

Study supports association of alcohol and diabetes

29 March 2012

Subjects in a cohort in Sweden, some of whom had been exposed to a community intervention program to prevent diabetes, were evaluated 8-10 years after baseline for the presence of diabetes mellitus or impaired glucose metabolism ("pre-diabetes") in relation to a baseline report of alcohol consumption.

Approximately 2,000 men and 3,000 women had a normal glucose tolerance test at baseline; of these 105 men and 57 women developed [type II diabetes](#). Of subjects with pre-diabetes at baseline, 175 men and 98 women progressed to diabetes. The authors report that total [alcohol consumption](#) and [binge drinking](#) increased the risk of pre-diabetes and diabetes in men, while low consumption decreased [diabetes risk](#) in women. However, the authors did not discuss the findings in their cohort that in essentially all comparisons, the highest risk of diabetes or pre-diabetes was among non drinkers.

Forum reviewers had some concerns about the study. For example, the study included some subjects who had been exposed to an intervention trial to prevent diabetes, yet no information is given on potential effects of the intervention. It was not a population-based group. Also, the sample was "enriched" with subjects who had a positive family history of diabetes, which may make it more difficult to judge the effects of environmental factors. Ex-drinkers and never drinkers were included in the abstainer group.

It appears that the authors focused only on the "statistically significant" results rather than commenting on the overall pattern of association (lower risk of developing diabetes for [moderate drinkers](#) than for abstainers and heavier drinkers). Further, the number of subjects in many of the sub-groups was very small, making it difficult to define specific cut-points for effects of alcohol on risk.

Nevertheless, reviewers considered that, overall,

these analyses support the usual findings from previous research of a "U-shaped curve" for alcohol and diabetes for both men and women. There appears to be a reduction in risk with moderate alcohol intake and possibly an increased risk for heavier drinking.

More information: Cullmann M, Hilding A, Östenson CG. Alcohol consumption and risk of pre-diabetes and type 2 diabetes development in a Swedish population. *Diabet Med* 2012;29:441. [DOI: 10.1111/j.1464-5491.2011.03450.x](#)

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