



Improved serum cholesterol concentration following a structured diet plan incorporating healthy convenient prepared meals

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Introduction

- Hypercholesterolemia is known to be a significant risk factor of coronary artery disease
- It is often accompanied by other lipid abnormalities including high triglycerides and low HDL.
- Interventions designed to improve the overall lipid profile are desirable.

Purpose

- To examine the effects of a DASH-Style diet on cardiovascular risk factors (BMI 22-40) for 24 weeks compared to an exercise only control group.

Methods

- We examined the changes on body composition in 131 participants (BMI 22-40) for 24 weeks.
 - DASH-Style diet and exercise (DS; n=71)
 - Exercise only (EO, 60)
- 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.

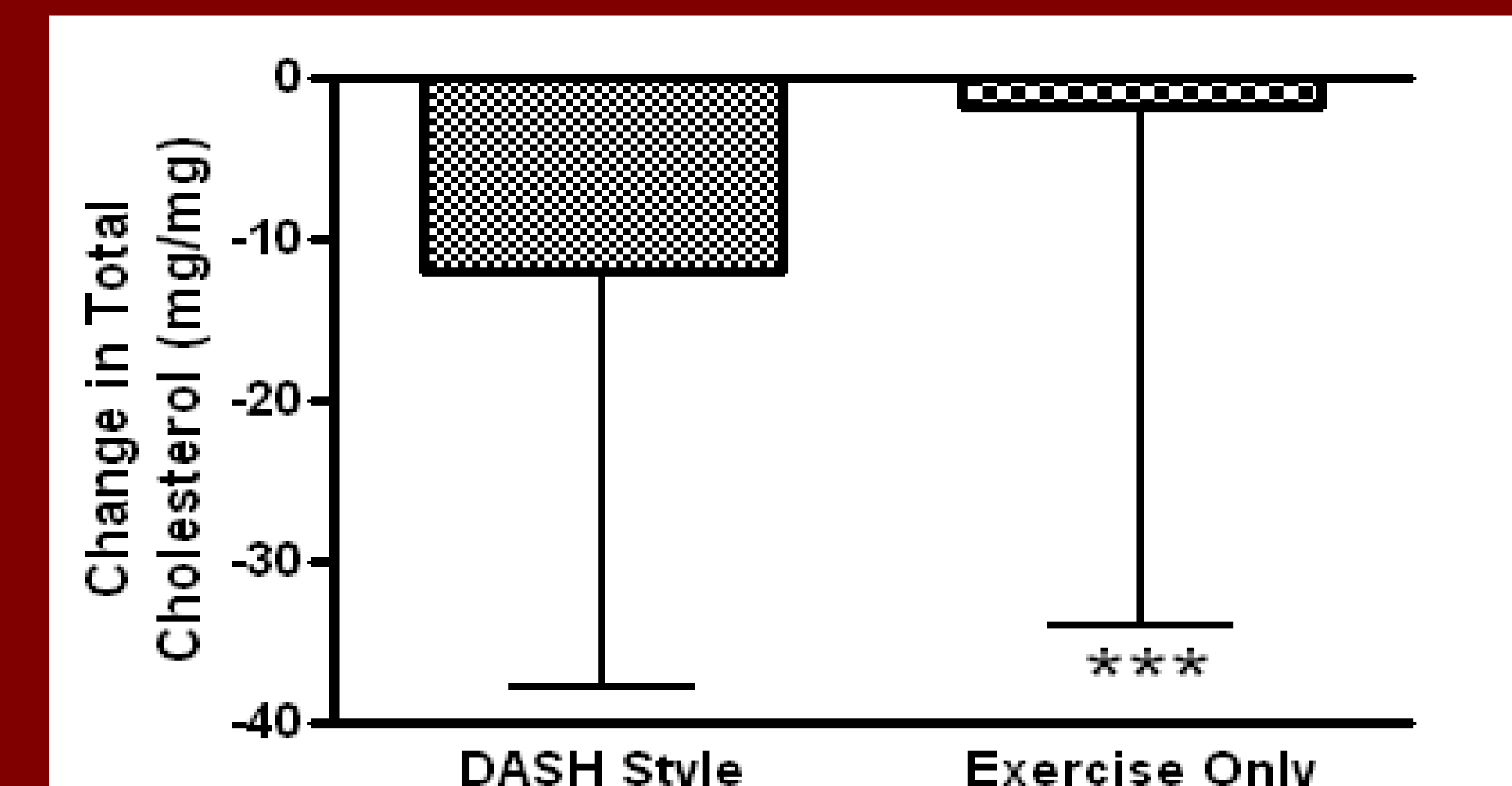
Results

After 24 weeks, the DS group reduced body weight to a significantly greater degree than EO (-17.70 ± 10.11 vs -6.23 ± 8.12 lbs, p<0.001).

		HC	EO	Interaction p
Cholesterol (mg/dl)	Baseline	210.13 ± 38.15	197.28 ± 43.66	0.045
	Week 24	198.11 ± 35.67††	195.53 ± 46.22	
Triglycerides (mg/dl)	Baseline	143.11 ± 88.08	104.77 ± 48.95	0.361
	Week 24	131.20 ± 157.47	108.75 ± 51.88	
High Density Lipoprotein (mg/dl)	Baseline	53.30 ± 13.12	52.28 ± 12.62	0.350
	Week 24	52.79 ± 12.83	52.90 ± 13.47	
Low Density Lipoprotein (mg/dl)	Baseline	129.04 ± 35.12	124.03 ± 40.97	0.278
	Week 24	121.00 ± 30.33†	120.92 ± 40.67†	

† different than baseline, p<0.05

†† different than baseline, p<0.01



*** different than DASH Style, p<0.001

Conclusion

- These data suggest that a structured diet plan that incorporates healthy prepared meals can successfully improve measures of an atherogenic lipid profile and potentially reduce the risk for cardiovascular disease.

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