

The complex association between moderate alcohol consumption and breast cancer

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An excellent review article from two scientists at the National Institute on Alcohol Abuse and Alcoholism in the USA to be published in *Alcohol Clin Exp Res* 2012, describes the epidemiologic and basic scientific evidence linking alcohol consumption to the risk of breast cancer.

The authors point out deficiencies in the epidemiologic data, especially that the pattern of drinking (regular moderate versus binge drinking) has generally not been taken into consideration, important given that [binge drinking](#) is associated with much higher [blood alcohol](#) concentrations and acetaldehyde accumulation. Further, epidemiologic studies usually provide data for only a short period of time, while the development of cancer may relate to exposures over many decades. The authors also comment upon the effect that under-reporting of alcohol by study participants could exaggerate effects on cancer risk from light drinking. They discuss two hypotheses that could relate alcohol to [breast cancer risk](#): alcohol as a breast tumour promoter, and alcohol as a weak cumulative breast carcinogen, and present evidence from epidemiology and basic science that would relate to each hypothesis.

Overall, Forum reviewers were enthusiastic about this review paper, considering that it clearly outlined some of the difficulties scientists have in determining the causes of cancer. They agreed with the authors' statements regarding the necessity to consider the overall net effects of moderate drinking, including reductions in the risk of cardiovascular disease and total mortality. They also agreed that future epidemiologic studies should focus on the pattern of drinking, i.e. little and often versus

episodic and not just the average weekly amount of alcohol, and with their suggestions for future animal studies. One Forum reviewer cautioned that our understanding of the causes of breast cancer is still very incomplete, limiting our ability to provide well-founded recommendations to the public regarding moderate drinking as it relates to [breast cancer](#) risk.

More information: *Alcohol Clin Exp Res* 2012; pre-publication: [DOI: 10.1111/j.1530-0277.2012.01888.x](#).

Provided by Boston University Medical Center

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