

ORIGINAL RESEARCH COMMUNICATION

Is higher dairy consumption associated with lower body weight and fewer metabolic disturbances? The Hoorn Study^{1,2,3}

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Background: Dairy consumption has been postulated to reduce the risk of obesity and metabolic disturbances.

Objective: The aim of this study was to evaluate the associations of dairy consumption with body weight and other components of the metabolic syndrome.

Design: We used cross-sectional data for 2064 men and women aged 50–75 y who participated in the Hoorn Study. The metabolic syndrome was defined according to the National Cholesterol Education Program Expert Panel. Dairy consumption was assessed by using a semi-quantitative food-frequency questionnaire.

Results: The median consumption of total dairy products was 4.1 servings/d. After adjustment for potential confounders (ie, dietary factors, physical activity, smoking, income, educational level, and anti-hypertensive medication), total dairy consumption was significantly associated with lower diastolic blood pressure ($\beta \pm SE$: -0.31 ± 0.12 mm Hg/serving) and higher fasting glucose concentrations (0.04 ± 0.02 mmol/L per serving), but not with body weight or other metabolic variables (ie, lipids, postload glucose, or insulin). When different dairy products were distinguished, borderline significant ($P < 0.10$) inverse associations were observed for dairy desserts, milk, and yogurt with systolic (-1.26 ± 0.58 , -0.57 ± 0.34 , and -1.28 ± 0.74 mm Hg/serving, respectively) and diastolic (-0.58 ± 0.31 , -0.57 ± 0.18 , and -0.35 ± 0.40 mm Hg/serving, respectively) blood pressure, whereas cheese consumption was positively associated with body mass index (0.15 ± 0.08 /serving).

Conclusion: In an elderly Dutch population, higher dairy consumption was not associated with lower weight or more favorable levels of components of the metabolic syndrome, except for a modest association with lower blood pressure.

Key Words: Dairy consumption • body weight • metabolic syndrome • cross-sectional study • elderly

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