Feeding program

TRE programs wherein, the fasting periods are more extended, up to 14 – 16 hours will typically, reduce body weight by 2 – 3 kg each month for initial 3 – 6 months. Higher the starting weight more the initial weight loss. The weight loss in TRE programs is at a much slower pace than with the traditional low-calorie diet plans. This process of gradual weight loss, however, is the key to success for a permanent weight loss. It is preferable not to fall into the temptation of checking the body weight more frequently than once every two-week interval. By the end of one year, typically the weight loss goal of 15 – 25 kg could be reached.

In contrast to low-calorie diet programs which are few week plans, the TRE fasting/feeding program can quickly become a way of life. There are no food cravings within 2 – 3 weeks of starting the TRE program so that the plan can become a way of life. When the desired weight loss gets achieved, one can scale back to TRE 12:12 or TRE14:10 program. These are easy to follow as most fasting period gets covered during the night sleep hours.

Fasting is an ancient ritual

In the ancient cultural traditions of both eastern and western civilizations, fasting occupied a central role. Hippocrates (460 – 370B.C), considered the father of modern allopathic medicine, promoted fasting and consumption of apple cider vinegar for good health. Spiritual fasting is practiced extensively amongst all the major religions in the world, such as Hinduism, Islam, Christianity, Buddhism, and Judaism.

It is unfortunate that fasting so widely practiced in Indian cultural tradition for thousands of years, is becoming an obsolete practice amongst urban populations. Fasting is a reliable tool for weight control, preservation of health and prevention of disease.

How does body meet energy needs during fasting

Two main energy reserves of the body are glycogen and fat as outlined above. These energy reserves get synthesized in the body from the excess of glucose in the blood with the help of the hormone insulin.

Glycogen is the short-term energy reserve which gets stored in the liver and muscle. Glycogen serves as the instant energy source during the regular fasting hours of the night and if need be, during the day when there is no glucose available from the ingested foods. Glycogen stores are good for 24- 36 hours of energy needs.

Fat is the backup energy reserve for prolonged periods of starvation. Once the glycogen stores are full, the excess of glucose in the blood is converted to fat by the insulin. The body has an unlimited capacity to synthesize fat, so there is no limit to the extent of obesity.

“Although excess fat in the food, for years has been blamed for the modern epidemic of obesity. Medical science now has shown beyond any doubt, that it is not fat, but the refined sugars in the foods which are responsible for the modern epidemic of obesity as well as Type 2 diabetes”.