

## Moderate Drinking Has No Health Benefits, Analysis of Decades of Research Finds

The review found that the methodology of many previous studies was flawed and that risk of myriad health problems increased significantly after less than two drinks a day for women and after three for men.



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4 MIN READ

For decades, scientific studies suggested moderate drinking was better for most people's health than not drinking at all, and could even help them live longer.

A new analysis of more than 40 years of research has concluded that many of those studies were flawed and that the opposite is true.

The review found that the risks of dying prematurely increase significantly for women once they drink 25 grams of alcohol a day, which is less than two standard cocktails containing 1.5 ounces of distilled spirits, two 12-ounce beers or two 5-ounce glasses of wine. The risks to men increase significantly at 45 grams of alcohol a day, or just over three drinks.

The new report, which analyzed more than 100 studies of almost five million adults, was not designed to develop drinking recommendations, but to correct for methodological problems that plagued many of the older observational studies. Those reports consistently found that moderate drinkers were less likely to die of all causes, including those not related to alcohol consumption.

Most of those studies were observational, meaning they could identify links or associations but they could be misleading and did not prove cause and effect. Scientists said that the older studies failed to recognize that light and moderate drinkers had myriad other healthy habits and advantages, and that the abstainers used as a comparison group often included former drinkers who had given up alcohol after developing health problems.

"When you compare this unhealthy group to those who go on drinking, it makes the current drinkers look more healthy and like they have lower mortality," said Tim Stockwell, a scientist with the Canadian Institute for Substance Use Research who was one of the authors of the new report, which was published in JAMA Network Open last week.

Once Dr. Stockwell and his colleagues corrected for these errors and others, he said, "Lo and behold, the supposed health benefits of drinking shrink dramatically, and become non-statistically significant."

Dr. Stockwell said that the comparisons of moderate drinkers with non-drinkers were flawed for numerous reasons. People who abstain completely from alcohol are a minority, and those who aren't teetotalers for religious reasons are more likely to have chronic health problems, to have a disability or to be from lower income backgrounds.

Moderate drinkers tend to be moderate in all ways. They tend to be wealthier, are more likely to exercise and to eat a healthy diet, and are less likely to be overweight. They even have better teeth, scientists say.

"They have a lot of things going for them that protect their health, that have nothing to do with their alcohol use," Dr. Stockwell said.

The idea that moderate drinking may be beneficial dates back to 1924, when a Johns Hopkins biologist named Raymond Pearl published a graph with a J-shaped curve, the low point in the middle representing the moderate drinkers, who had the lowest rates of mortality from all causes.

The high point in the J represented the well-known risks of heavy alcohol consumption, such as liver disease and car crashes. The hook on the left represented abstainers.

In more recent decades, wine — and particularly red wine — developed a reputation for having health benefits after news stories highlighted its high concentration of a protective antioxidant called resveratrol, which is also found in blueberries and cranberries.

But the moderate alcohol hypothesis has come under increasing criticism over the years as the alcohol industry's role in funding research has come to light, and newer studies have found that even moderate consumption of alcohol — including red wine — may contribute to cancers of the breast, esophagus and head and neck, high blood pressure and a serious heart arrhythmia called atrial fibrillation.

In January, Canada issued new guidelines warning that no amount of alcohol consumption is healthy, and urged people to cut drinking as much as possible. The new guidance, issued by the Canadian Centre on Substance Use and Addiction, was a stark departure from its 2011 guidelines, which recommended women limit themselves to no more than 10 standard drinks a week and men no more than 15.

Now the Canadian agency says that consuming even two standard drinks a week is associated with health risks, and seven or more weekly drinks carry a high level of risk.

Current U.S. dietary guidelines are nowhere near as strict, recommending men limit themselves to two drinks or less a day and women to one or less.

But guidelines about alcohol consumption issued by numerous health organizations have been amended to include the proviso that people should not drink alcohol for the express purpose of improving their health.

That caveat was repeated by a scientist with the Distilled Spirits Council, though she took issue with the findings of the new report.

Amanda Berger, vice president for science and health with the Distilled Spirits Council, said the new analysis still "suggests that those who drink in moderation live longer than those who do not," but added, "no one should drink alcohol to obtain potential health benefits and some individuals should not drink at all."

The new analysis shows, however, that those who drink moderately have no statistically significant advantage in longevity compared with those who are lifelong abstainers, the study's authors said.