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Walnut consumption is associated with lower risk of type 2 diabetes in women.

Pan A, Sun Q, Manson JE, Willett WC, Hu FB.

Department of Nutrition, Harvard School of Public Health, Boston, MA, USA.

Abstract

Walnuts are rich in polyunsaturated fatty acids and have been shown to improve various cardiometabolic risk factors. We aimed to investigate the association between walnut intake and incident type 2 diabetes in 2 large cohort studies: the Nurses' Health Study (NHS) and NHS II. We prospectively followed 58,063 women aged 52-77 y in NHS (1998-2008) and 79,893 women aged 35-52 y in NHS II (1999-2009) without diabetes, cardiovascular disease, or cancer at baseline. Consumption of walnuts and other nuts was assessed every 4 y using validated food frequency questionnaires. Self-reported type 2 diabetes was confirmed by a validated supplemental questionnaire. We documented a total of 5930 incident type 2 diabetes cases during 10 y of follow-up. In the multivariable-adjusted Cox proportional hazards model without body mass index (BMI), walnut consumption was associated with a lower risk of type 2 diabetes, and the HRs (95% CIs) for participants consuming 1-3 servings/mo (1 serving = 28 g), 1 serving/wk, and ≥ 2 servings/wk of walnuts were 0.93 (0.88-0.99), 0.81 (0.70-0.94), and 0.67 (0.54-0.82) compared with women who never/rarely consumed walnuts (P-trend < 0.001). Further adjustment for updated BMI slightly attenuated the association and the HRs (95% CIs) were 0.96 (0.90-1.02), 0.87 (0.75-1.01), and 0.76 (0.62-0.94), respectively (P-trend = 0.002). The consumption of total nuts (P-trend < 0.001) and other tree nuts (P-trend = 0.03) was also inversely associated with risk of type 2 diabetes, and the associations were largely explained by BMI. **Our results suggest that higher walnut consumption is associated with a significantly lower risk of type 2 diabetes in women.**