Chocolate consumption and prevalence of metabolic syndrome in the NHLBI Family Heart Study.

BACKGROUND & AIMS: Previous studies have suggested that cocoa products, which are rich sources of flavonoids, may lower blood pressure, serum cholesterol, fasting blood glucose and improve endothelial function. However, it is unclear whether consumption of cocoa products including chocolate influences the risk of metabolic syndrome (MetS). In a cross-sectional design, we sought to examine the association between chocolate consumption and the prevalence of MetS.

METHODS: We studied 4098 participants from the National Heart, Lung, and Blood Institute (NHLBI) Family Heart Study aged 25-93 years. Chocolate consumption was assessed using a semi-quantitative food-frequency questionnaire. MetS was defined using the NCEP III criteria. Generalized estimating equations were used to estimate prevalence odds ratios of MetS according to frequency of chocolate intake.

RESULTS: Of the 4098 participants (mean age 51.7 y) included in the analyses, 2206 (53.8%) were female. The prevalence of metabolic syndrome in our population was 30.2%. Compared with those who did not consume any chocolate, multivariate adjusted odds ratios (95% CI) for MetS were 1.26 (0.94, 1.69), 1.15 (0.85, 1.55), and 0.99 (0.66, 1.51) among women who reported chocolate consumption of 1-3 times/month, 1-4 times/week, and 5+ times/week, respectively. Corresponding values for men were: 1.13 (0.82, 1.57), 1.02 (0.74, 1.39), and 1.21 (0.79, 1.85).

CONCLUSION: These data do not support an association between chocolate intake and the prevalence of MetS in US adult men and women.