TACSM Abstract

Impact of Time Restricted Feeding on Markers of Cardiometabolic Health

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ABSTRACT

Time restricted feeding (TRF) is a form of intermittent fasting in which all calories are consumed within a certain amount of time (i.e. 6-8 hrs) only water is ingested for the remainder of the day. Previous research shows improvements in body composition and some markers of cardiometabolic health, but it is not clear if these results were due to the decreased eating window, or due to a decrease in caloric intake that typically occurs with fasting protocols. **PURPOSE:** to assess whether a caloric deficit is necessary to achieve improvements in cardiometabolic health as well as evaluate the impact TRF has on blood markers of oxidative stress. **METHODS:** Participants (n=22) were apparently healthy young men (22 ± 2.5 yrs; 178.4 ± 6.9 cm; 90.3 ± 24 kg) randomized into an iso-caloric group (had to consume the same number of calories as before the study) or an ad libitum group. Both groups participated in a TRF protocol of 8 hours feeding and 16 hours of fasting (water only) daily for 28 days. Before and upon completion of the study, the following measures were taken: blood pressure, body fat percentage, fat mass, fat free mass, insulin, cortisol, growth hormone, glutathione, superoxide dismutase, adiponectin, blood lipid panel, and blood glucose. **RESULTS:** Both groups demonstrated significantly ($p<0.05$) increased high density lipoprotein cholesterol, reduced plasma adiponectin, diastolic and systolic blood pressure, in addition to improvements in body composition (body fat percentage as measured by the BOD POD and skinfold, and fat mass decreased) ($p<0.05$). There were no significant changes in blood markers of oxidative stress, inflammation, metabolic hormones, fat free mass, resting metabolic rate, glucose levels, or blood lipid markers outside of high density lipoprotein cholesterol. **CONCLUSION:** A TRF protocol with an 8-hour eating window can improve markers of cardiometabolic health including body composition, blood pressure, lipids, and adiponectin without changing daily caloric intake.