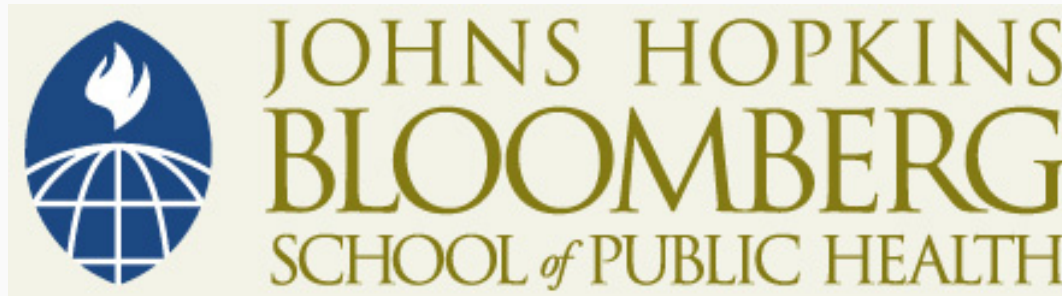


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JOHNS HOPKINS  
BLOOMBERG  
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## Section B

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DASH-Style Diets

**D**ietary  
**A**pproaches to  
**S**top  
**H**ypertension



# Background

- Multiple dietary factors affect blood pressure
  - Persuasive evidence on salt, weight, and alcohol
- Other nutrients might also lower blood pressure, based on evidence from observational studies
- Candidate nutrients
  - Minerals: potassium, magnesium, calcium
  - Macronutrients: total fat, saturated fat, unsaturated fats, protein
  - Fiber and cholesterol

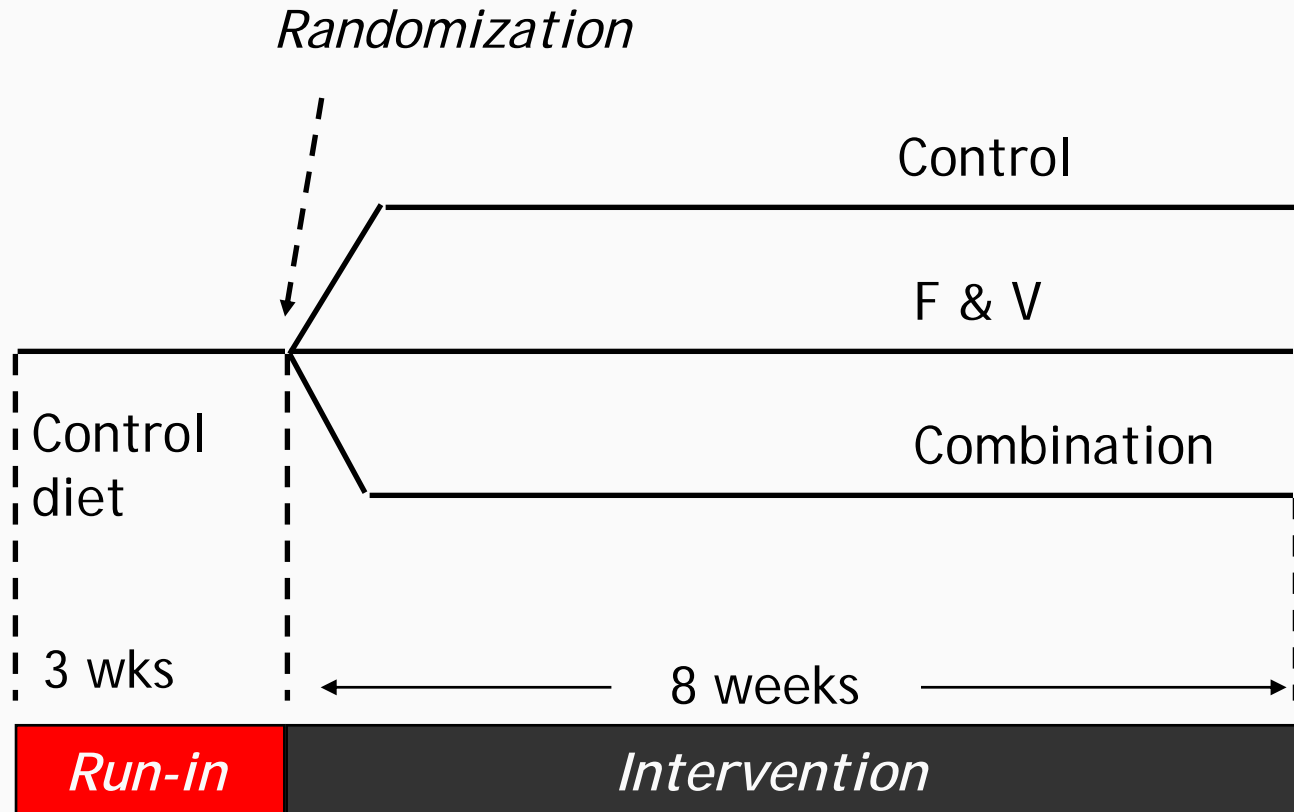
# Objective

- To determine the effects on blood pressure of modifying whole dietary patterns, while controlling known determinants of blood pressure

# Methods

- Randomized outpatient feeding study
- 459 participants with diastolic blood pressure 80-95 and systolic blood pressure less than 160
- Two-thirds of participants from a racial or ethnic minority
- 11 weeks of feeding (3 weeks of run-in and 8 weeks of intervention)
- Sodium intake was similar in all diets
- Weight was held constant

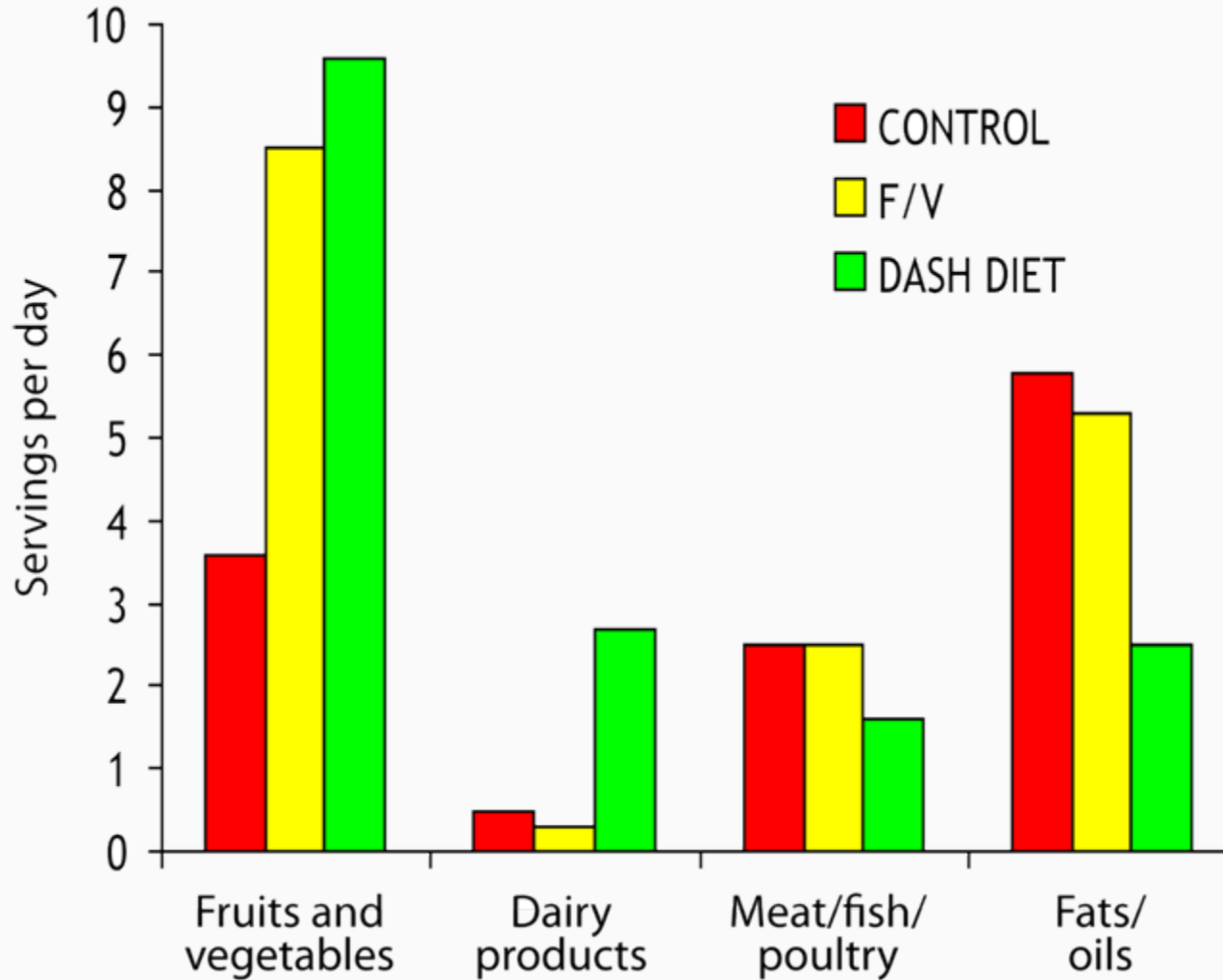
# Run-In and Intervention Periods



# Nutrient Targets by Diet

	Control	F/V	DASH
Fat %	37	37	27
Saturated fat %	16	16	6
CHO %	48	48	55
Protein	15	15	18
Fiber g per day	9	31	31
Potassium	1,700	4,700	4,700
Magnesium	165	500	500
Calcium	450	450	1,240
Sodium g per day	3-3.5	3-3.5	3-3.5

# Servings per Day of Food Groups



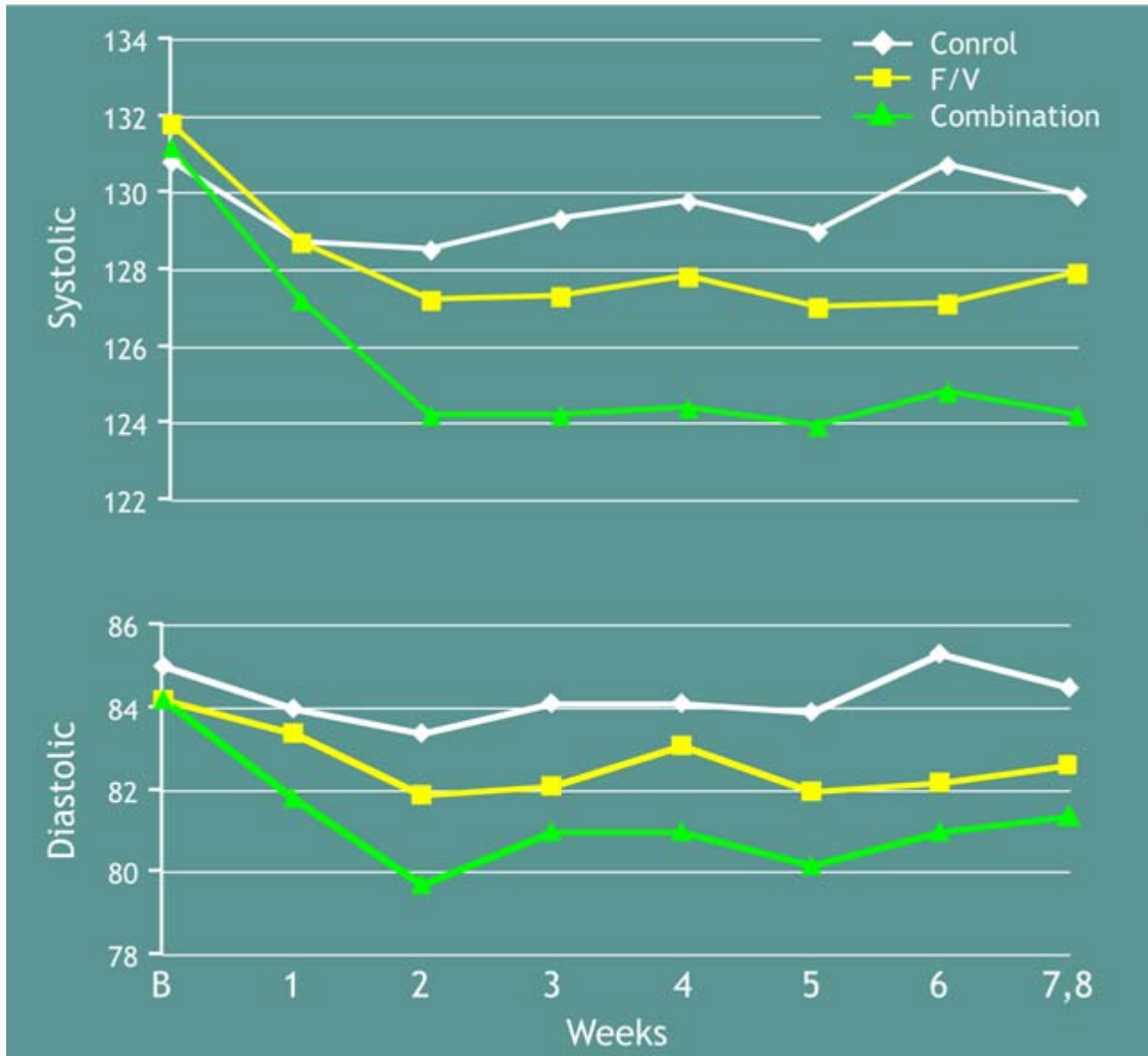
# The DASH Dietary Pattern: Foods

- Emphasizes:
  - Fruits, vegetables, low-fat dairy foods
- Includes:
  - Whole grains, nuts, poultry, fish
- Reduced in:
  - Fats, red meat, sweets, and sugar-containing beverages

# The DASH Diet

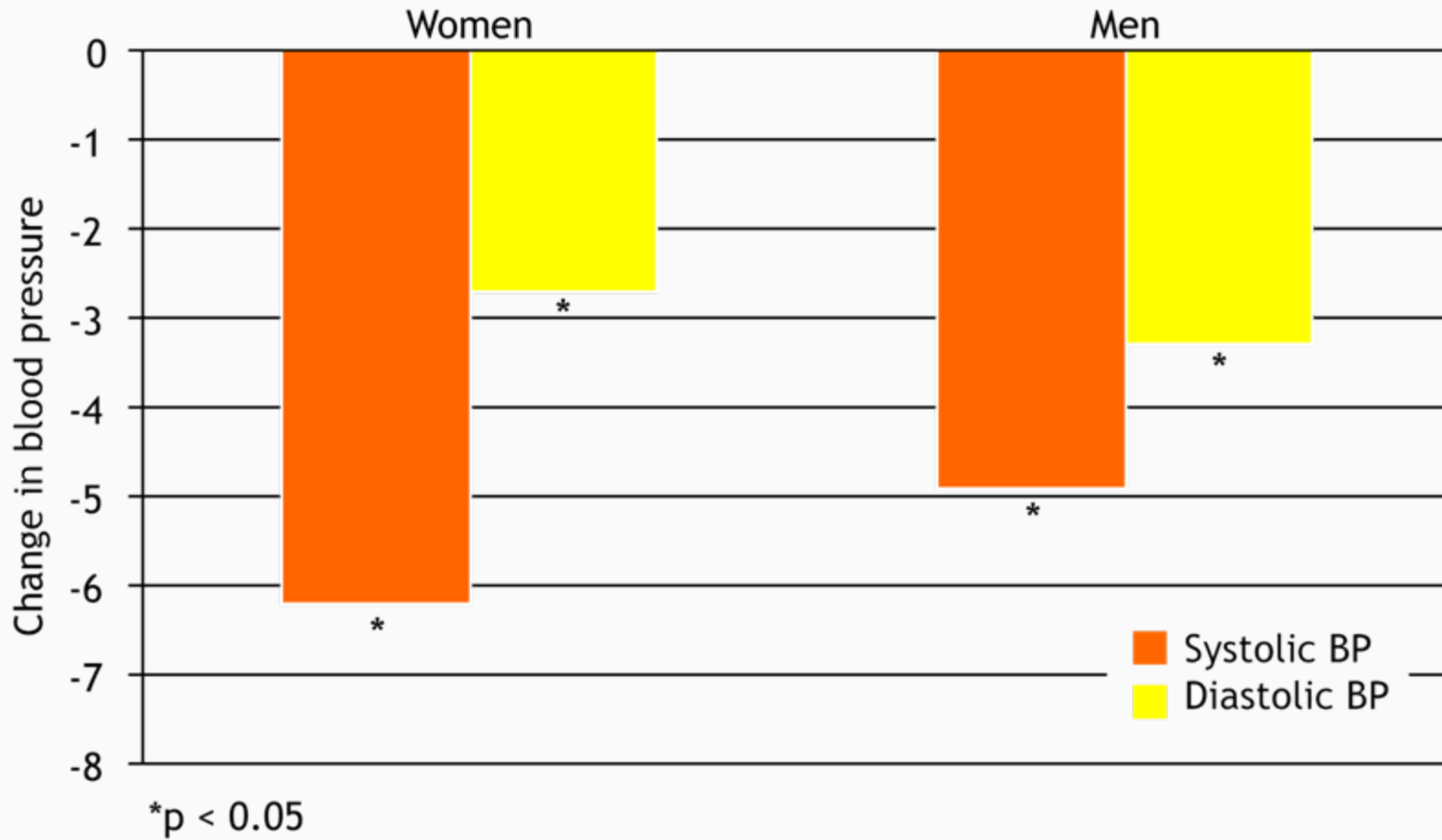


# Weekly BP by Diet During Intervention Feeding

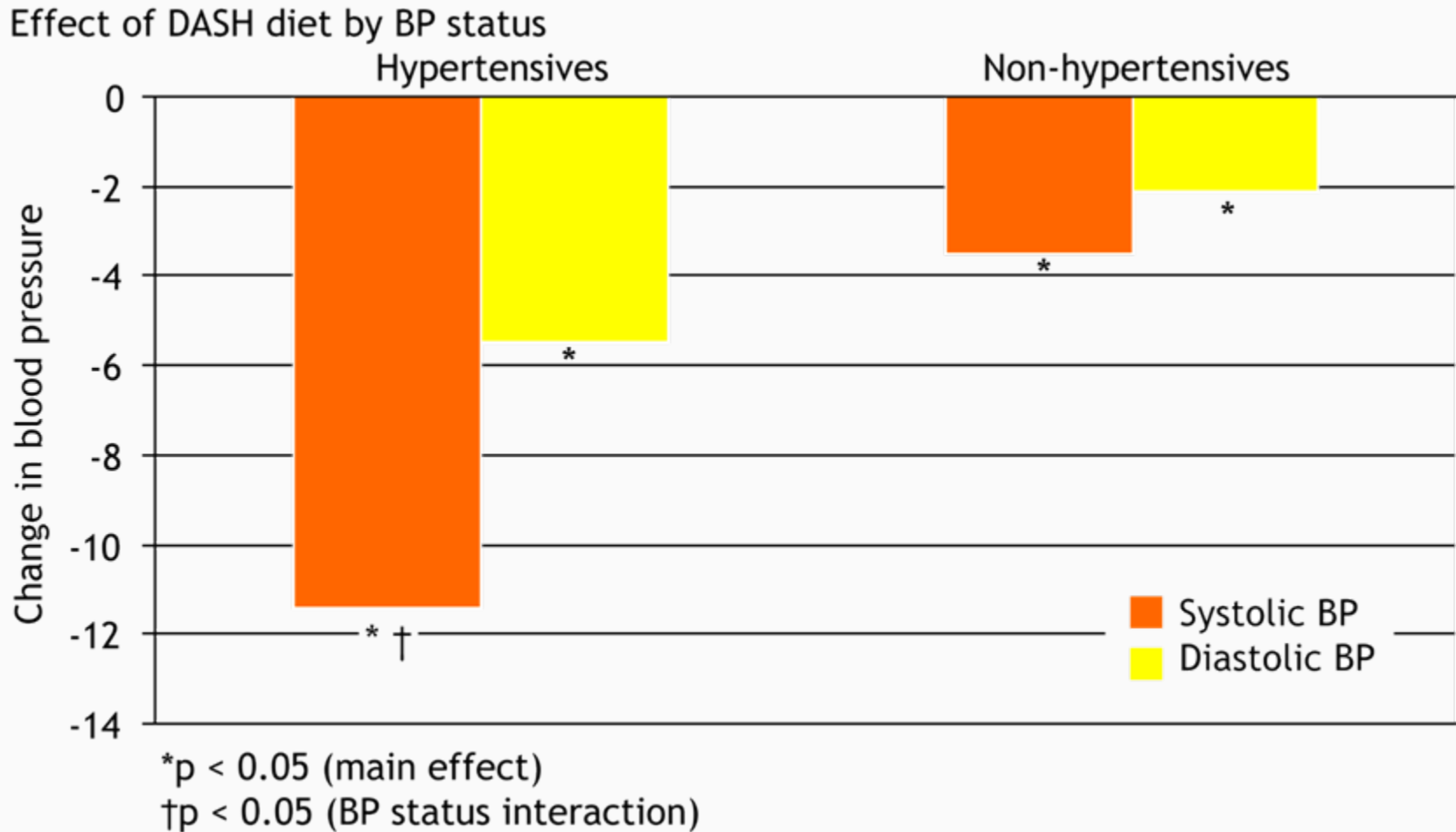


# Effect of DASH by Gender

Effect of DASH diet by gender

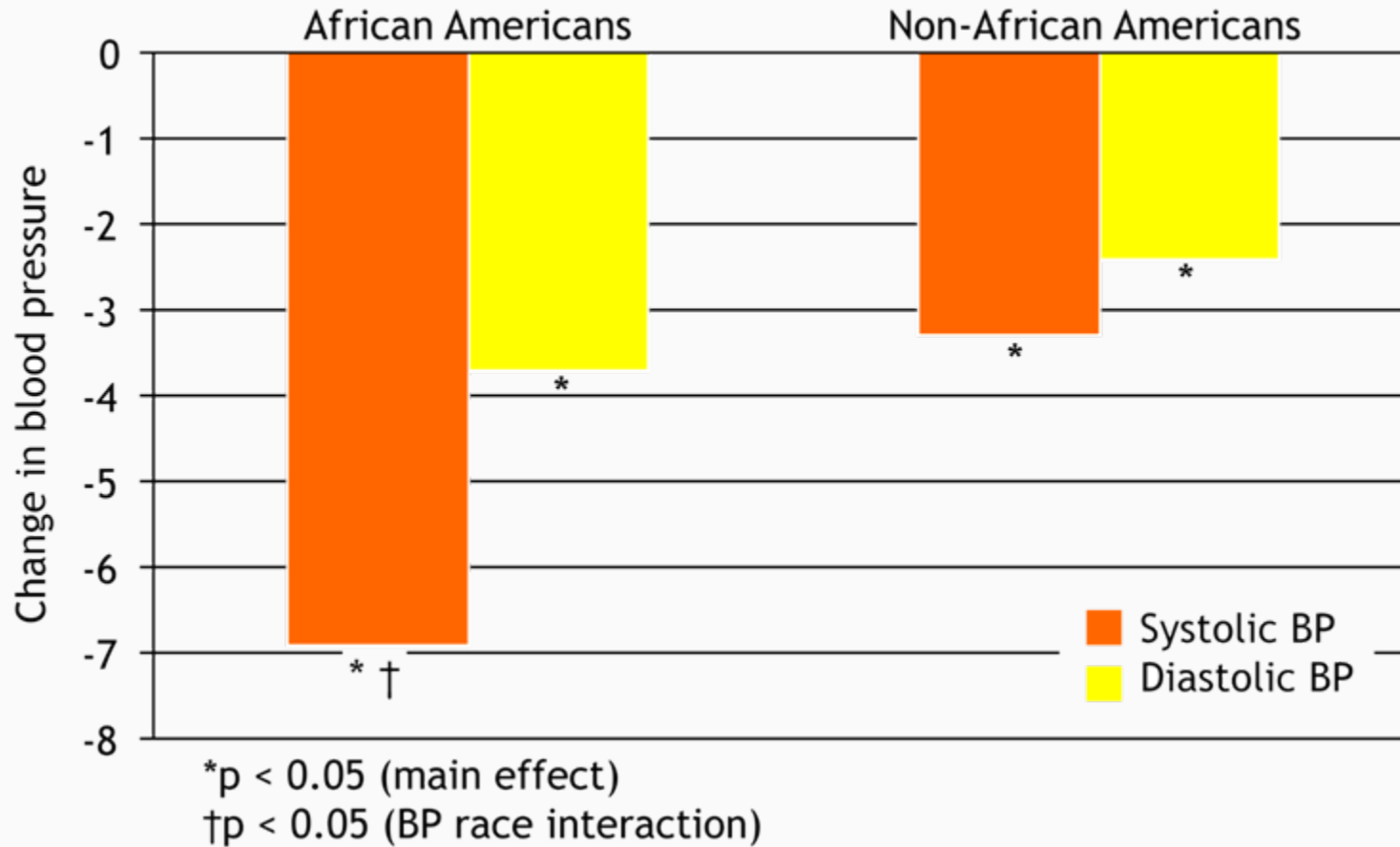


# Effect of DASH Diet by BP Status



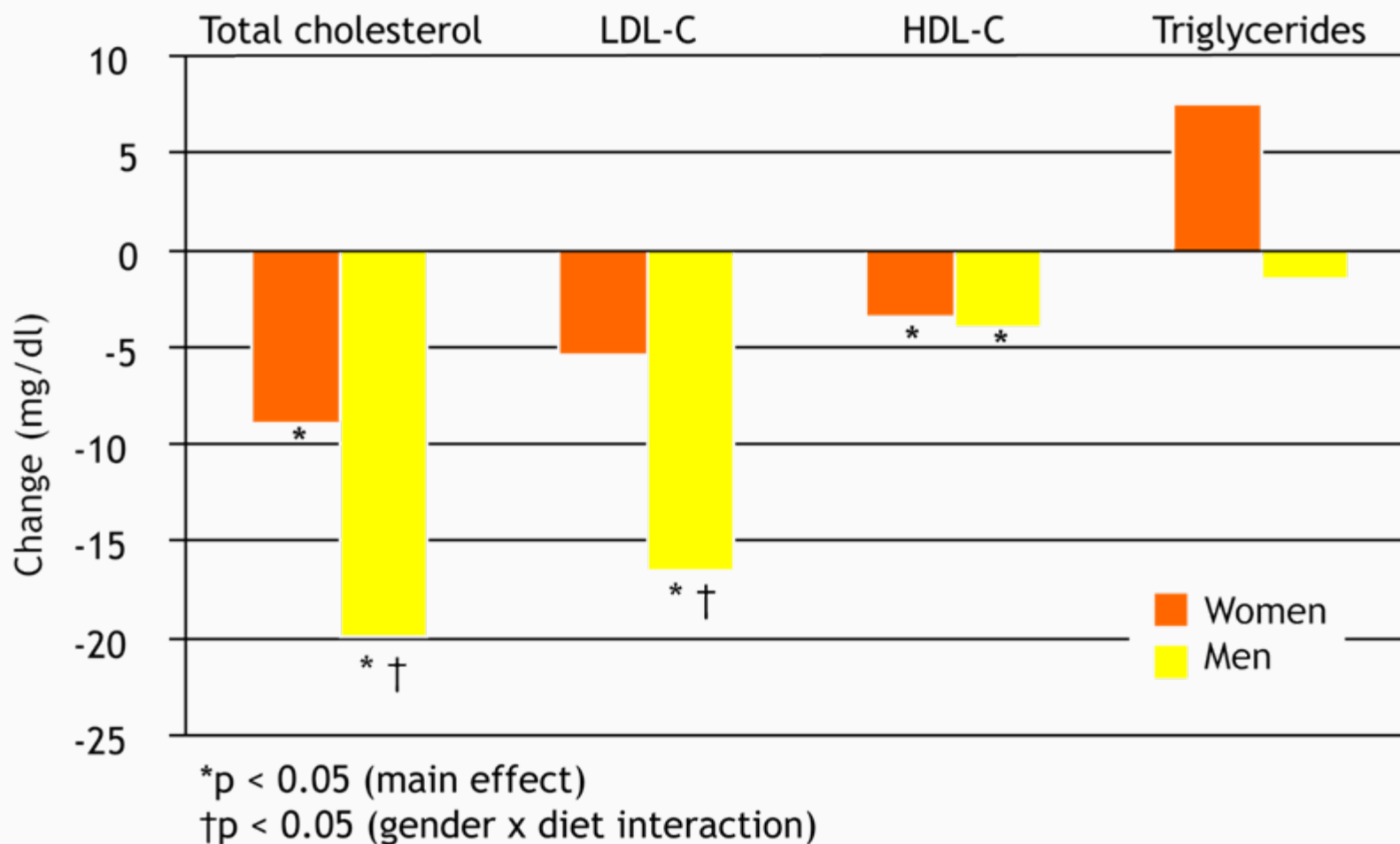
# Effect of DASH Diet by Race

Effect of DASH diet by race



# Effect of DASH vs. Control Diet on Lipids by Gender

Effect of DASH vs. control diet on lipids by gender



# Summary

- DASH diet
  - Lowers blood pressure
    - ▶ Especially prominent effects in hypertensives and African Americans
  - Lowers LDL cholesterol
  - Reduces *in vivo* lipid peroxidation
  - Reduces homocysteine
  - Should reduce coronary heart disease (CHD) risk by about 15 percent