Consumption of fatty foods and incident type 2 diabetes in populations from eight European countries

BACKGROUND/OBJECTIVES: Diets high in saturated and trans fat and low in unsaturated fat may increase type 2 diabetes (T2D) risk, but studies on foods high in fat per unit weight are sparse. We assessed whether the intake of vegetable oil, butter, margarine, nuts and seeds and cakes and cookies is related to incident T2D.

SUBJECTS/METHODS: A case-cohort study was conducted, nested within eight countries of the European Prospective Investigation into Cancer (EPIC), with 12 403 incident T2D cases and a subcohort of 16 835 people, identified from a cohort of 340 234 people. Diet was assessed at baseline (1991-1999) by country-specific questionnaires. Country-specific hazard ratios (HRs) across four categories of fatty foods (nonconsumers and tertiles among consumers) were combined with random-effects meta-analysis. RESULTS: After adjustment not including body mass index (BMI), nonconsumers of butter, nuts and seeds and cakes and cookies were at higher T2D risk compared with the middle tertile of consumption. Among consumers, cakes and cookies were inversely related to T2D (HRs across increasing tertiles 1.14, 1.00 and 0.92, respectively; P-trend.