

DIABETES

Saturated fatty acids—not all bad news

Individual saturated fatty acids (SFAs) are differentially associated with risk of type 2 diabetes mellitus (T2DM), according to a new study published in *The Lancet Diabetes & Endocrinology*.

The multinational prospective EPIC–InterAct case–cohort study was nested within the wider EPIC study and included 12,132 individuals with T2DM and a control group of 15,919 randomly selected EPIC participants. Incident T2DM was determined by review of multiple sources of data (primary and secondary care registers, hospital admissions, medication use, self-report and mortality). For all participants, levels of plasma phospholipid SFAs were measured at baseline using gas chromatography; lifestyle demographics (smoking status, medical history, education level, physical activity level and dietary habits) were also collected by use of validated questionnaires.

After adjustment for other risk factors, risk of T2DM was positively associated with levels of even-chain SFAs individually and as a group (HR 1.43, 95% CI 1.29–1.58),

whereas T2DM risk was negatively associated with levels of odd-chain SFAs (HR 0.70, 95% CI 0.66–0.74) and longer-chain SFAs (HR 0.70, 95% CI 0.59–0.84). Plasma levels of even-chain SFAs correlated with consumption of starch, sugars and alcohol (mediators of *de novo* lipogenesis), whereas levels of odd-chain SFAs were positively associated with intake of dairy products.

The results from the EPIC–InterAct study highlight the need to recognize SFA subtypes as having differential influences on risk of developing T2DM. As the findings have potential implications for public health, current dietary recommendations for the intake of SFAs might need to be re-evaluated.

David Holmes

Original article Forouhi, N. G. *et al.* Differences in the prospective association between individual plasma phospholipid saturated fatty acids and incident type 2 diabetes: the EPIC–InterAct case–cohort study. *Lancet Diabetes Endocrinol.* doi:10.1016/S2213-8587(14)70146-9