

Intermittent Fasting: A Natural Key to Enhancing Longevity and Wellness

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Key points:

- Introduction
- Types of Intermittent Fasting
- Effects of Intermittent Fasting on Longevity and Wellness

Introduction

Intermittent Fasting (IF) is an age-old dietary strategy known to promote health, enhance wellness and potentially extend the individual's lifespan by aiding the body's internal physiological balance. It involves various eating patterns where the individual restricts caloric intake for a certain amount of time and then resumes eating after that time period elapses.

Types of Intermittent Fasting

Several methods of intermittent fasting have been established:

1. 16:8 Method: fasting for 16 hours, followed by an 8-hour eating window.
2. 12:12 Method: Equal 12-hour intervals for fasting and eating.
3. 5:2 Diet: Five days of normal eating followed by two days of caloric restriction.
4. Alternate Day Fasting: alternating between regular eating days and fasting/low-calorie days.

Each of these methods promote metabolic efficiency and cellular resilience through fasting-induced physiological changes.

Effects on Longevity and Wellness

1. Cellular Repair, Autophagy and Aging:

Fasting triggers autophagy, a cellular process which recycles depleted substances and treats damaged organelles and entire cells by lysosomal degradation.¹ This helps reduce oxidative stress and accumulation of misfolded proteins, both of which are associated with aging.

2. Improves Insulin Sensitivity and Utilization of Fat Stores:

Due to decreased food intake insulin production also decreases. Fasting depletes glycogen stores so body resorts to fat stores as energy source, leading to weight loss. This improves insulin sensitivity and promotes weight loss, both protective factors against the development of Type 2 Diabetes.²

3. Effects on Cardiovascular Health:

Intermittent fasting leads to metabolic shifts from glucose to fatty acids and ketones, resulting in improved lipid profiles with reductions in total cholesterol, triglycerides, and LDL cholesterol levels. This further prevents diseases such as atherosclerosis and high blood pressure.³

4. Cognitive Function:

Stabilized blood glucose levels due to fasting helps reduce cognitive fatigue, leading to enhanced focus

and mental clarity as using ketones as an energy source improves brain efficiency.⁴

5. Prevention against Neurodegenerative Diseases:

Intermittent fasting amplifies brain function by enhanced levels of brain-derived neurotrophic factor (BDNF), which supports mental health and might help delay the start of neurodegenerative diseases like Alzheimer's and Parkinson's.⁵

6. Impact on Women's Reproductive Health:

Intermittent fasting, particularly Time Restricted Fasting, has shown promise in improving reproductive health in women with PCOS. By potentially targeting hyperandrogenism, insulin resistance, and menstrual irregularities.⁶

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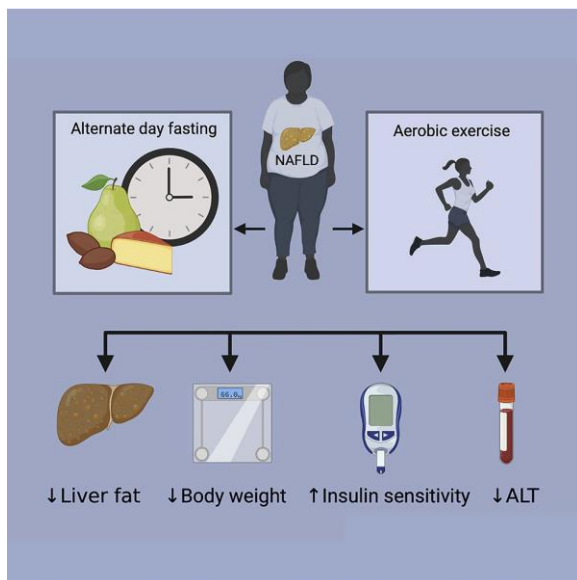


Figure 1: Effect of alternate day fasting.⁷

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2. Patel, S., & Montgomery, Metabolic health improvements with intermittent fasting: Insights from recent clinical trials
3. Diab, R., Dimachkie, L., Zein, O. et al. Intermittent Fasting Regulates Metabolic Homeostasis and Improves Cardiovascular Health.