SWACSM Abstract

The Effects of Alternate Day Modified Fasting on Diet and Weight Loss: A Pilot Study

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ABSTRACT

Alternate day fasting has been shown to be an effective strategy for weight loss and improving metabolic health but adherence is challenging. Alternate day modified fasting (ADMF) is an alternative approach that allows for a meal (~25% of calories) to be consumed on the fast day to help make the fasting protocol more sustainable. **PURPOSE:** The objective of this study was to examine the impact of a 14-day alternate day modified fast on energy intake, macronutrient composition and body composition. **METHODS:** Forty two participants (24 male/18 female) completed 3 days of baseline testing followed by a 14-day treatment period where they followed a modified alternate day fasting regimen that consisted of fasting days alternated with normal eating days. On the fasting days the participants consumed 25% of their daily caloric requirements in one meal. Diet was assessed using the automated self-administered 24-hour recall. There were 2 days assessed at baseline and 4 random non-consecutive days assessed during the intervention period (2 fasting and 2 non-fasting days in the ADMF condition). Body weight and composition were assessed at the beginning and end of the intervention period. Body composition was assessed by DXA. **RESULTS:** There was a significant period by condition interaction for energy intake ($F = 105.4$, $P < 0.01$), grams of protein ($F = 51.1$, $P < 0.01$), fat ($F = 121.0$, $P < 0.01$) and carbohydrate ($F = 63.8$, $P < 0.01$). Average daily energy intake (-620 ± 51 kcal, $P < 0.01$) and consumption of protein (-20 ± 3 g, $P < 0.01$), fat (-27 ± 3 g, $P < 0.01$) and carbohydrate (-77 ± 6 g, $P < 0.01$) went down from baseline in ADMF, and all but carbohydrate ($P = 0.16$) were significantly different from control. For ADMF, all dietary variables were significantly lower on the fast days compared to the non-fast days (Ps < 0.01). There was no significant difference between conditions for weight ($F = 0.1$, $P = 0.83$) or total body fat ($F = 0.1$ and $P = 0.77$). **CONCLUSION:** These findings indicate that the practice of alternate day modified fasting is an effective strategy for reducing caloric consumption. However, 14 days may not be long enough for this level of energy restriction to manifest changes in body weight and fat.