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Ultra-Processed Food is Associated with BMI, Sedentary Time, and Adverse Dietary Patterns in Young Adults

Bailey T. Capra, Evan L. Matthews, Adrian L. Kerrihard, Peter A. Hosick, Montclair State University, Montclair, NJ

Ultra-processed foods (UPF) make up roughly 58% of the average American diet and are associated with poor nutrient quality of the diet, increased all-cause mortality, greater caloric intake, weight gain, and may impact physical activity and performance. It is unknown whether these effects are present in young active populations. **PURPOSE:** To explore relationships between UPF and physical activity, performance, and dietary makeup in young active adults. **METHODS:** 42 healthy college students were recruited. Subjects were virtually interviewed to determine medical history, anthropometrics, socioeconomic status, and physical activity level using validated surveys. To determine UPF and other nutrient intakes, subjects completed two 24-hr recalls. Correlations were performed between UPF and dependent variables of interest. Additionally, data were median split into the top 50th percentile (HIGHUPF) and low 50th percentile (LOWUPF) groups based on UPF intake (%). Independent samples t-test were used to analyze differences between groups. **RESULTS:** Our t-test analysis showed that compared to the LOWUPF group, the HIGHUPF group exhibited lower protein (%) intake ($p=0.01$), higher added sugar (tsp/1000kcal) intake ($p=0.03$), higher refined grains (oz/1,000kcal) intake ($p= \leq 0.001$), and higher sedentary time (mins/day) ($p=0.03$). No significant differences in BMI (kg/m^2) were seen between HIGHUPF (25.5) and LOWUPF (23.8) ($p=0.07$), however, an ANCOVA analysis showed that BMI was significantly higher in HIGHUPF ($p=0.05$) after controlling for physical activity (total recreational metabolic equivalents (METs)). **CONCLUSION:** These results suggest that recreational physical activity can offset the lipogenic effects of UPF. Greater UPF intake is associated with significantly greater sedentary time, and adverse dietary makeup. As such, these findings support the need for the US dietary guidelines to address the adverse health effects of UPF in greater detail.