

Study shows consumption of high-fat dairy products is associated with a lower risk of developing diabetes

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New research presented at this year's annual meeting of the European Association for the Study of Diabetes (EASD) in Vienna, Austria, shows that people with the highest consumption of high-fat dairy products (8 or more portions per day) have a 23% lower risk of developing type 2 diabetes than those with the lowest consumption (1 or less per day). The research is by Dr Ulrika Ericson, Lund University Diabetes Center, Malmö, Sweden, and colleagues.

Dietary fats could affect glucose metabolism and insulin sensitivity and may therefore have a crucial role in the development of [type 2 diabetes](#) (T2D). Studies have indicated that replacing saturated [fat](#) with monounsaturated and polyunsaturated fats might be favourable in the prevention of T2D. In line with this, plant sources of fat have been suggested to be a better choice compared with animal sources. Indeed, high intakes of red meat and meat products have been shown to increase the risk of T2D. Nevertheless, several epidemiological studies have indicated that a high intake of dairy products may be protective. Subsequently, the importance of dietary fat content and food sources of fat remains to be clarified. In this new study, the authors aimed to examine intakes of main dietary fat sources, classified according to fat content, and their association with risk of developing T2D.

The study included 26 930 individuals (60% women), aged 45-74 years, from the population-based Malmö Diet and Cancer cohort. Dietary data

was collected with a modified diet history method. During 14 years of follow up, 2860 incident T2D cases were identified. Modelling was used to estimate hazard ratios (HR) of diabetes incidence in quintiles of energy adjusted dietary intakes. The model included adjustments for age, sex, season, diet assessment method version, total energy intake, BMI, leisure time physical activity, smoking, alcohol consumption and education.

The researchers found that high intake of high-fat dairy products was associated with a 23% lower incidence of T2D for the highest consuming 20% of participants (or quintile) (median=8 [portions/day](#)) compared with the lowest consuming 20% (median=1 portion/day).

Concerning intakes of specific high-fat dairy foods, increasing intake of cream (30ml or more a day in the highest consuming 20% versus 0.3ml a day or less in the lowest consuming 20%) was associated with a 15% reduction in risk of developing type 2 diabetes. High-fat fermented milk consumption also reduced the risk of developing diabetes by 20%, when comparing the highest consumers (180ml/day, the top 10% of consumers), with the non-consumers (60% of participants).

In contrast to these findings, there was no association found between intakes of low-fat dairy products and risk of developing type 2 diabetes.

High intakes of meat and meat products were, regardless of fat content, associated with [increased risk](#), but the increased risk was higher for lower fat meats (increased risk of type 2 diabetes for high fat meats 9%, for low fat 24%), both referring to the risk in the highest-consuming versus lowest-consuming 20%). The highest consuming group for the high-fat meat had 90g or more per day, and for the low-fat meat 80g per day.

Dr Ericson says: "Our observations may contribute to clarifying previous

findings regarding dietary fats and their food sources in relation to T2D. The decreased risk at high intakes of high-fat dairy products, but not of low-fat dairy products, indicate that dairy fat, at least partly, explains observed protective associations between dairy intake and T2D. Meat intake was associated with increased risk of developing diabetes regardless of fat content."

She adds: "Our findings suggest, that in contrast to animal fats in general, fats specific to [dairy products](#) may have a role in prevention of type 2 [diabetes](#)."

Provided by Diabetologia

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