



SURGEON GENERAL



What's the deal with Intermittent Fasting?

Intermittent fasting (IF), often promoted for weight loss, is a diet that cycles between periods of eating and not eating. There are several variations so it's important to know what type we're talking about.

Common variations:

Intermittent energy restriction (IER): Periods of energy restriction interspersed with normal energy intake.

Alternate day fasting (ADF): "Fasting days" in which no energy-containing food or beverages are consumed, alternating with days where food and beverages are consumed as desired.

Alternate Day Fasting

Sun	Mon	Tue	Wed	Thur	Fri	Sat
✗	✓	✗	✓	✗	✓	✗

Alternate day energy restriction (ADER): Energy restriction of 60 - 70% below estimated requirements, or a total fast on alternate days.

Modified fasting regimens (MFR): Consumption of 20 - 25% of energy needs on regularly scheduled "fasting" days.

Time restricted feeding (TRF) A.K.A 16:8 diet: Consuming energy intake as desired within specific time windows (from 10 am to 6 pm, for example), which induces fasting periods on a routine basis.

Time Restricted Feeding



Religious fasting: Fasting regimens undertaken for religious or spiritual purposes.



The bottom line:

It is not clear if long-term IER is a safe, effective method of weight control for overweight or obese individuals or if IER provides health benefits to humans at any weight independent of weight loss.

At present, there is insufficient evidence to recommend any IER regimens.

Military personnel should not be on duty in a fasted state as it can negatively affect operational readiness.



Looking for more information on diets?

Contact your local Health Promotion Office to request a 'Myths and Facts on Diets' briefing.

What does the research say?

Weight loss - Intermittent energy restriction (IER) may promote weight loss however, IER is no more effective than continuous energy restriction (CER). CER means consistently limiting your calories.

Muscle mass preservation - When you lose weight, you lose fat and muscle. Studies suggest the overall protein content of the intermittent fasting and CER diet, rather than the pattern of energy restriction, is what determines how much fat free mass (muscle) you lose.

Daily living activities - It is often difficult to maintain daily living activities suggesting it is hard to follow these specific regimens over time.

Health behaviours - There is a lack of evidence regarding the impacts of intermittent fasting on health behaviours such as diet, sleep and physical activity.



Side effects - Intermittent energy restriction is associated with fatigue, stress, headaches, constipation, dehydration, mood variations and confusion.

Future research - Long-term quality studies are needed to examine weight maintenance after weight loss. Short and long-term quality studies are needed, especially in military populations, to assess the effects of intermittent energy restriction on specific military environmental factors.

Already on the IF bandwagon? Keep these tips in mind:

- 1** A healthy balanced diet is still important. Ensure you are meeting your requirements for important nutrients like fibre, vitamins and minerals.
- 2** For reasons including performance and injury prevention, avoid fasting while on duty.
- 3** Stay hydrated.
- 4** There's nothing wrong with weight loss as a goal but remember that your health is more important than a number on the scale. Sleep, stress management, and physical activity, among other factors, all contribute to weight management and a healthy lifestyle.

Looking for more information on nutrition?

Contact your local Health Promotion Office to register for the *Top Fuel for Top Performance* or *Weight Wellness Lifestyle Programs*.

References:

1. Harvie, M., & Howell, A. (2017). Potential Benefits and Harms of Intermittent Energy Restriction and Intermittent Fasting Amongst Obese, Overweight and Normal Weight Subjects—A Narrative Review of Human and Animal Evidence. *Behavioral Sciences*, 7(1), 4.
2. Headland M, Clifton PM, Carter S, et al (2016). Weight-loss outcomes: a systematic review and meta-analysis of intermittent energy restriction trials lasting a minimum of 6 months. *Nutrients*, 8(6), 354.
3. Patterson, R. E., Laughlin, G. A., Sears, D. D., LaCroix, A. Z., Marinac, C., Gallo, L. C., ... & Villaseñor, A. (2015). Intermittent fasting and human metabolic health. *Journal of the Academy of Nutrition and Dietetics*, 115(8), 1203.