Consumption of dairy products and cardiovascular disease risk: results from the French prospective cohort NutriNet-Santé

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Abstract
Current French National Health and Nutrition Plan (PNNS) recommends 2 servings of dairy products per day for adults. However, dairy contributes to dietary saturated fat intake, of which reduced consumption is often recommended for cardiovascular disease (CVD) prevention. Epidemiological evidence on the association between dairy product consumption and CVD risk remains unclear, with findings from recent prospective cohorts suggesting either null or inverse associations between dairy intake and CVD risk (¹,²). This study aimed to investigate the associations between intakes of dairy products (overall and specific types) and CVD risk in a large cohort of French adults.

This prospective study included self-selected participants aged ≥ 18 years from the NutriNet-Santé cohort (2009–2019). Dietary data were collected every 6 months using 24 h-dietary records, averaged in daily intakes and coded as sex-specific quartiles. Dairy foods were classified according the PNNS dairy groups: milk, cheese, and yogurts (i.e. yogurts, curd cheese and petit-suisses). Total, fermented and low-fat dairy intakes were also investigated. CVD cases (n = 1,952) included cerebrovascular (i.e. stroke and transient ischemic attack, n = 878 cases) and coronary heart diseases (i.e. myocardial infarction, angina, acute coronary syndrome and angioplasty, n = 1,219 cases). Multivariable Cox models were performed to characterize associations and were adjusted for age, gender, without-alcohol energy intake, number of 24-h-dietary records, smoking status, educational level, physical activity, BMI, alcohol intake and family history of CVD.

This analysis included n = 104,805 French adults with a mean age 42.8 (SD 14.6) years and the mean number of dietary records per subject was 5.7 (SD 3.1). There was no association between total or specific dairy intakes and total CVD or coronary heart disease risks. However, consumption of fermented dairy, such as cheese and yogurts, was associated with a 19% reduction in the risk of cerebrovascular disease (HRQ4 vs. Q1 = 0.81 [0.66–0.98], p trend = 0.01).

Despite being important dietary sources of saturated fat, dairy product consumption was not associated with total CVD or coronary heart disease risks in a large cohort of French adults. However, fermented dairy products may be associated with a lower risk of cerebrovascular diseases. Further observational and interventional studies may be needed to further assess the impact of dairy on CVD risk and to identify potential mechanisms underlying the beneficial effects of fermented dairy products on cerebrovascular disease risk.

Conflict of Interest
There is no conflict of interest.

References