DASH eating pattern is associated with favorable left ventricular function in the multi-ethnic study of atherosclerosis.

OBJECTIVE: Potential associations between consistency with the Dietary Approaches to Stop Hypertension (DASH) diet and preclinical stages of heart failure (HF) in a large multiethnic cohort have not been evaluated. This study sought to determine the cross-sectional relationship between the DASH eating pattern and left ventricular (LV) function in the Multi-Ethnic Study of Atherosclerosis (MESA).

DESIGN: A total of 4506 men and women from four ethnic groups (40% white, 24% African American, 22% Hispanic American, and 14% Chinese American) aged 45-84 years and free of clinical cardiovascular disease (CVD) were studied. Diet was assessed using a validated food-frequency questionnaire. LV functional parameters including end-diastolic volume, stroke volume, and LV ejection fraction were measured by magnetic resonance imaging. Multivariate analyses were conducted to examine the association between LV function and DASH eating pattern (including high consumption of fruits, vegetables, whole grains, poultry, fish, nuts, and low-fat dairy products and low consumption of red meat, sweets, and sugar-sweetened beverages).

RESULTS: A 1-unit increase in DASH eating pattern score was associated with a 0.26 ml
increase in end-diastolic volume and increases of 0.10 ml/m(2) in stroke volume, adjusted for key confounders. A 1-unit increase in DASH eating pattern score was also associated with a 0.04% increase in ejection fraction, but the relationship was marginally significant (p = 0.08).

**CONCLUSIONS:** In this population, greater DASH diet consistency is associated with favorable LV function. DASH dietary patterns could be protective against HF.