

### An Eight-Week Time-Restricted Feeding Study Reduces Body Weight in College Students: A Pilot Study

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**Objectives:** College students' dietary patterns may predispose them to weight gain and risk for cardiometabolic conditions later in life. Time-restricted feeding (TRF), a type of intermittent fasting, may confer health benefits, including reductions in body weight. Currently, it is unknown if TRF might impact diet quality. The objective of this randomized controlled study was to assess the feasibility of a TRF protocol versus a control (CON) protocol for eight weeks on dietary patterns, anthropometric measures, and cardiometabolic indices in college students. We hypothesized that dietary patterns, anthropometric measures, and cardiometabolic indices would improve for participants in the TRF group.

**Methods:** Healthy college students were randomly assigned to a TRF intervention group (six-hour daily eating window) or a CON (16-hour daily eating window) for eight weeks. One 'cheat' day was permitted each week, and outcomes were measured at weeks zero, four, and eight. Due to COVID-19 restrictions, data collection at week eight was

incomplete and these data were not viable; hence, only change data at week four are reported. The Rapid Eating Assessment for Participants [shortened version] questionnaire was used to assess shifts in dietary patterns.

**Results:** Of the 25 initial participants, 17 completed the study (TRF group;  $n = 7$ ; CON group;  $n = 10$ ; age,  $23 \pm 4$  years; BMI,  $23.2 \pm 2.3$  kg/m<sup>2</sup>). Six TRF participants withdrew from the trial (43%) due to study-related side effects, including excess hunger and poor energy; additionally, in each group, a single participant was lost to follow-up. Change in body weight at week four was significantly different between the TRF group ( $-1.1 \pm 1.6$  kg) and the CON group ( $0.7 \pm 1.3$  kg); ( $P = 0.016$ ). There were no between-group differences for change in dietary patterns and cardiometabolic indices ( $P > 0.05$ ).

**Conclusions:** Although dietary patterns and cardiometabolic indices were not altered between groups over the course of the trial, body weight was reduced in the TRF participants compared to the CON participants. These preliminary data suggest that an 18-hour TRF protocol may be useful for weight reduction; however, this protocol is difficult to follow. Future studies should identify modifications to make TRF more acceptable to users and focus on diet quality.

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