The Full Picture is more Complicated but an 8-Hour Eating Window Stood Out for Weight Loss

Researchers examined associations between different time-restricted eating (TRE) window durations and changes in body weight and cardiometabolic outcomes.

TRE is a type of intermittent fasting in which the eating period is limited to 4–12 hours per day. Conventional weight-loss approaches often involve calorie counting and restrictions on specific foods, whereas TRE typically does not prescribe dietary composition or caloric intake. TRE-adherent individuals typically decrease their caloric intake by about 200 to 500 kcal/day and lose about 1% to 5% of their initial weight.

A recent Cochrane meta-analysis found little difference in weight loss between conventional dietary approaches and intermittent fasting (including TRE), though the certainty of the evidence was low. By comparison, meta-analyses that focused solely on TRE interventions report reductions in body weight. Studies have also reported mixed effects of TRE on cardiometabolic outcomes. TRE windows vary widely across studies; as such, the optimal number of hours of eating/fasting remains unclear.

Study

In the present study, researchers examined associations between varying TRE windows and body weight and cardiometabolic outcomes, including blood pressure (BP), fasting plasma glucose (FPG), and lipid profile. They conducted a pooled analysis of individual data from five TRE trials. Three were single-arm, and two had randomized controls, so the eating-window groups were not randomized head-to-head. All trials recruited adults with a habitual eating window of at least 14 hours per day and at least one component of metabolic syndrome.

Participants assigned to TRE limited their eating windows to 8, 10, or 12 hours, with no restrictions on energy intake or dietary quality. Controls maintained their habitual ad libitum intake, received nutritional counseling, or were given guidance on healthy eating. The trials lasted three to six months and were conducted in the United States (three) and Europe (two). Participants used a

mobile application to log their daily food and beverage intake. BP and body weight were measured.

FPG, triglyceride, and high-density lipoprotein–cholesterol (HDL-C) levels were measured; low-density lipoprotein–cholesterol (LDL-C) was calculated using the Friedewald equation in four of the five studies. The study's primary outcome was the change in body weight from baseline in kilograms and as a percentage of initial body weight. Secondary outcomes included BP, FPG, and lipid profile (HDL-C, LDL-C, and triglycerides).

Linear regression was performed to examine the associations between TRE interventions and primary and secondary outcomes, using allocated eating windows during the intervention, actual eating windows measured during follow-up (as a proxy for adherence to TRE or control conditions), and changes in eating windows between pre- and post-intervention periods. Models were adjusted for sex, age, and baseline body mass index (BMI).

Results

The study included 124 participants, with a mean age of 47 years and a baseline eating window of 15 hours. Most participants were female (67%) and assigned to TRE (77%). The TRE groups included 11, 59, and 25 participants allocated to the 8-, 10-, and 12-hour TRE regimens, respectively. On average, participants assigned to TRE reduced their eating window by approximately four hours and lost 2.18 kg of body weight compared to baseline.

Controls did not significantly reduce their eating window or body weight. Participants assigned to 8-hour TRE lost more weight than those assigned to 12-hour TRE or controls, although the difference compared with 10-hour TRE was not statistically significant. This pattern generally persisted after adjusting for baseline BMI, age, and sex. Analysis of the actual eating window indicated that shorter windows were associated with greater weight loss after the intervention, but adjustment for age, sex, and baseline BMI attenuated the association.

Greater decreases in the eating window during TRE were also associated with greater weight loss at the end of the intervention, after adjusting for baseline eating window. The association weakened after adjusting for sex, age, and baseline BMI. Participants on 10-hour TRE had greater decreases in systolic BP compared to those on 12-hour TRE. There were no other significant differences in BP, FPG, or lipid profile by allocated eating-window duration. These outcomes were also not associated with actual eating-window duration or changes in the eating window. Most participants did not have diabetes and had normal fasting glucose levels, which may have limited the ability to detect improvements in glucose levels.

Conclusion

Taken together, 8-hour TRE was associated with greater weight loss than 12-hour TRE and controls; the 10-hour comparison was not statistically significant. Greater decreases in habitual eating windows were also associated with greater weight loss, but this relationship weakened after adjustment. TRE duration showed no consistent relationship with lipid profile, BP, or FPG.

The study's limitations include a small sample size, a small number of trials, small study groups, heterogeneity between studies, follow-up of up to 6 months, no quantification of caloric intake, no eating windows under 8 hours, and no adjustment for multiple comparisons. Race and ethnicity were not included as covariates because they were not consistently collected across

studies. Further studies are needed with longer follow-up durations, more diverse populations, and a wider range of TRE windows.

Source:

https://www.news-medical.net/news/20260914/An-8-hour-eating-window-stood-out-for-weight-loss-but-the-full-picture-is-more-complicated.aspx