Intermittent fasting: fitness fad or weight loss miracle?

Abstract

Obesity is a worldwide epidemic due to the availability of many unhealthy food options and limited physical exercise. Restriction of the daily food intake results in weight loss, which is also associated with better health outcomes including triglycerides, total cholesterol, low-density lipoprotein cholesterol, blood pressure, glucose, insulin, and C-reactive protein.

Periods of voluntary abstinence from food and drink (i.e., intermittent fasting) has been practiced since earliest antiquity by peoples around the globe. Books on ethnology and religion describe a remarkable variety of fasting forms and practices. Renewed interest in fasting regimens is evidenced by a plethora of popular press publications and diet recommendations. For example, in 2013, Mosley and Spencer published a best-selling book titled "The Fast Diet," which touts the benefits of restricting energy intake severely for two days a week while eating normally the rest of the week. Dozens of books promote various fasting dietary patterns and the web offers hundreds of fasting-related sites. However, scientific evidence for the health benefits of intermittent fasting in humans is often extrapolated from animal studies, based on observational data on religious fasting (particularly Ramadan), or derived from experimental studies with modest sample sizes.

The overall objective of this study is to provide an overview of intermittent fasting regimens and summarize the evidence on the health benefits of intermittent fasting with a focus on human intervention studies. This review examines studies conducted on intermittent fasting programs to determine if they are effective at improving body composition and clinical health markers associated with disease. Intermittent fasting protocols can be grouped into 16/8 hour fasting, one meal a day (one meal a day), alternate-day fasting, whole-day fasting, and time-restricted feeding.

It is well known that in humans, even a single fasting interval (e.g., overnight) can reduce basal concentrations of metabolic biomarkers associated with chronic disease such as insulin and glucose. For example, patients are required to fast for 8–12 hours before blood draws to achieve steady-state fasting levels for many metabolic substrates. Therefore the important clinical and scientific question is whether adoption of a regular intermittent fasting regimen is a feasible and sustainable population-based strategy for promoting metabolic health. In addition, research is needed to test whether these regimens can complement or replace energy restriction and if so, whether they support long-term weight management.

Biography

Priyanka Sainju has completed her master's degree in food and nutrition at the age of 26 from Tribhuwan university of Nepal. She has been working as a clinical dietitian since 2017 at B&B hospital which is one of the renowned hospital of Nepal. She is also an in charge of critical care nutrition of the hospital. She is a specialist in therapeutic consultation such as weight reduction, weight gain, diabetic diet, renal diet, hepatic diet,, gestational diabetic diet, high protein diet and diet specific to diseases.

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