

INTRODUCTION

- Epidemiological findings indicate that cardiovascular disease (CVD) remains the leading cause of death in the US and worldwide.
- Reduced vascular function/health, indexed as brachial-artery macrovascular and forearm microvascular reactivity are predictive of future cardiovascular disease (CVD) risk and related events.
- Reduced vascular function/health is multifactorial but is related to increased systemic inflammation and oxidative stress.
- Previous research has reported that diets, beverages, and/or supplements containing high antioxidant, polyphenol, and anti-inflammatory properties benefit various physiological responses including peripheral vascular function and other indices of overall cardiovascular health.
- Goode Health LLC provides commercially available products that are high in healthy ingredients including fiber, protein, polyphenols and other sources known to contribute to beneficial antioxidant and anti-inflammatory status.

PURPOSE

This study tested the hypothesis that 14-days of consumption of Goode Health LLC Moroccan Chocolate Blend, would improve well-validated indices of peripheral micro and macrovascular function in otherwise healthy adults.

METHODS

Participants:

- Six young healthy adults (4 males; age: 42±14 years, BMI: 32±7 kgm⁻²) participated in this preliminary study.

Measurements and Instrumentation:

- All measures were assessed at baseline and after 14-days of Goode Health LLC Moroccan Chocolate Blend beverage consumption.
- Post-occlusive brachial artery flow-mediated dilation (FMD; macrovascular function) and forearm reactive hyperemia (indexed as peak blood velocity; microvascular function) were assessed in the supine position (Fig 1).
- Goode Health beverage consumption was accomplished by adding ~28g of the Moroccan Chocolate Blend powder mix to 16oz of water – twice daily.

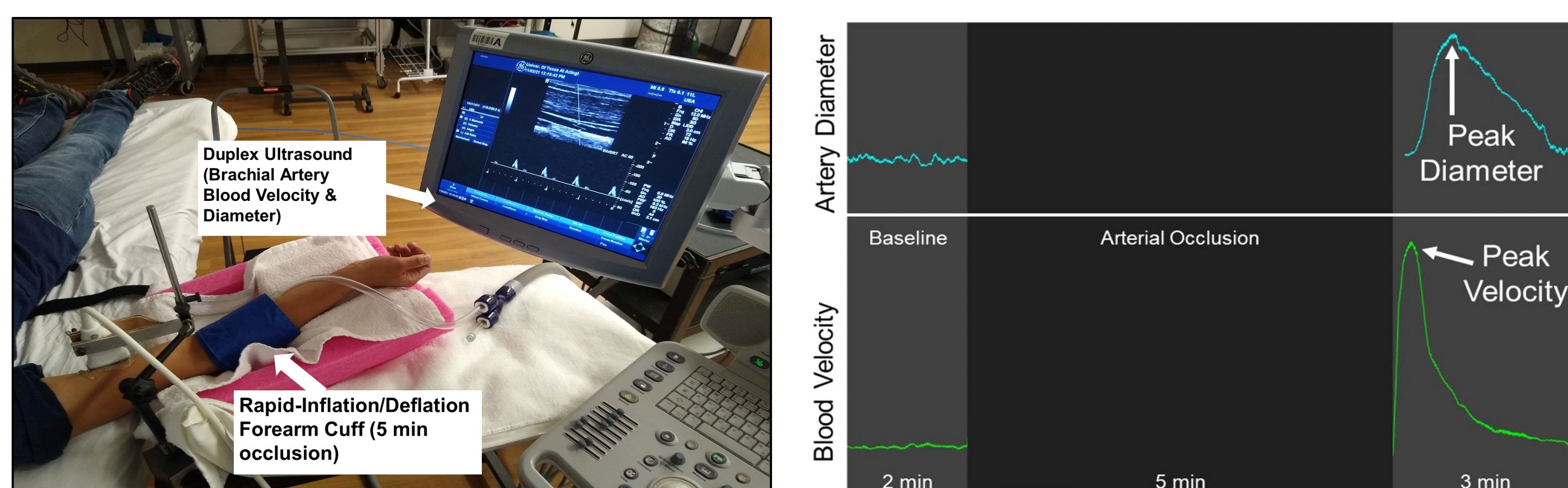


Figure 1. Experimental setup (left) and representative tracings (right) for peripheral vascular function testing.

RESULTS

Nutrition Facts

25 Servings per container

Serving Size 1 Scoop (28.8g)

Amount Per Serving **Calories 90**

% Daily Value *

Total Fat	2.5g	3%
Saturated Fat	0g	0%
Trans Fat	0g	
Cholesterol	0mg	0%
Sodium	40mg	2%
Total Carbohydrate	7g	3%
Dietary Fiber	5g	18%
Total Sugars	0g	
Includes 0g Added Sugars		0%
Protein	14g	28%
Calcium	600mg	45%
Iron	2mg	10%
Potas.	870mg	20%
Vitamin A (ret eq)	420ug	45%
Vitamin D	18.6mcg	90%
Vitamin E	6.9mg	45%
Folates (B ₉) Total	195ug	50%
Vitamin C	69mg	80%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.



Figure 2. Nutritional and product information for Goode Health LLC Moroccan Chocolate Blend beverage.

	Pre-Beverage Consumption	2-Weeks Post-Beverage Consumption	P Value
Total Cholesterol (mg/dl)	182±30	155±30	P=0.10
VLDL (mg/dl)	14±5	12±4	P=0.08
LDL (mg/dl)	121±24	98±25	P=0.13
Triglycerides (mg/dl)	77±30	58±26	P=0.01

Table. Lipid profile after 2-weeks of Goode Health LLC Moroccan Chocolate Blend Beverage Consumption (twice daily). There was a trend towards improvement in total cholesterol, VLDL, and LDL, whereas triglycerides were significantly reduced following 2-weeks of daily beverage consumption. VLDL: Very low-density lipoprotein; LDL: Low-density lipoprotein.

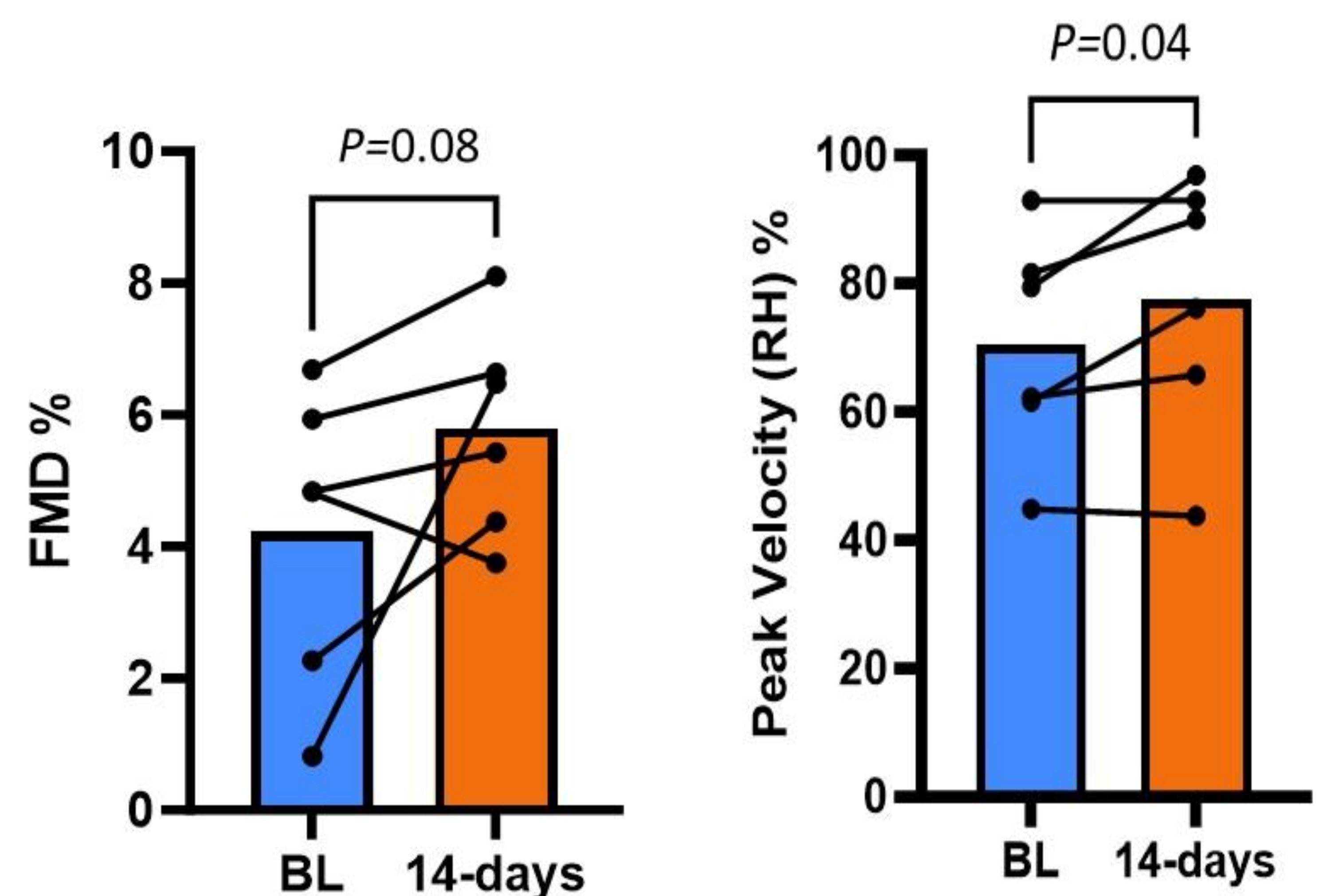


Figure 3. Brachial Artery Flow-Mediated Dilation (index of macrovascular function) Following 14-days of Keto5 XOGenius Supplementation.

Figure 4. Brachial Artery Peak Velocity (index for microvascular function) Following 14-days of Keto5 XOGenius Supplementation.

CONCLUSIONS

- These preliminary data indicate a positive effect of Goode Health LLC Moroccan Chocolate Blend supplementation on peripheral macro and microvascular function/health and lipid profile.
- Future Studies will continue to expand upon these findings in a larger cohort of individuals.