Diabetes

Moderate drinking may protect against diabetes

The risk of developing diabetes was lowest in those who drank moderately, and over several days a week, in a large retrospective cohort analysis from Denmark.

The researchers analysed data from the Danish Health Examination Survey 2007-2008. All adults in 13 of the 98 Danish municipalities were invited to complete a self-reported questionnaire on health and lifestyle. Participants were asked about average weekly alcohol consumption, whether they indulged in binge drinking (≥ 5 drinks on a single occasion), and if their alcohol intake had increased, decreased or stayed the same over the past five years.

It is worth noting for comparison with the UK, that one Danish standard drink contains 12 g of ethanol. In the UK, one unit of alcohol is 8 g of ethanol, so each drink in this study corresponds to 1.5 UK alcohol units.

Of the 76,284 survey participants, 28,704 men and 41,847 women were eligible for the study. Participants in the study were followed for a median of 4.9 years, and the questionnaires were used to evaluate patterns of alcohol use. Information about incident cases of diabetes was obtained from the Danish National Diabetes Register.

During the follow-up period, 859 men and 887 women developed diabetes. The risk of developing diabetes was lower in those who drank moderately than those who abstained or who drank more heavily. The study was careful to distinguish between those who were lifetime abstainers and those who had given up drinking, possibly because of health reasons, and who might have increased the apparent risk of diabetes in the abstinent group.

The lowest risk of diabetes was observed at 14 drinks/week in men; HR 0.57 (95% CI: 0.47-0.70) and 9 drinks/week in women; HR 0.42 (95% CI: 0.35-0.51). This equates to 21 UK units/week in men and 13.5 UK units a week in women.

All types of alcohol conferred the lowered risk in men, but in women spirit intake >7 drinks a week showed a significant increase in diabetes risk; HR 1.83 (95% CI: 1.29-2.58).

Compared with those drinking on less than one day a week, consumption of alcohol on three or four days a week was associated with the lowest risk of developing diabetes, even after adjusting for average weekly consumption.

The study found no clear association between binge drinking and diabetes but may have been underpowered to detect this.

The authors suggest that the presence of polyphenols, found in wine, may exert beneficial effects on blood glucose control and reduce the risk of diabetes.

The study reinforces the status quo: alcohol taken regularly in moderation, reduces the risk of developing diabetes. However, whether this outweighs any other long-term health risks remains unclear.

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Holst C, Becker U, Jorgensen ME. Alcohol drinking patterns and risk of diabetes: a cohort study of 70,551 men and women from the general Danish population. *Diabetologia* DOI 10.1007/s00125-017-4359-3

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