

Frequency of alcohol consumption and cardiovascular risk factors

November 20 2012

Critique 096: Frequency of alcohol consumption and cardiovascular risk factors: implications for drinking guidelines 20 November 2012

Read the full critique here: <http://www.bu.edu/alcohol-forum/critique-096-frequency-of-alcohol-consumption-and-cardiovascular-risk-factors-implications-for-drinking-guidelines-20-november-2012/>

The purpose of this paper was to examine whether drinkers who consume lower-risk amounts on more frequent occasions have favourable risk factor profiles compared with those who drink more per occasion but less frequently. The authors also discuss implications for the larger debate about the limitations of non-randomized studies about 'moderate' drinking and the development of low-risk drinking guidelines. As stated by the authors, "many [observational studies](#) suggest that increased drinking frequency is associated with reduced mortality among those with low-dose [alcohol consumption](#)." Indeed, previous epidemiologic research has clearly shown that the healthiest outcomes occur among regular, moderate drinkers who do not [binge drink](#). Further, almost all studies have adjusted for a large number of socio-[economic factors](#) that are known to be potentially confounding factors for evaluating the association of alcohol consumption with [health outcomes](#).

As expected, the present study shows that regular drinkers tend to consume less alcohol per occasion, and are less likely to binge drink. Further, such individuals tend to have better socio-economic status and

lower levels of most cardiovascular [risk factors](#). Most previous researchers have interpreted the better educational status and economic levels of [moderate drinkers](#) to be important causes of their more moderate [lifestyle factors](#) (including avoiding abusive drinking). Further, most previous research, including many basic science interventions and limited trials in humans, have shown that the administration (intake) of moderate amounts of an alcoholic beverage leads to more favourable cardiovascular risk factors, and numerous mechanisms have been identified (higher HDL-cholesterol, improved vascular reactivity, improved platelet and other coagulation factors, etc.).

The authors of this paper take an unusual turn when it comes to discussing the implications of their results. They tend to down-play any potential health benefits that may be caused by alcohol or the pattern of drinking and infer instead that the favourable risk factors themselves may lead to the drinking pattern. Forum members disagreed with the implications of the authors on a number of factors: (1) the lack of randomized trials of low-dose alcohol consumption; (2) levels of evidence; (3) drinking frequency and alcohol intake; (4) clustering of lifestyle behaviours; (5) alcohol consumption and CVD-related biomarkers; (6) alcohol intake, cancer and total mortality. Further, Forum reviewers cite a large body of scientific research that refutes some of the conclusions of the authors, which imply that regular moderate alcohol intake does not relate to improved [cardiovascular risk factors](#).

Forum reviewers agree with a concluding statement of the authors about using caution before recommending drinking to the general public. However, they believe that the arguments presented in this paper are not based on a balanced appraisal of available scientific data, and should not be used to support changes in guidelines for the public.

More information: Naimi TS, Xuan Z, Brown DW, Saitz R.

Confounding and studies of 'moderate' alcohol consumption: the case of drinking frequency and implications for low-risk drinking guidelines. *Addiction* 2012; pre-publication. [doi:10.1111/j.1360-0443.2012.04074.x](https://doi.org/10.1111/j.1360-0443.2012.04074.x)

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