

Does moderate alcohol consumption increase body weight?

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A paper from Spain provides an extensive review of the association between alcohol consumption and body weight. Based on the fact that the energy content in 1 gram of alcohol is 29 kJ or 7.1 kcal, excessive alcohol consumption can lead to weight gain.

The study includes descriptions of cross-sectional and prospective studies (and a few small intervention studies) among subjects who varied in age (adolescence to old age), culture (from Americans and Europeans to Asians), and principal type of beverage consumed and pattern of drinking. The authors state that many of the studies they reviewed appear to be contradictory in their results. However, based on their review, they conclude that "as positive associations between alcohol and weight gain were mainly found in studies with data on higher levels of drinking, it is possible that an effect on weight gain or abdominal adiposity may only be experienced by heavy drinkers." A second conclusion of the authors is that "the type of alcoholic beverage might play an important role in modifying the effect of alcohol consumption on weight gain," with more favourable effects generally seen among consumers of wine. A formal meta-analysis is not provided.

The overall conclusions of the authors is that it is currently unclear whether alcohol consumption is a risk factor for weight gain, but if so it appears to occur mainly among heavier drinkers. They also state that "light-to-moderate alcohol intake, especially of wine, may be more likely to protect against, rather than promote, weight gain."



Forum reviewers agreed with most of the conclusions of the authors, especially that current data do not clearly indicate if moderate drinking increases weight; further, the biologic mechanisms relating alcohol to changes in body weight are not well understood. The Forum review comments on the strong protective effects of moderate drinking on the risk of metabolic syndrome and diabetes, both of which relate to increasing obesity. Some studies suggest that even very obese people may be at lower risk of diabetes if they are moderate drinkers. Forum members also reviewed some of the distinctive mechanisms by which alcohol is metabolized in the body (it provides calories that are rapidly absorbed and are not stored in fat) that could explain differences in the effects of calories from alcohol and from other foods.

Forum members agree with the authors of this paper that future research efforts should be directed towards assessing the specific roles of different types of alcoholic beverages, taking into account drinking patterns, and perhaps including in the analysis the propensity of individual subjects to gain weight in the past. For now, there is little evidence that someone consuming small to moderate amounts of alcohol on a regular basis is increasing his or her risk of becoming obese.

More information: Sayon-Orea C, Martinez-Gonzalez MA, Bes-Rastrollo M. Alcohol consumption and body weight: a systematic review. Nutrition Reviews 2011:69:419-431.

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