

# Lifestyle Intervention for Reduction of Risk Factors for the Metabolic Syndrome

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## 1 Introduction

- Cardiovascular Disease (CVD) is the leading cause of death in the United States.
- The presence of the Metabolic Syndrome (met) substantially increases the possibility of developing CVD.
- A key heart disease prevention strategy is therefore to lower risk factors for met.
- Regular exercise of moderate intensity has been shown to induce favorable changes in some aspects of met, but limited data exists on the effect of exercise when combined with hypocaloric diets in free living settings

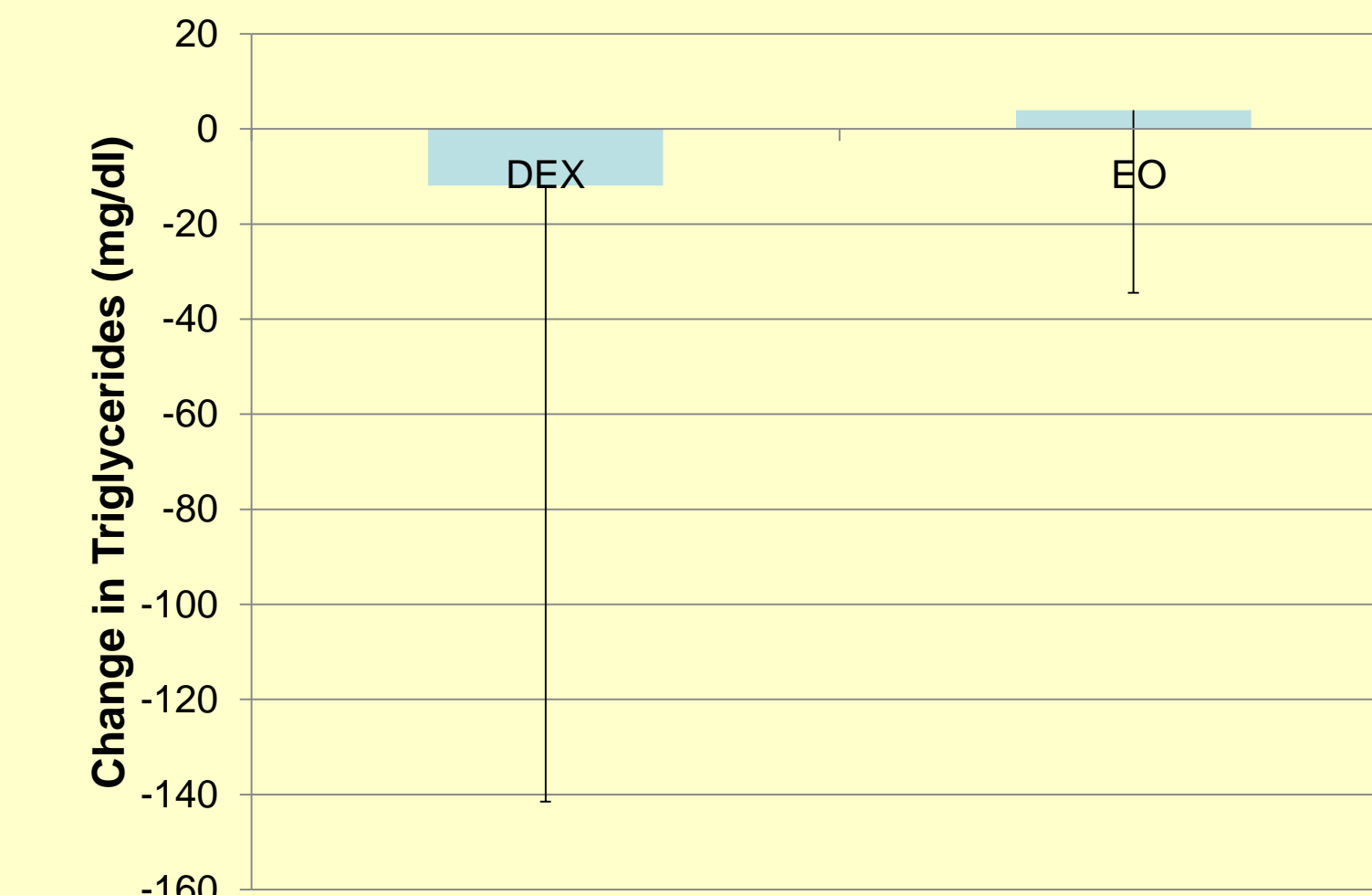
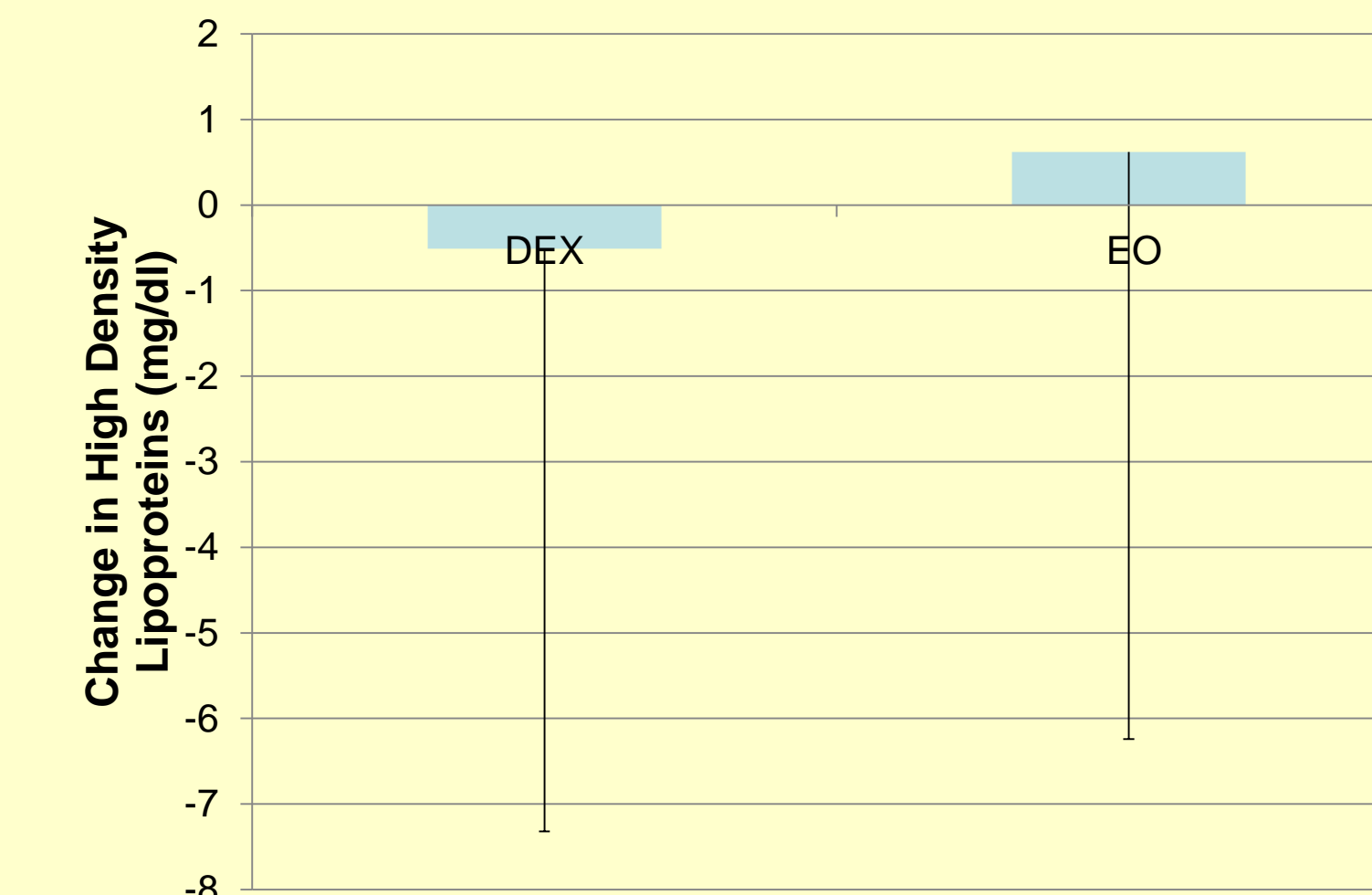
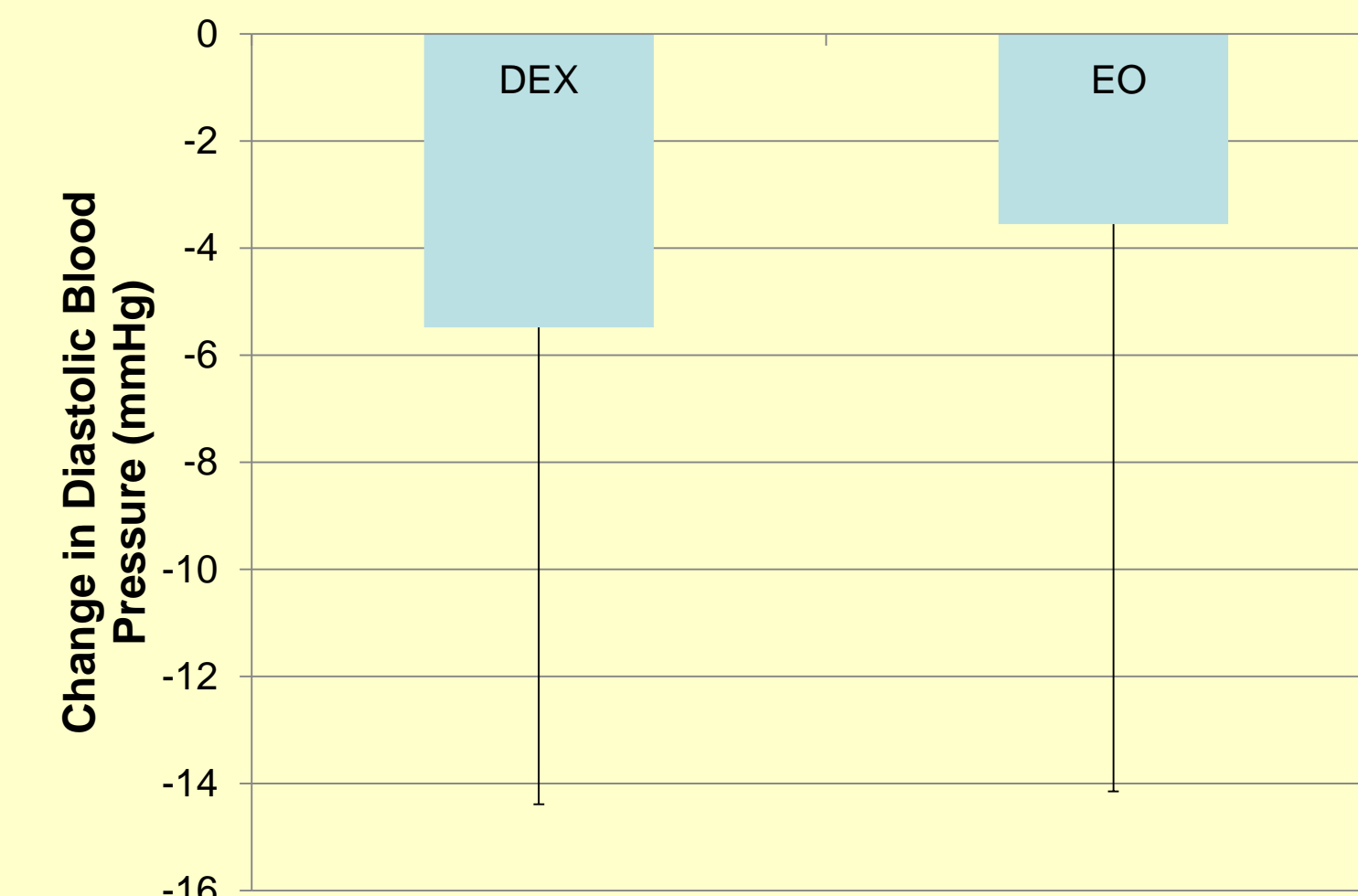
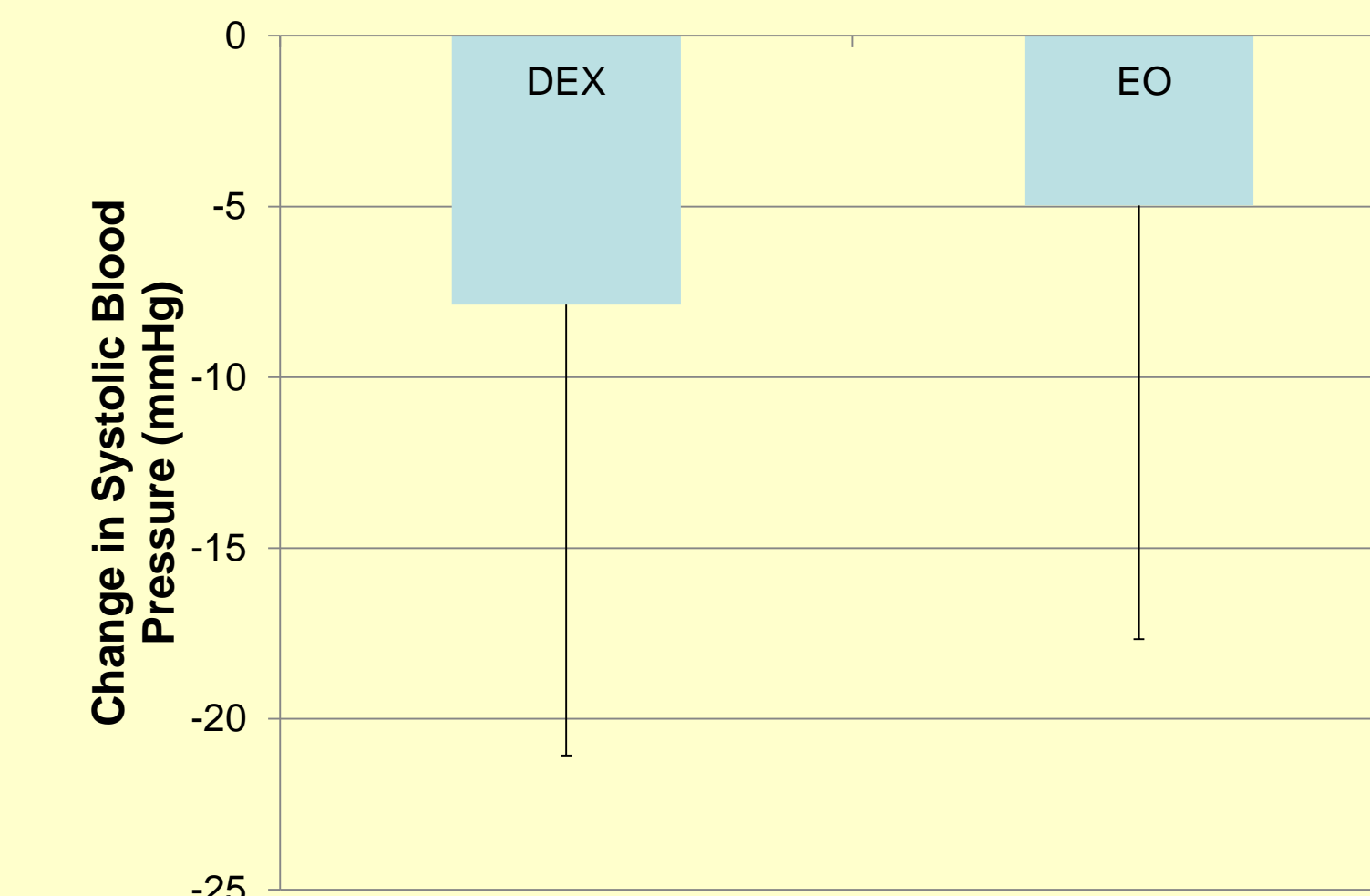
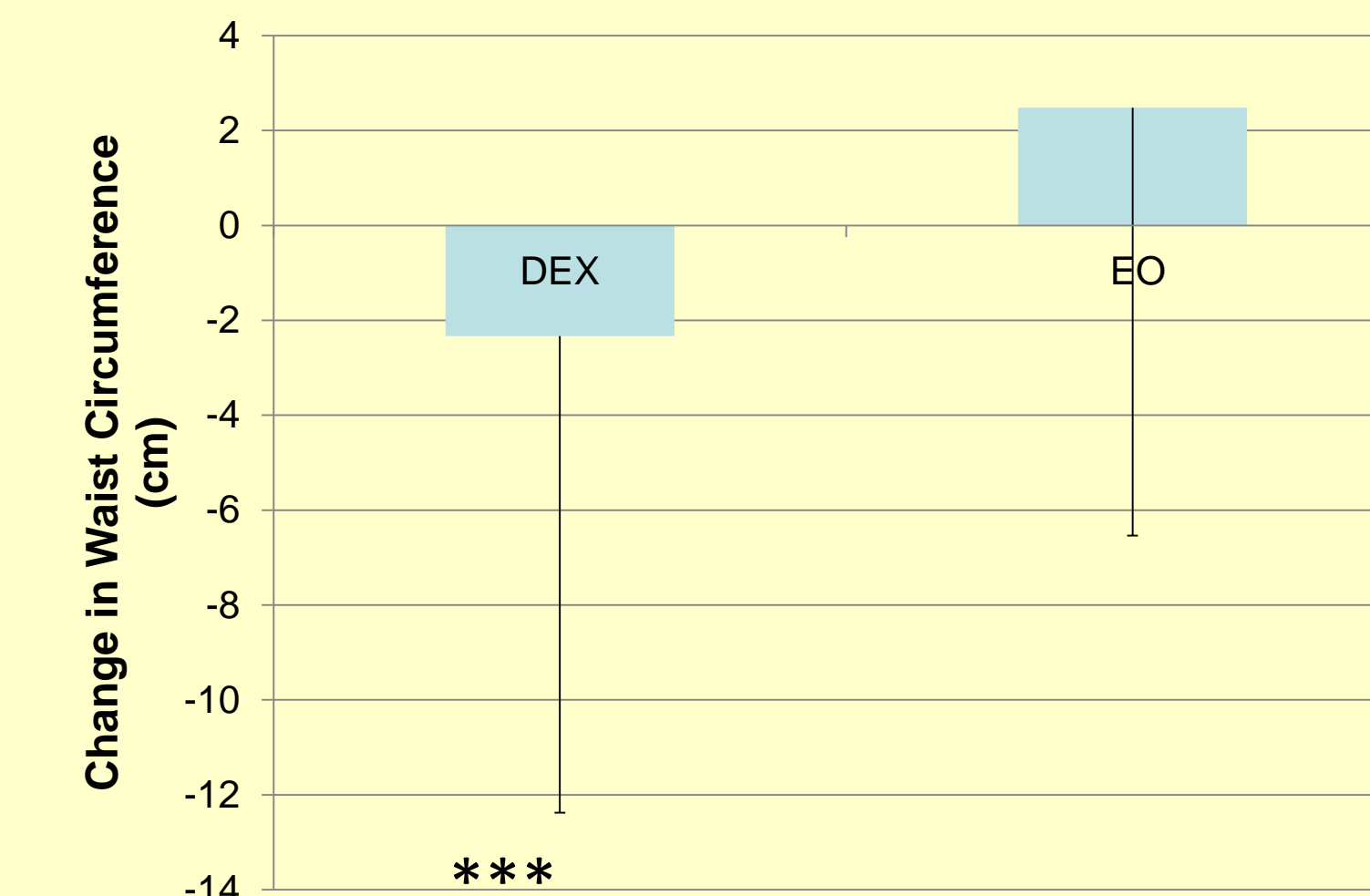
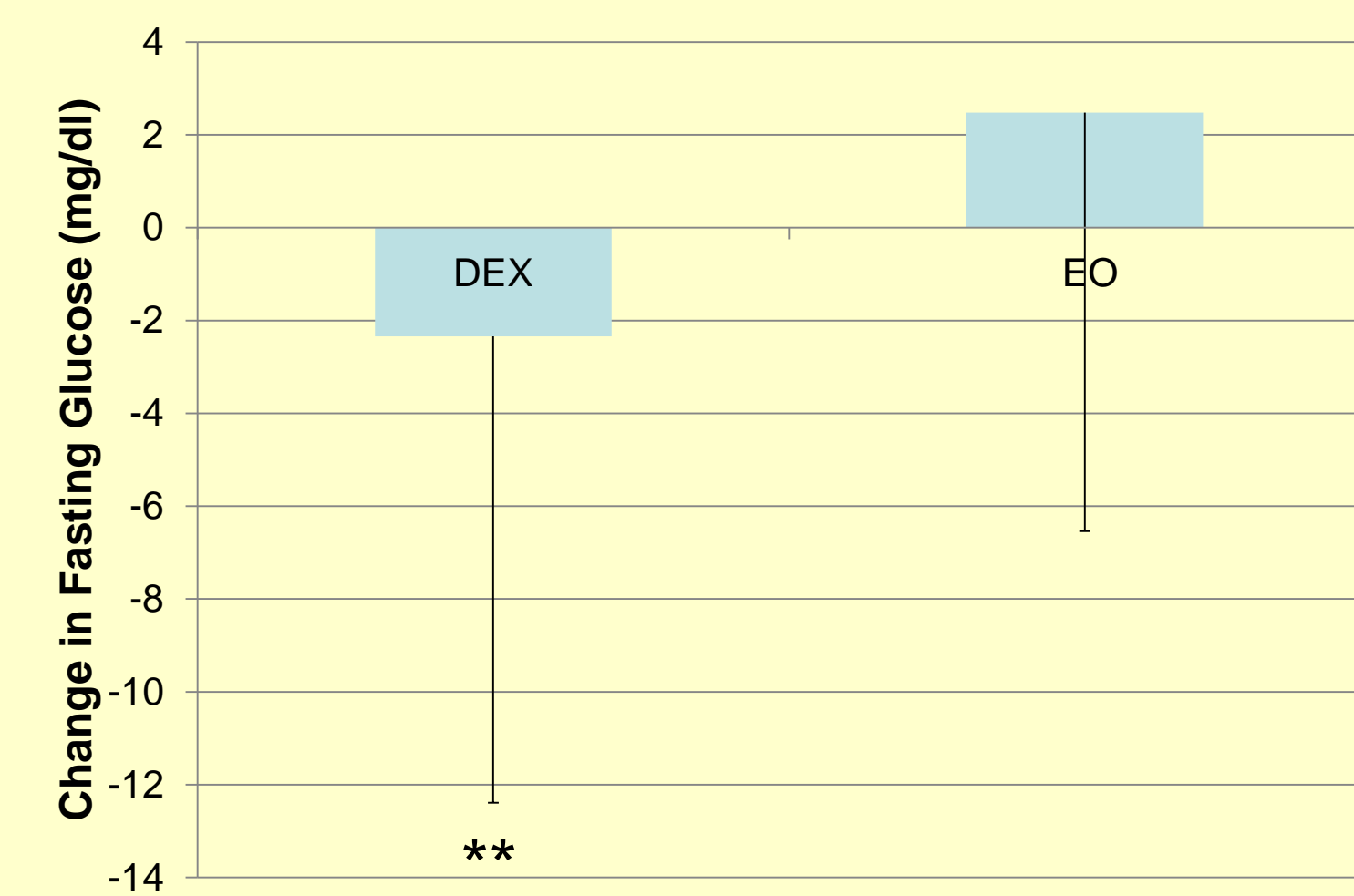
## 2 Purpose

- To examine the effects of a DASH-Style diet on components of the metabolic syndrome in comparison to an exercise only control group.

## 3 Methods

- We examined the changes on body composition in 142 participants (BMI 22-40) for 24 weeks.
  - DASH-Style diet and exercise (DS; n=77)
  - Exercise only (EO, n=65)
- Both groups received an exercise prescription recommending a minimum of:
  - moderate physical activity
  - 15 minutes per session, progressing to 45 minutes
  - 3 days per week progressing to 4 days per week by week 12.
- They were provided support via once weekly meetings with an exercise physiologist for 12 weeks and biweekly thereafter.
- The DS group also followed a standardized dietary approach consisting of:
  - a reduced calorie eating pattern
  - Incorporation of one commercially prepared healthy frozen meal and one other selected grocery item each day
  - dietary counseling from a dietician once weekly for 12 weeks and biweekly thereafter.

## 4 Results



\*\* different than EO, p<0.01, \*\*\* different than EO, p<0.001

## 5 Discussion & Conclusion

These data suggest that a structured diet plan that incorporates prepared convenience meals can successfully improve risk factors for the metabolic syndrome and potentially reduces the risk for cardiovascular disease.

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