

# The Effect of Six Months of Daily Consumption of Sugar Sweetened Beverages or Diet Beverages on Cardiovascular Disease Risk Factors

Theodore J Angelopoulos<sup>2</sup>, Joshua Lowndes<sup>1</sup>, Stephanie Sinnott<sup>1</sup>, James Rippe<sup>1</sup>

1 - Rippe Lifestyle Institute, Celebration, FL, 2 – Emory & Henry College, Emory, VA

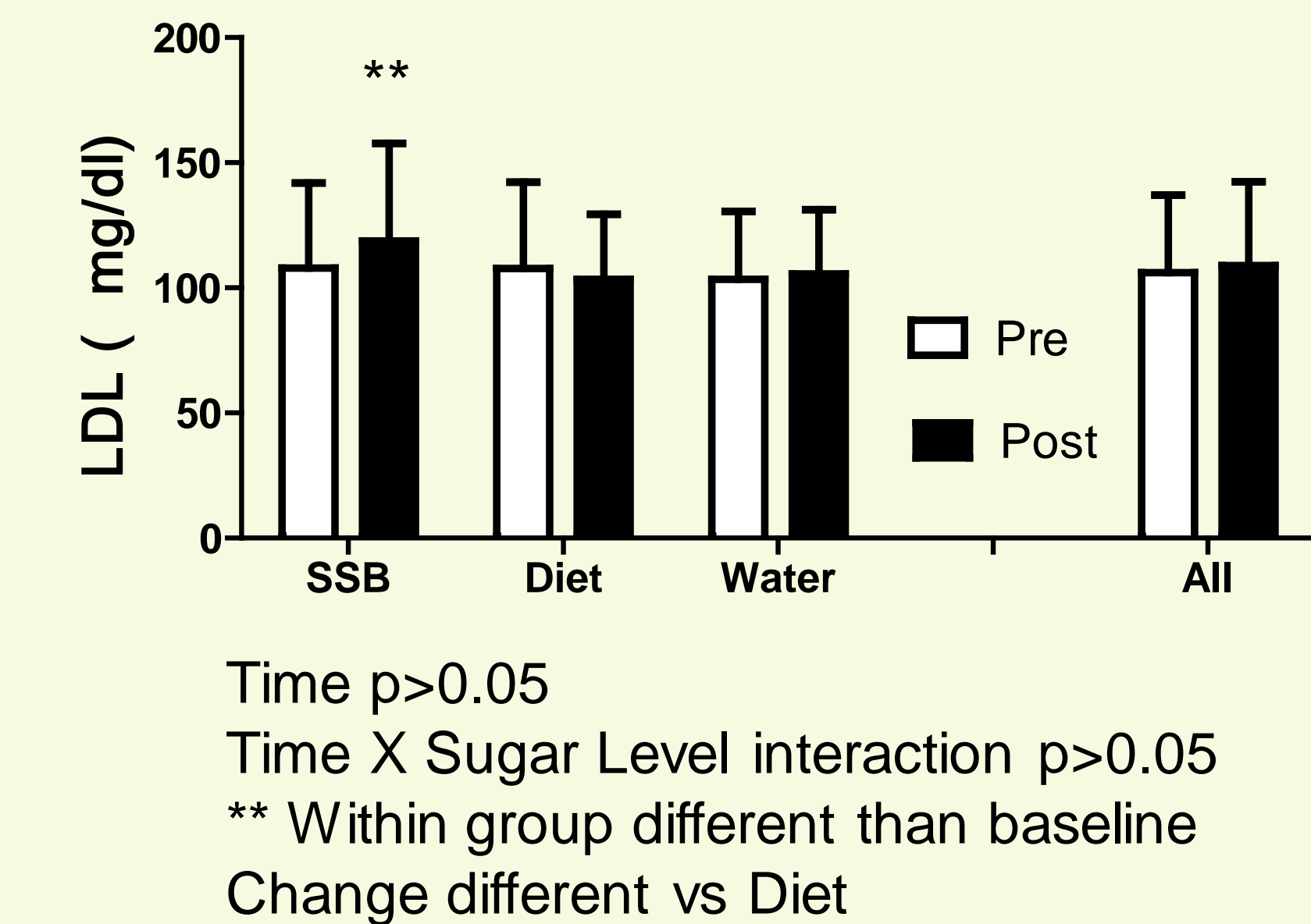
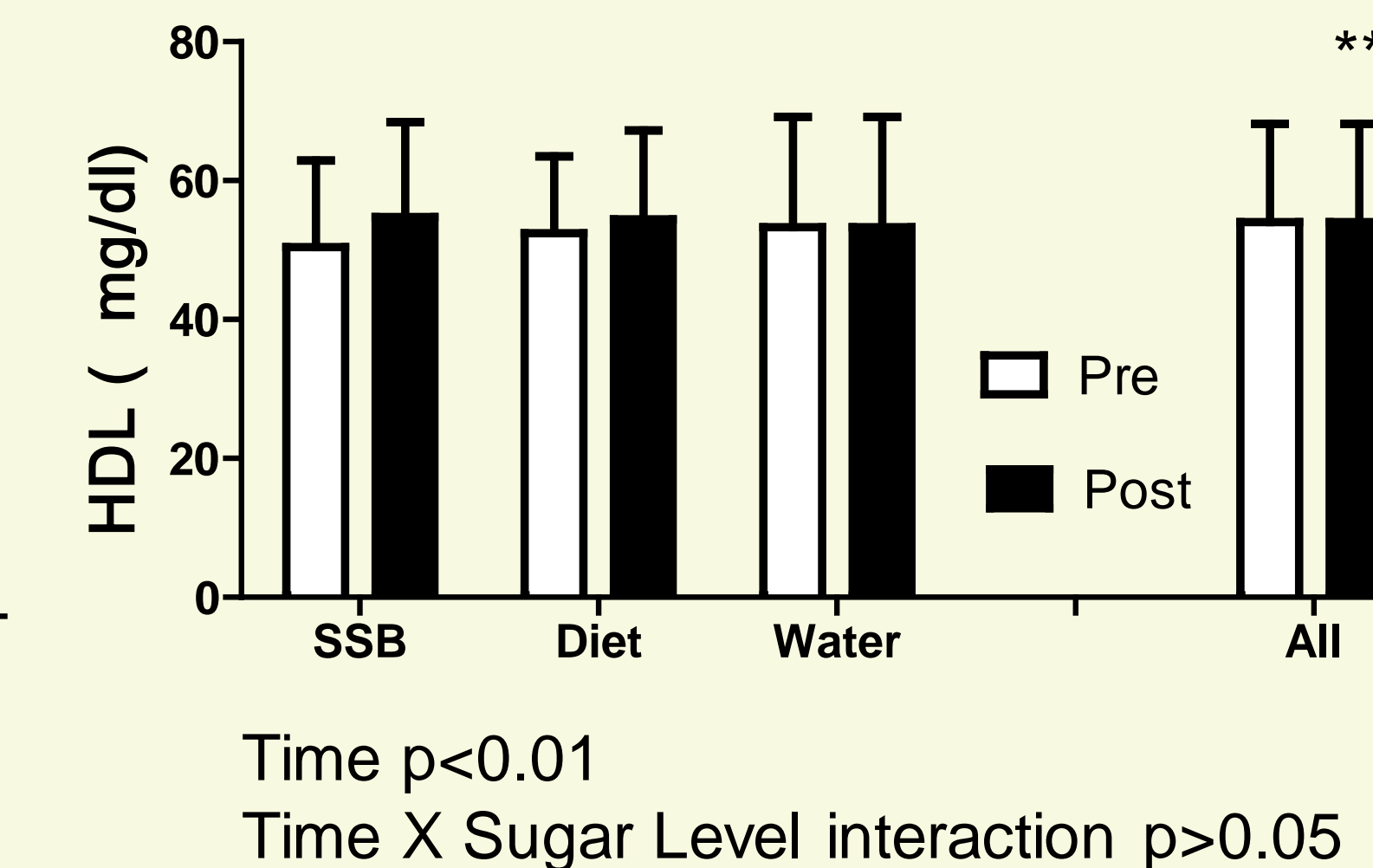
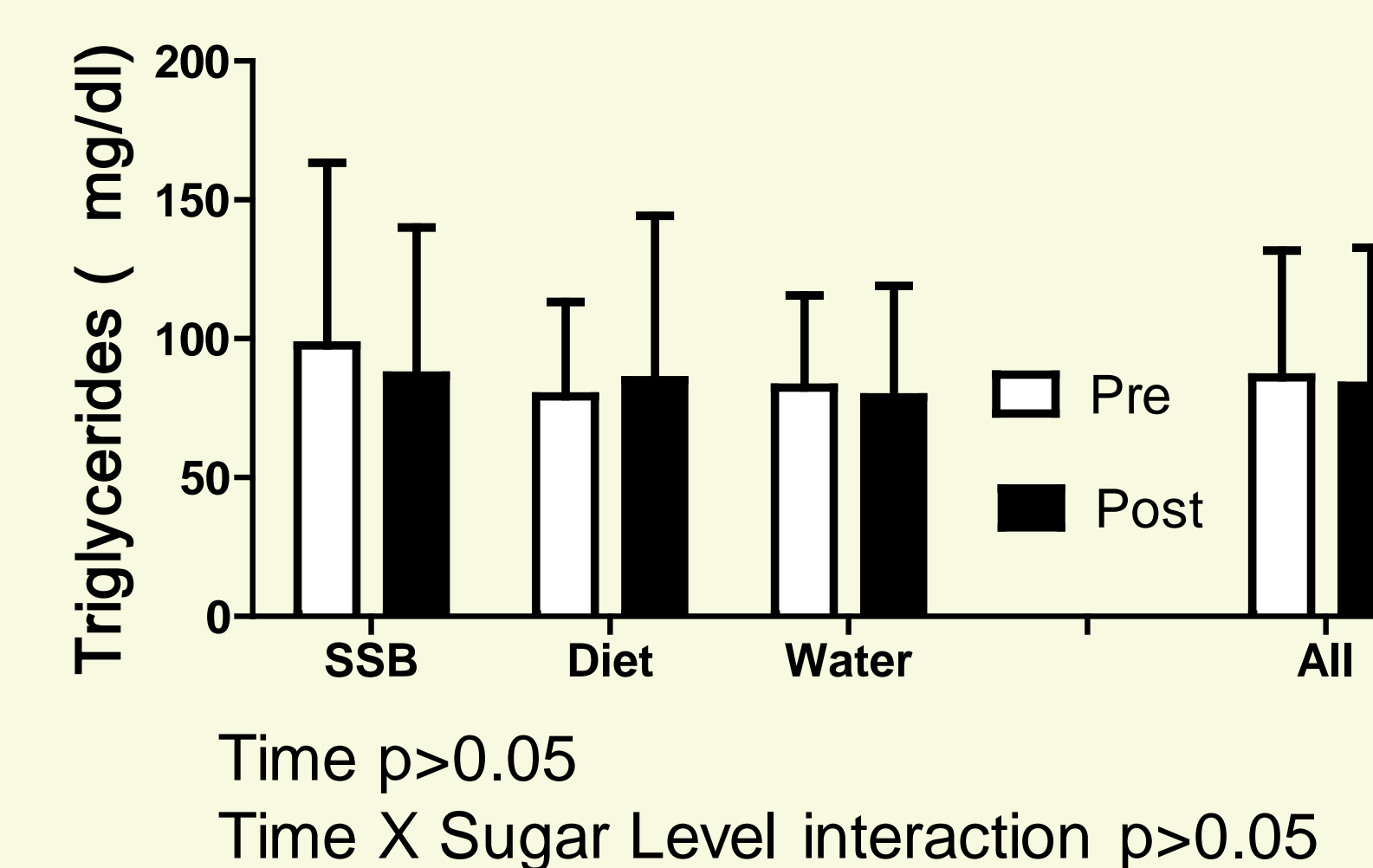
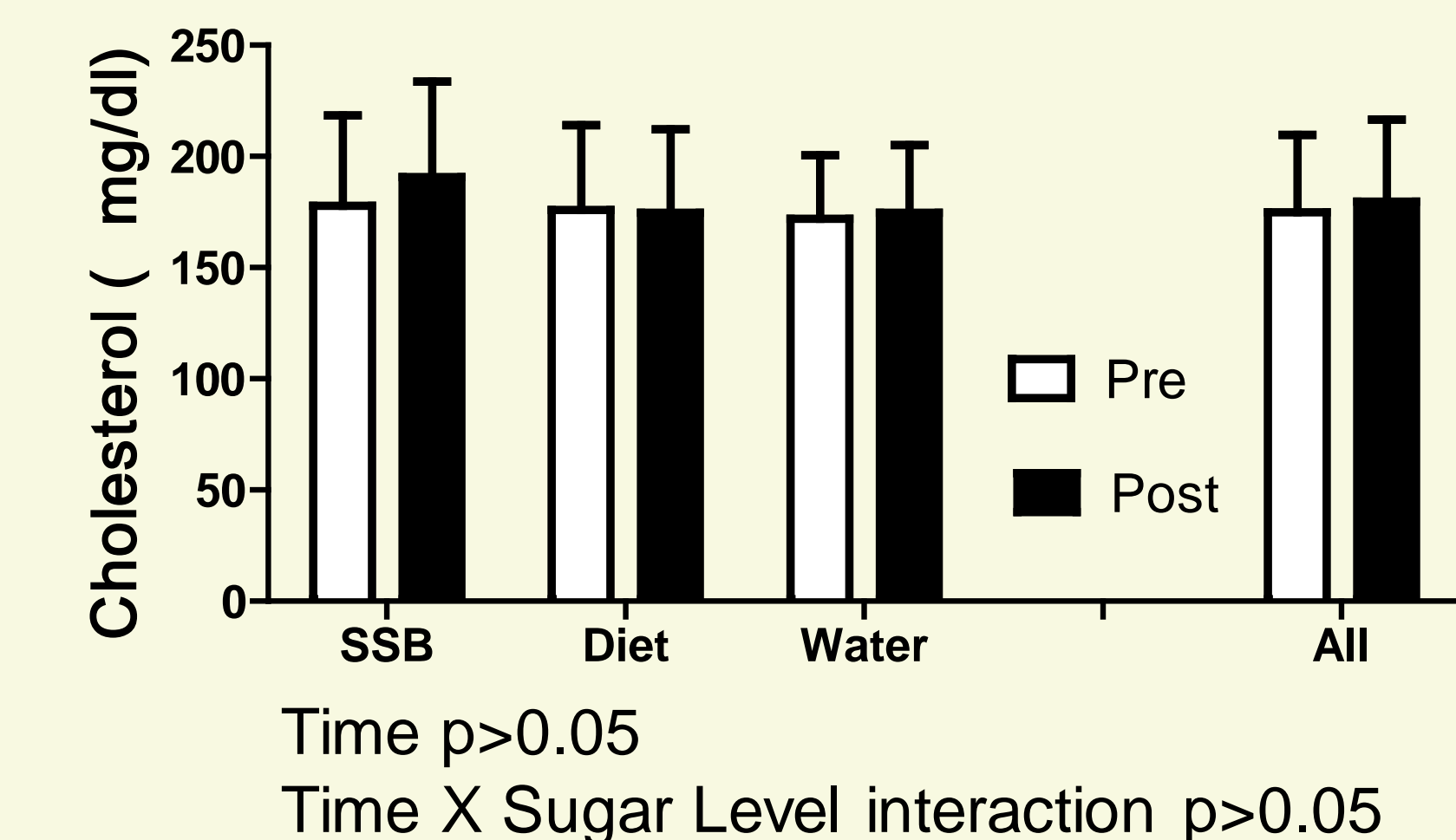
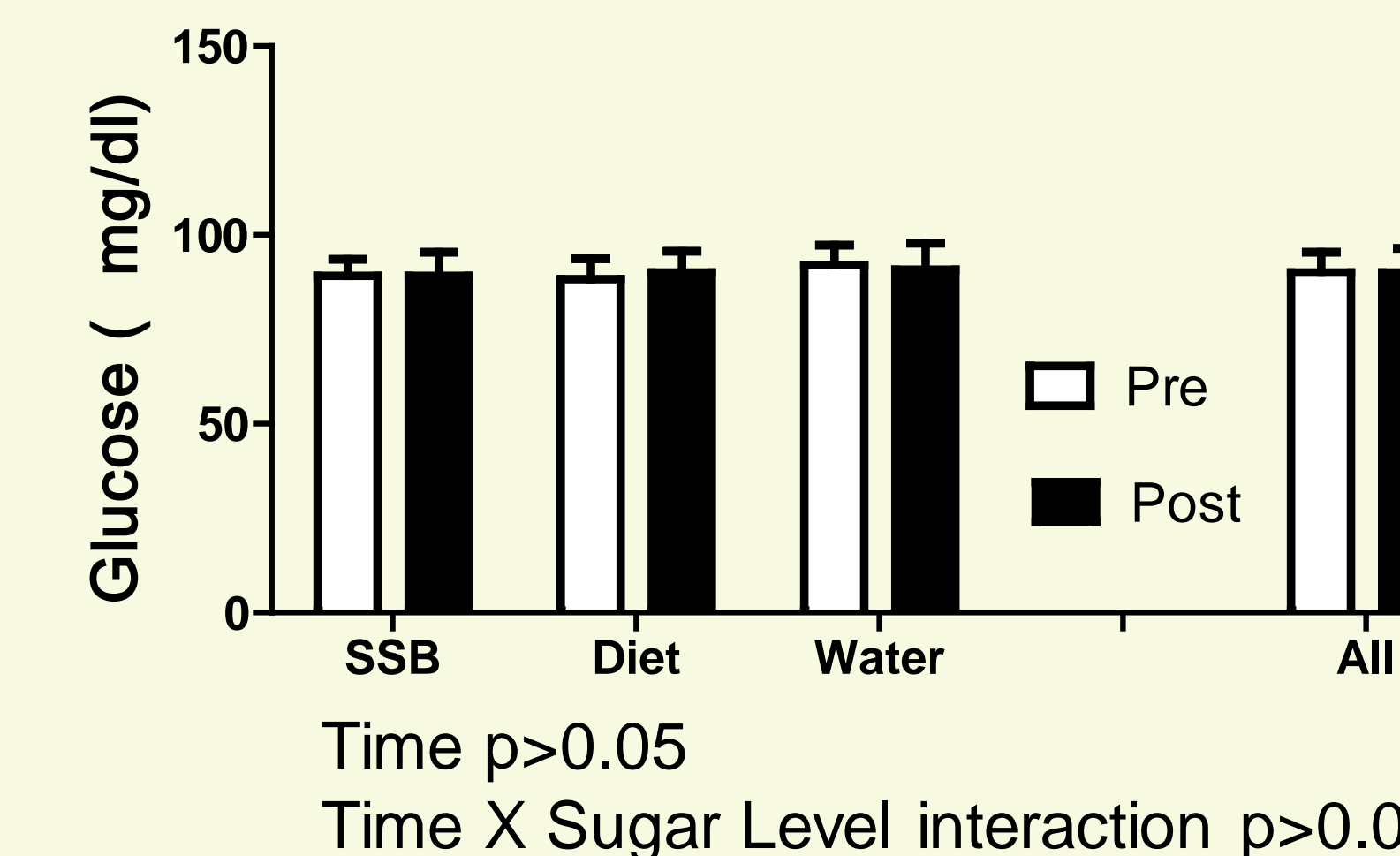
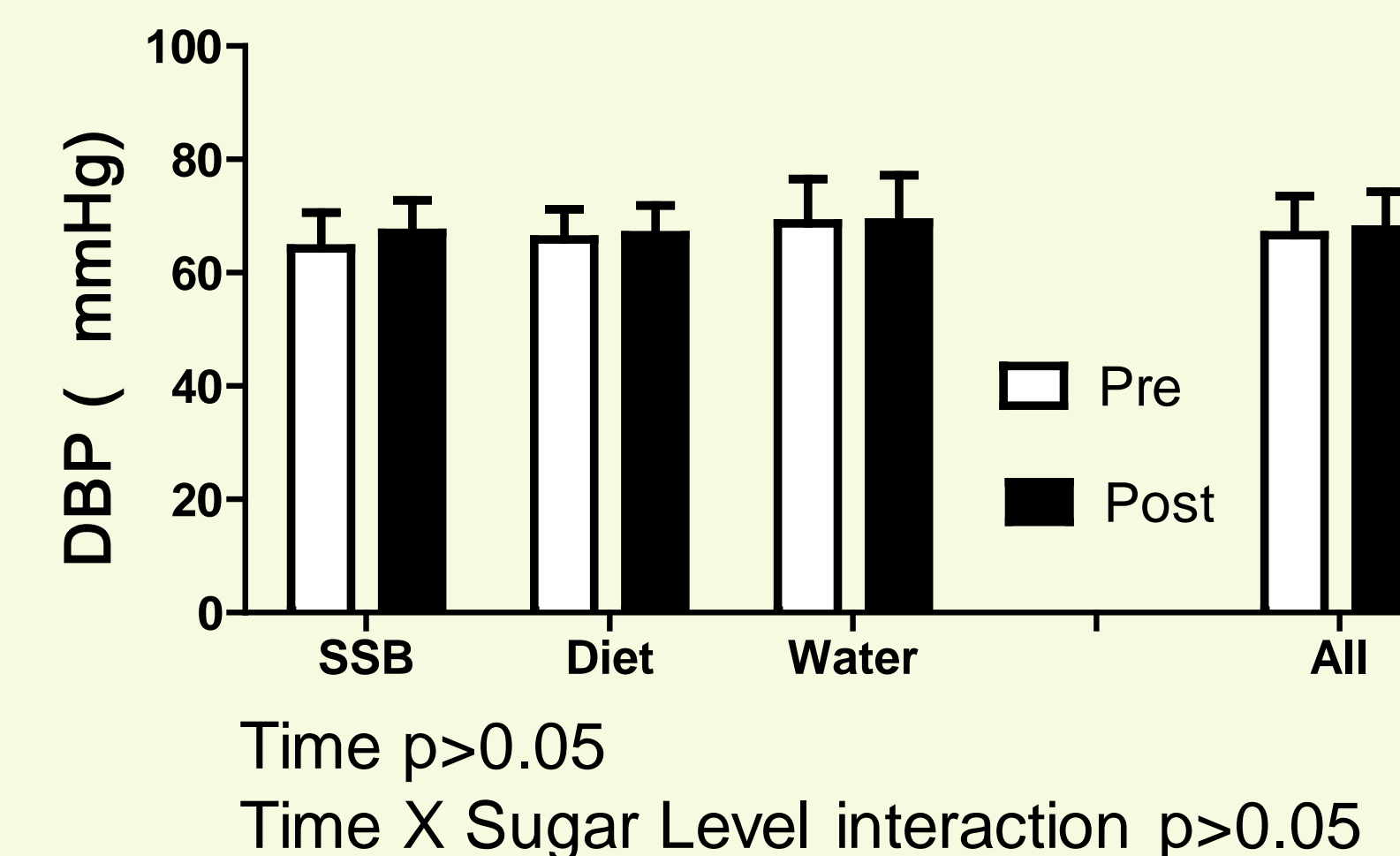
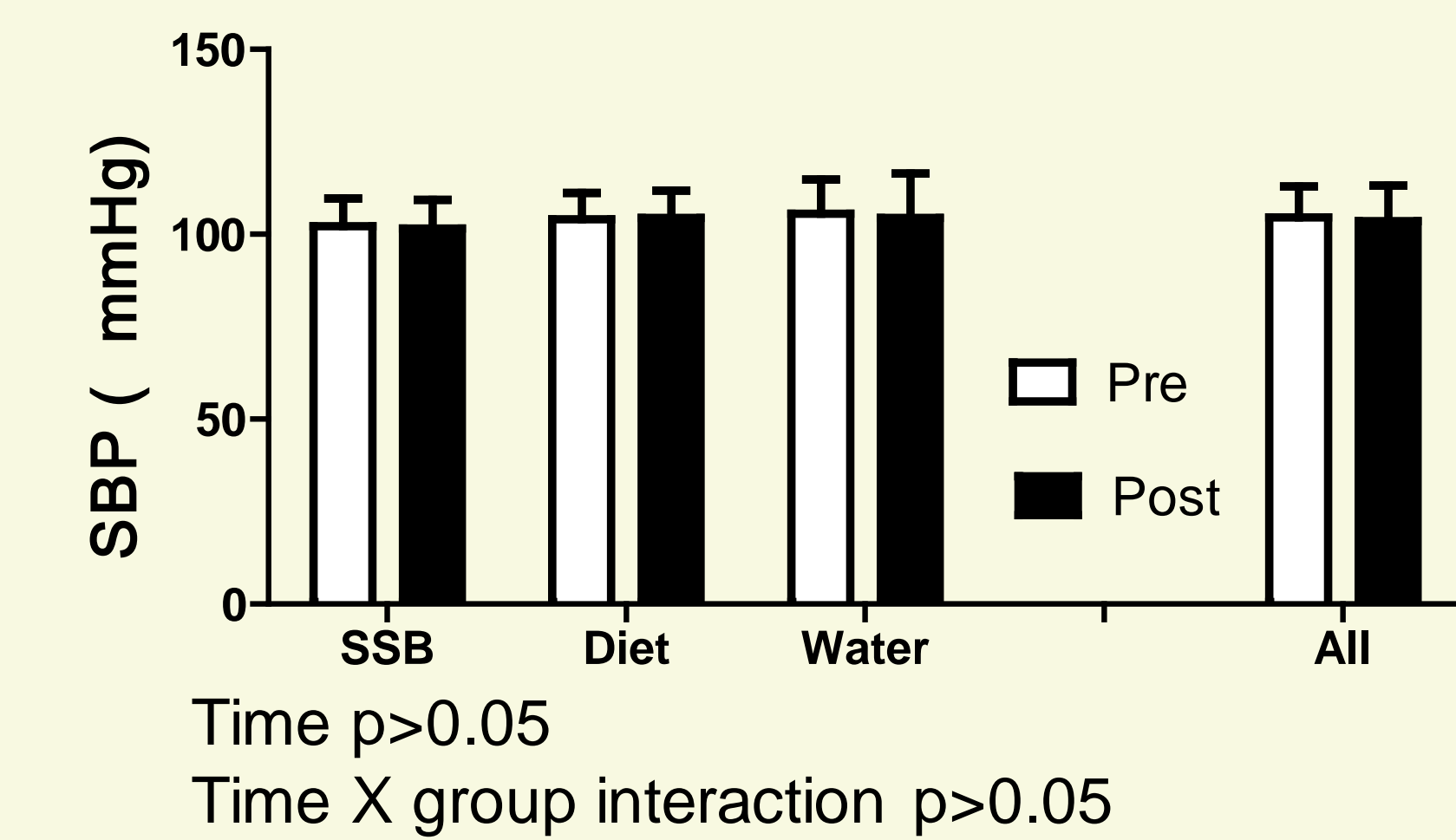
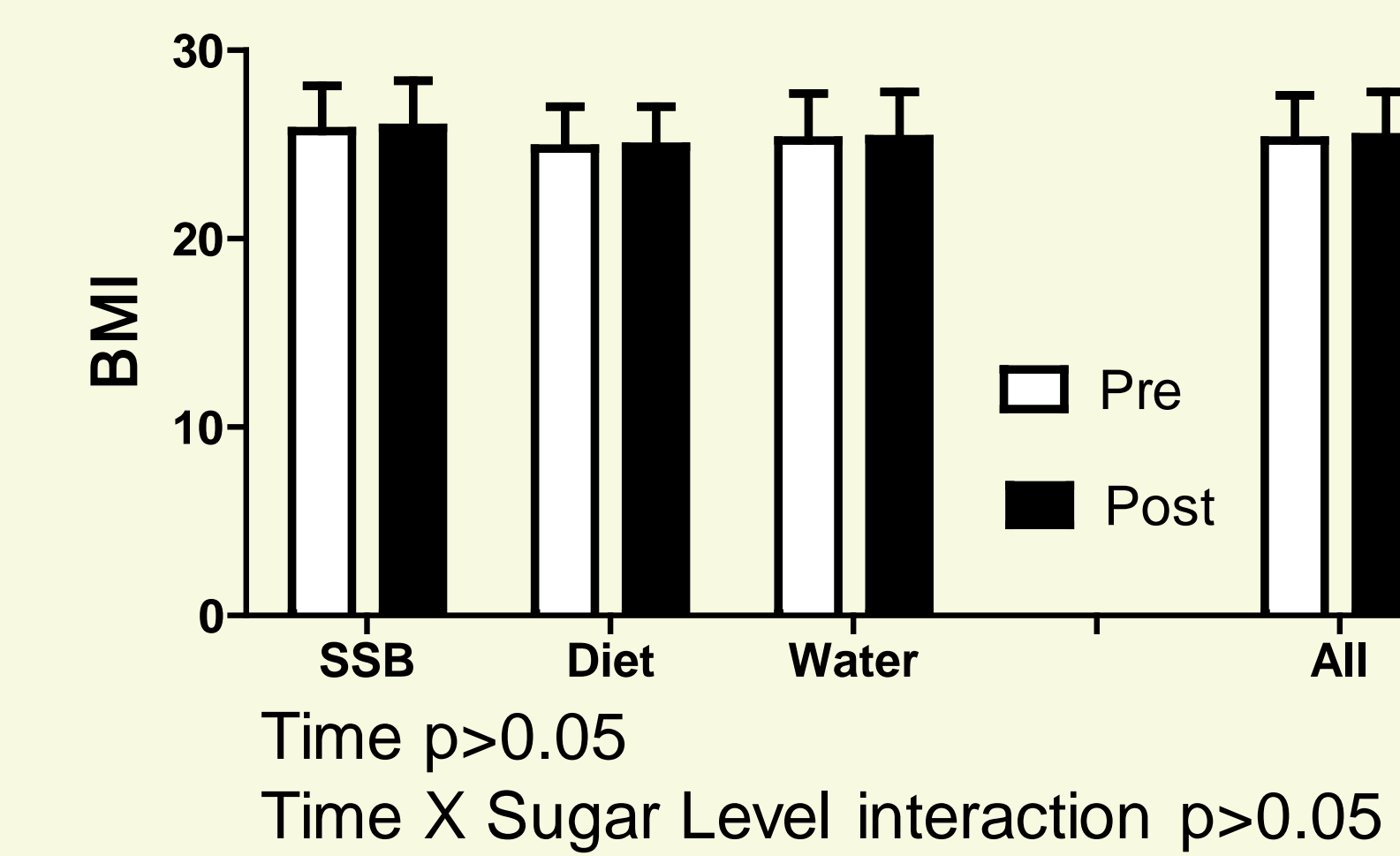
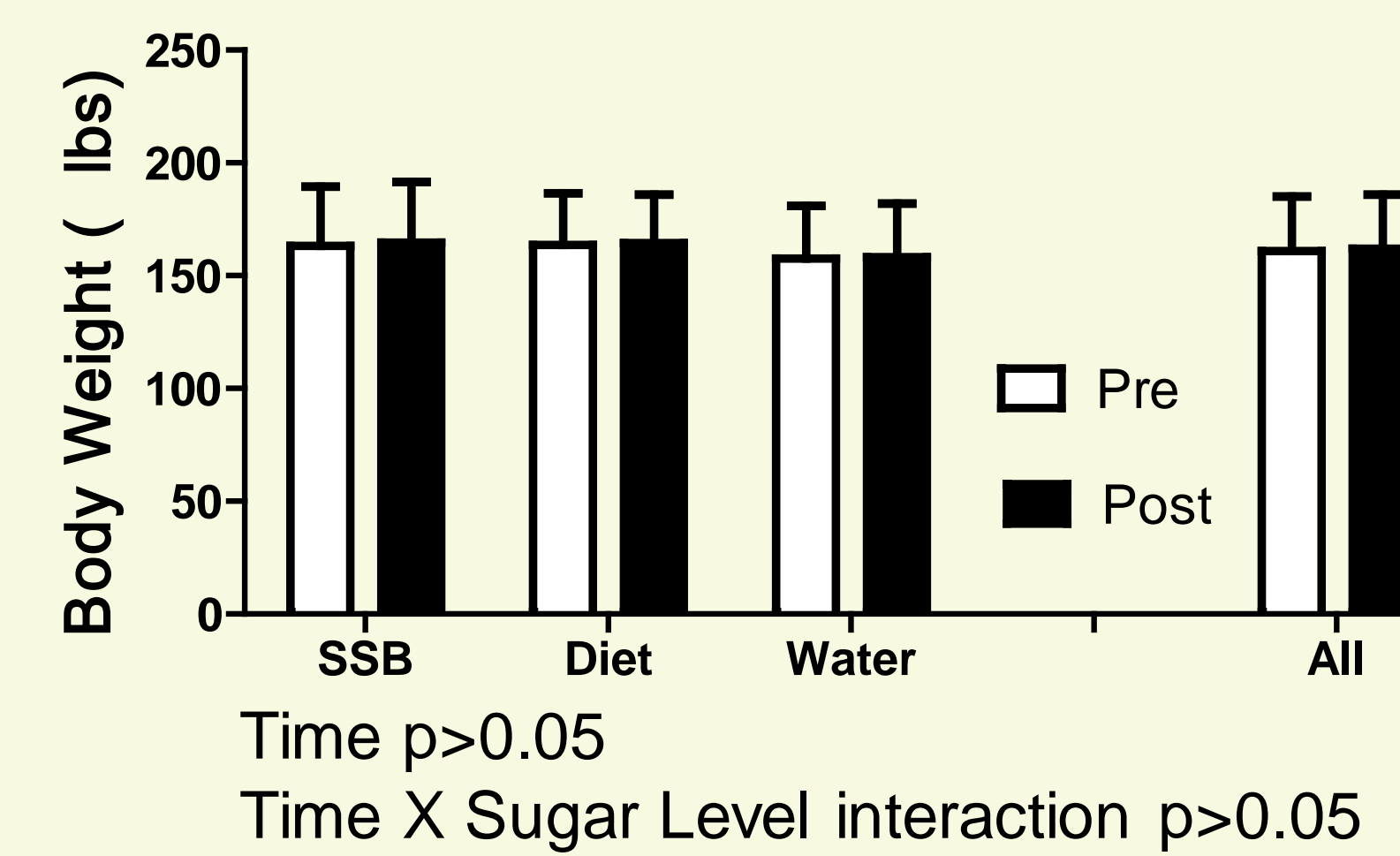
## Introduction

- The potential causes of obesity are numerous, complex and likely interlinked.
- Many factors have been singled out as being uniquely causative, including insufficient physical activity, excess dietary fat or dietary carbohydrate.
- Sugar Sweetened Beverages (SSB), as a significant source of sugar in the American diet, is one such factor.
- Some epidemiologic studies have associated diet beverages with weight gain while others have not.
- The recently released Dietary Guidelines Advisory Committee recommended reductions in SSBs and cautioned against substituting them with diet beverages while advocating water.
- However, there is a paucity of longitudinal data on the effects of SSBs and diet beverages when consumed as part of a balanced diet on body composition.

## Methods

- This was a 6 month study that included seventy-one apparently healthy normal weight or overweight, normotensive and normoglycemic individuals
  - Males = 37, Females = 34
  - Mean age 32.8 ± 8.6 years
- All participants were randomly assigned to one of three groups:
  - 1) SSB,
  - 2) diet beverage, or
  - 3) water.
- Participants followed the ADA exchange diet daily for 6 months and incorporated 2 servings a day (average American level of consumption) of the required beverages.
- Compliance with the diet was initially checked weekly and gradually performed less frequently as the participant became more comfortable with the requirements.
- All measures were performed in a fasting state before the intervention and after completion of the 6 month intervention.
- Data were analyzed using Analysis of Variance with Repeated Measures.
- Significant F ratios were probed by
  - 1) performing paired sample t-tests on each group individually
  - 2) Calculating the change from baseline (post-pre) and using the value as the dependent variable in a one way ANOVA and using Tukey's HSD as a posthoc to make pairwise comparisons.
- Statistical analysis was performed using SPSS V 18.0.

## Results



## Discussion & Conclusion

- These data suggest that there is no effect of either SSB or Diet beverages on the majority of cardiovascular risk factors when consumed as part of a balanced diet.
- What changes did occur were small and mixed.

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