

A tippie a day keeps the cardiologist away

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REGULAR AND MODERATE DRINKING THROUGHOUT THE WEEK CONFERS A LOW RISK OF IHD WHEREAS binge drinking is associated with a higher risk, a study comparing drinking habits in France and the UK has found. Binge drinkers had almost twice the risk of MI or coronary death compared with regular drinkers.

The Prospective Epidemiological Study of Myocardial Infarction (PRIME) study, in the *BMJ*, investigated the effects of alcohol intake patterns on the incidence of IHD in two countries with contrasting lifestyles. The trial recruited from one centre in Northern Ireland, Belfast, and three centres in France, Lille, Strasbourg and Toulouse.

A total of 9,778 men, aged 50-59 years, who were free of IHD at baseline were recruited between 1991 and 1994. Baseline data were gathered on drinking habits and included: weekly consumption, incidence of binge drinking (alcohol intake >50 g on at least one day a week), incidence of regular drinking (at least one day a week, and alcohol <50 g if on only one occasion), volume, frequency of consumption, and types of alcohol consumed. Incident MI and coronary death, defined as hard coronary events, and incident angina pectoris were recorded during 10 years of follow-up. The relation between the baseline characteristics and the incidence of hard coronary and angina events was assessed.

The study included 2,405 men from Belfast and 7,373 men from France, of these 1,456 (60.5%) and 6,679 (90.6%) reported drinking alcohol at least once a week, respectively. Among drinkers, 173/1,456 (12%) of men in Belfast drank alcohol every day compared with 5,008/6,679 (75%) of men in France. Mean alcohol consumption was 22.1 g/day in Belfast and 32.8 g/day in France. Binge drinkers accounted for 227/2,405 (9.4%) in the Belfast group and 33/7,373 (0.5%) in the group from France.

Overall, 683 of the 9,778 (7.0%) participants experienced IHD events during the 10 year follow-up of which 322 (3.3%) were hard coronary events and 361 (3.7%) angina events. The annual incidence of hard coronary events per 1,000 person years was 5.63 in Belfast and 2.78 in France. After adjustment for classic

cardiovascular risk factors and centre, although interestingly not for diet, the hazard ratio for hard coronary events for binge drinkers compared with regular drinkers was 1.97 (95% CI: 1.21 - 3.22). The hazard ratio for never drinkers compared with regular drinkers was 2.03 (95% CI: 1.41 - 2.94) and 1.57 (95% CI: 1.11 - 2.21) for former drinkers compared with regular drinkers.

The hazard ratio for hard coronary events in Belfast compared with France was 1.09 (95% CI: 0.79 - 1.50) after adjustment for alcohol patterns and wine drinking. Only wine drinking was associated with a lower risk of hard coronary events, irrespective of the country.

The results show that regular moderate alcohol intake throughout the week as seen in France is associated with a low risk of IHD compared with the binge drinking pattern seen in Belfast. Binge drinkers had nearly twice the risk of MI or death from coronary disease compared

with regular drinkers over 10 years of follow-up. Furthermore never drinkers had twice the risk compared with regular drinkers.

The current Department of Health guidance advises women not to drink more than two to three units of alcohol (16-24g) per day and men not more than three to four units (24-32g). Most of us would probably advise patients to drink a little alcohol but not too much to reduce their risk of coronary events and

would postulate that the beneficial effects of alcohol on heart disease are mediated in part by raising HDL cholesterol whereas excessive consumption has adverse effects on the lipid profile as well as having direct toxic effects on the myocardium. It is plausible that binge drinking may lead to changes in the myocardial conducting system and to a reduction in the arrhythmia threshold in particular for ventricular fibrillation that are not seen with regular drinking. Furthermore, the favourable lipid effects of regular drinking may be absent with irregular drinking.

So I would suggest a regular tippie throughout the festive break rather than a Christmas Day binge to wash down the turkey and mince pies.

REFERENCES

1 Ruidavets J-B, Ducimetière P, Evans A et al. Patterns of alcohol consumption and ischaemic heart disease in culturally divergent countries: the Prospective Epidemiological Study of Myocardial Infarction (PRIME) *BMJ* 2010;341:c6077

'Binge drinkers had nearly twice the risk of MI or death from coronary disease compared with regular drinkers'