

Introduction: Adiponectin is a protein-based hormone secreted by adipocytes and assists in several metabolic processes including glucose regulation and fatty acid oxidation. Low adiponectin levels are known to be associated with increased insulin resistance and obesity. Previous studies have shown that circulating iron has an inverse relationship with adiponectin levels. It is unknown whether dietary iron has the same association with adiponectin levels.

Purpose: The purpose of this study is to examine the relationship between dietary iron intake and adiponectin levels. **Methods:** This study examined 42 non-diabetic women (Age: 20.7 ± 2.8 years; BMI 27.6 ± 3.6). The subjects' dietary nutrient intake was assessed using a self-reported method through the Automated Self-Administered 24-hour (ASA 24) questionnaire. Subjects visited the KSU Human Performance Laboratory after an overnight fast. Blood samples were collected, separated, and plasma was frozen and stored until analysis. Plasma adiponectin levels were analyzed by enzyme-linked immunosorbent assay (ELISA). Body composition was measured using dual energy x-ray absorptiometry (DXA). **Results:** Relationships between adiponectin and dietary iron will be presented at the GURC conference in November.