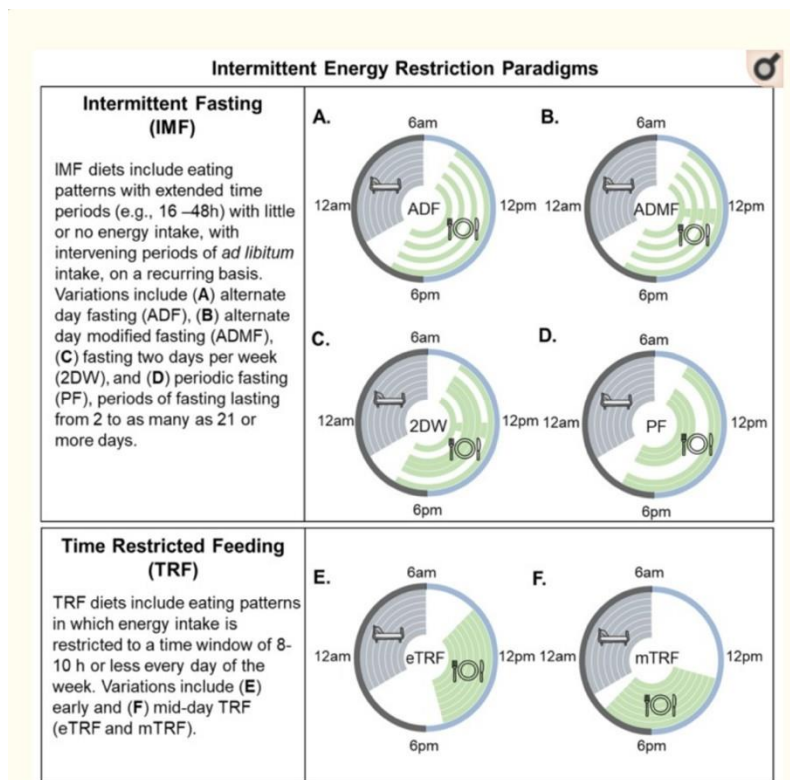




Effectiveness of Intermittent Fasting and Time-Restricted Feeding Compared to Continuous Energy Restriction for Weight Loss

The current obesity epidemic in developed countries is staggering in terms of its magnitude and public health impact. Healthy weight individuals (body mass index (BMI) of 18.5-25 kg/m²) are now the minority in the United States. Medical spending attributable to overweight and obesity has been estimated to be over 90 billion dollars in the United States alone. Reducing the daily calorie intake is the most widely prescribed strategy to induce weight loss. Current guidelines recommend



continuous energy restriction (CER; a daily energy deficit of ~500 or 750 kcals, or a 30% restriction from baseline energy requirements), along with a comprehensive lifestyle intervention, as the cornerstone of obesity treatment. On average, this approach produces modest weight loss (5-10% sustained for ≥ 1 year). The magnitude of weight loss with CER is minimally influenced by variations in diet macronutrient content, especially during long-term

follow-up. Regardless of diet and macronutrient content, adherence to CER typically declines within 1-4 months. As a result, the majority of individuals who lose weight with CER regain significant weight within 1 year.

Because of the relative ineffectiveness of traditional CER approaches for achieving and sustaining weight loss, there has been increased interest in identifying alternative dietary weight loss strategies. One such approach is prolonging the

2 fasting interval between meals (i.e., intermittent energy restriction, IER). The premise of this approach is that individuals do not fully compensate during fed periods for the energy deficit produced during extended periods of fasting between eating bouts. Furthermore, these regimens may be easier to adhere to and maintain over time than CER. Finally, IER may lead to metabolic adaptations that favor a greater loss of fat mass, the preservation of lean mass, and a greater ability to sustain weight loss.

Various IER regimens have gained popularity in recent years as strategies for achieving weight loss and other metabolic health benefits. These paradigms involve recurring periods with little or no energy intake (e.g., 16-48 h), with intervening periods of ad libitum food intake. Studies in rodents have

3 demonstrated that IER strategies such as intermittent fasting (IMF; $\geq 60\%$ energy restriction on 2-3 days per week, or on alternate days) and time-restricted feeding (TRF; limiting the daily period of food intake to 8-10 h or less on most days of the week) exert beneficial effects on the body composition, energy expenditure, and substrate oxidation. However, clinical studies comparing weight loss with IER regimens to traditional CER in adults with overweight and obesity are limited.

VOCABULARY:

Effectiveness of Intermittent Fasting and Time-Restricted Feeding Compared to Continuous Energy Restriction for Weight Loss

Staggering: Asombroso (a)

Spending: Gasto

Intake: Ingesta

Baseline: Referencia base

Fasting: Ayuno

Follow-up: Seguimiento

Regardless: Sin importar

Bouts: Episodios/momentos

Cornerstone: Fundamento

Lean: Magro