

February 19, 2020

Dietary Guidelines Advisory Committee

U.S. Department of Agriculture

U.S. Department of Health and Human Services

Washington, DC 22025

**RE: Need for clear explanation of the relationship between alcohol consumption and cancer risk in the 2020-2025 Dietary Guidelines for Americans**

*Via Electronic Submission*

Dear Members of the 2020-25 Dietary Guidelines Advisory Committee:

The Consumer Federation of America (CFA) appreciates the opportunity to submit these comments to the Dietary Guidelines Advisory Committee prior to its fifth and final public meeting on March 12, 2020. Previously, we submitted [comments](https://consumerfed.org/wp-content/uploads/2019/07/Comments-of-Consumer-Federation-of-America-7-11-19.pdf) urging the Committee to adopt a transparent and evidence-based process for developing its recommendations. We have also submitted [joint comments](https://consumerfed.org/testimonial/cfa-joins-consumer-and-industry-groups-to-call-for-reform-to-dietary-guidelines/) with industry and consumer advocacy partners emphasizing the importance of portion control in the new dietary guidelines. We write now to urge the Committee to support an accurate, up-to-date depiction of the science linking alcohol and cancer in the new guidelines.

**Alcohol’s Contribution to Cancer is Significant and Underappreciated**

Drinking alcohol is the third most important cause of cancer that is within a person’s control, behind smoking and obesity.[[1]](#footnote-1) Each year, alcohol consumption causes more cancer deaths than exposure to ultraviolet radiation.[[2]](#footnote-2) The cancer risk increases with heavier levels of consumption. However, an established and growing body of research shows that even “light” alcohol consumption of less than one drink per day also causes cancer. Indeed, as far back as 2000, the Dietary Guidelines for Americans acknowledged that “[e]ven one drink per day can slightly raise the risk of breast cancer.”[[3]](#footnote-3) More recent studies, however, indicate that the increased cancer risk from light drinking is not so “slight,” and it applies to more than just breast cancer, with the incidence of cancers of the oral cavity, pharynx, and esophagus, for example, increasing significantly among light drinkers.[[4]](#footnote-4)

Unfortunately, most consumers in the United States remain unaware of the link between alcohol use and cancer. Recent surveys show that less than half of U.S. consumers identify alcohol as a cancer risk.[[5]](#footnote-5) Even among cancer survivors, awareness of the risks associated with alcohol is alarmingly low.[[6]](#footnote-6)

**Past Dietary Guidelines Mischaracterized Health Risks Associated with Alcohol**

This Committee has a duty to help remedy the troubling gap between scientifically established fact and popular understanding. This duty follows in part from the fact that previous editions of the Dietary Guidelines for Americans have so poorly represented the health risks associated with alcohol, and thus contributed to popular misconceptions of those risks. The 2005 Guidelines, for example, can be read to strongly encourage moderate drinking among certain populations:

“Moderate alcohol consumption may have beneficial health effects in some individuals. In middle-aged and older adults, a daily intake of one to two alcoholic beverages per day is associated with the lowest all-cause mortality. More specifically, compared to non-drinkers, adults who consume one to two alcoholic beverages a day appear to have a lower risk of coronary heart disease.”[[7]](#footnote-7)

The 2010 Guidelines add the caveat that no one should “begin drinking” for health reasons, but they continue to represent alcohol as a potentially salutary addition to the diet:

The consumption of alcohol can have beneficial or harmful effects, depending on the amount consumed, age, and other characteristics of the person consuming the alcohol. Alcohol consumption may have beneficial effects when consumed in moderation. Strong evidence from observational studies has shown that moderate alcohol consumption is associated with a lower risk of cardiovascular disease. Moderate alcohol consumption also is associated with reduced risk of all-cause mortality among middle-aged and older adults and may help to keep cognitive function intact with age. However, it is not recommended that anyone begin drinking or drink more frequently on the basis of potential health benefits because moderate alcohol intake also is associated with increased risk of breast cancer, violence, drowning, and injuries from falls and motor vehicle crashes.[[8]](#footnote-8)

Finally, the most recent 2015 Guidelines drop the discussion of “health benefits.” They recommend:

If alcohol is consumed, it should be in moderation—up to one drink per day for women and up to two drinks per day for men—and only by adults of legal drinking age. For those who choose to drink, moderate alcohol consumption can be incorporated into the calorie limits of most healthy eating patterns. The Dietary Guidelines does not recommend that individuals who do not drink alcohol start drinking for any reason; however, it does recommend that all foods and beverages consumed be accounted for within healthy eating patterns. Alcohol is not a component of the USDA Food Patterns.

The 2015 Guidelines rightfully abandon the previous guidelines’ message that “moderate alcohol consumption” may boost health. However, they also omit any mention of the studies linking moderate alcohol consumption to cancer. In this respect, they take a step backwards from the 2000 Guidelines. Similarly, in discussing “Those Who Should Not Consume Alcohol,” the 2015 Guidelines neglect to mention individuals with heightened cancer risk. The next edition of the Dietary Guidelines for Americans should not repeat these mistakes.

**Clear Language in the Guidelines Should Alert Consumers to Alcohol’s Cancer Risks**

The next Dietary Guidelines for Americans need to give consumers clarity on alcohol’s role in the diet. They should state unequivocally that *even moderate* alcohol consumption is associated with increased cancer risk, and they should recommend: “For cancer prevention, it is best not to drink *any* alcohol.” Again, this recommendation is consistent with research on moderate alcohol consumption and cancers of the breast, oral cavity, pharynx, and esophagus.[[9]](#footnote-9)

This recommendation may still leave some consumers wondering whether beneficial health effects associated with light drinking outweigh the cancer risks. This is understandable in light of the past guidelines’ treatment of alcohol, not to mention the relentless industry efforts to fund and publicize research on alcohol’s purported health benefits.[[10]](#footnote-10) Indeed, these efforts may explain the late addition last month of a new question for consideration by the Beverages and Added Sugars Subcommittee: “What is the relationship between alcohol consumption and all-cause mortality?”

The answer to this question increasingly appears to be: “no level of alcohol consumption improves health.”[[11]](#footnote-11) Some researchers continue to argue that moderate drinking causes healthy changes that outweigh the cancer risks for certain groups, such as adults aged 40 to 50.[[12]](#footnote-12) However, recent studies assessing the purported benefits of alcohol suggest that most of these claims are overblown. As the U.S. Centers for Disease Control and Prevention explains on its website:

Although past studies have indicated that moderate alcohol consumption has protective health benefits (*e.g*., reducing risk of heart disease), recent studies show this may not be true. While some studies have found improved health outcomes among moderate drinkers, it’s impossible to conclude whether these improved outcomes are due to moderate alcohol consumption or other differences in behaviors or genetics between people who drink moderately and people who don’t.[[13]](#footnote-13)

In general, the evidence for alcohol’s health benefits falls into two types. First, some small, short-term randomized trials have suggested that moderate alcohol use has salutary physiological effects, such as lowering cholesterol.[[14]](#footnote-14) Alcohol researchers point out, however, that “such trials cannot reliably assess realistic effects on the incidence of stroke or myocardial infarction,”[[15]](#footnote-15) not to mention the effect of alcohol use on mortality more generally.

Second, some long-term observational studies have found associations between “moderate alcohol consumption” and beneficial outcomes such as decreased incidence of diabetes and heart disease.[[16]](#footnote-16) Researchers have documented, however, how “selection biases,” rather than an actual causal relationship, may be driving these results.[[17]](#footnote-17) For example, many studies confuse lifetime “abstainers” with former alcoholics or problem drinkers, making “moderate” drinkers appear to be comparatively healthy.[[18]](#footnote-18) Similarly, many studies fail to account for “survival bias,” meaning they only consider the “moderate drinkers” that have survived up to the time of the study.[[19]](#footnote-19)

The advent of whole genome sequencing technology has allowed researchers to bypass some of these biases, and the results further undermine the proponents of “moderate” alcohol consumption’s health benefits. In a landmark study conducted last year, for example, researchers analyzed hospital, reported alcohol use, and genetic records of 512,715 Chinese adults. In China, relatively common genetic variations cause flushing and discomfort with alcohol consumption, and thereby “greatly affect alcohol drinking patterns” in the population examined by the researchers. Cultural norms also greatly affect those patterns, with very few women in the region drinking alcohol. By comparing men and women, and those with and without the relevant genetic variations, the researchers were able to obtain a “reliable comparison of the causal effects of negligible, moderate, and higher levels of mean male alcohol intake.” They did not find that moderate alcohol consumption brought any health benefits. Rather, their paper concludes “that the apparently protective effects of moderate alcohol intake against stroke are largely non-causal, and that “[a]lcohol consumption uniformly increases blood pressure and stroke risk,” while having “little net effect on the risk of myocardial infarction.”[[20]](#footnote-20)

So the evidence in support of moderate alcohol consumption improving cardiovascular health is highly suspect. In contrast, the scientific evidence linking alcohol consumption to cancer is well-established, and growing. That is why no U.S. public health authority currently advises individuals to begin drinking alcohol if they do not already. The 2020 DGAs should clearly differentiate between the ambiguity surrounding whether moderate drinking might result in overall mortality benefits for some narrow class of people, versus the relative certainty associated with moderate drinking’s contribution to cancer risk.

**Conclusion**

In preparing its recommendations, the Dietary Guidelines Advisory Committee must confront many difficult questions for which the science does not present a clear answer. These questions, however, do not include whether consuming alcohol causes cancer. It does. Even consuming just one drink per day significantly contributes to cancer risk. Scientists identified that association between moderate alcohol consumption and breast cancer decades ago, and indeed, the Dietary Guidelines for Americans recognized this link in 2000. The evidence of alcohol’s contribution to cancer has grown in the years since, and the dietary guidelines should reflect that with the clear message that “For cancer prevention, it is best not to drink *any* alcohol.”

This message would address a critical deficiency in public awareness. The available evidence indicates that most Americans simply do not understand that alcohol causes cancer. This confusion reflects in part exposure to messaging that moderate alcohol consumption is “good for you.” Indeed, past editions of the Dietary Guidelines for Americans have contributed to this phenomenon by touting studies that purport to demonstrate cardiovascular and other health benefits from moderate alcohol consumption. Yet a troubling number of those studies have not withstood scrutiny. The next edition of the dietary guidelines should give consumers an up-to-date, accurate assessment of the science on alcohol consumption and its impact on health. In doing so, the guidelines will greatly benefit public health.

Thank you for your consideration of these comments.

Sincerely,

Thomas Gremillion

Director of Food Policy

1. *Cancer Facts & Figures*, Am. Cancer Soc. 42-49 (2019), <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2019/cancer-facts-and-figures-2019.pdf>; Islami F, Goding Sauer A, Miller KD, et al. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States. CA Cancer J Clin. 2018;68: 31-54. [↑](#footnote-ref-1)
2. *Id.*  [↑](#footnote-ref-2)
3. Dietary Guidelines for Americans, 2000, p.36 *available at*: <https://www.dietaryguidelines.gov/sites/default/files/2019-05/2000%20Dietary%20Guidelines%20for%20Americans.pdf> [↑](#footnote-ref-3)
4. Bagnardi et al. “Light alcohol drinking and cancer: a meta-analysis,” *Annals of Oncology*, Volume 24, Issue 2, February 2013, Pages 301–308, <https://academic.oup.com/annonc/article/24/2/301/223860> [↑](#footnote-ref-4)
5. *Survey: Fewer than half of Americans recognize alcohol, processed meats, other controllable factors affect cancer risk*, Am. Inst. for Cancer Research (Feb. 1, 2017), <http://www.aicr.org/press/press-releases/2017/Fewer-than-half-of-Americans-recognize-alcohol-processed-meats-affect-cancer-risk.html>. [↑](#footnote-ref-5)
6. Hawkins et al. “Awareness of Dietary and Alcohol Guidelines Among Colorectal Cancer Survivors.” *American Journal of Preventive Medicine* (2015), <https://www.sciencedirect.com/science/article/pii/S0749379715004869> (finding that, among 593 survivors of colorectal cancer—a cancer to which alcohol is known to specifically contribute —“15% had never heard of recommendations to limit alcohol,” and 11% percent were only “slightly familiar” with those recommendations.). [↑](#footnote-ref-6)
7. Dietary Guidelines for Americans, 2005, p.44-45, *available at*: <https://www.move.va.gov/docs/Resources/DietaryGuidelinesForAmericans2005.pdf> [↑](#footnote-ref-7)
8. Dietary Guidelines for Americans, 2010, p.31, *available at*: <https://health.gov/sites/default/files/2020-01/DietaryGuidelines2010.pdf>. [↑](#footnote-ref-8)
9. *See Bagnardi*, supre note 3. [↑](#footnote-ref-9)
10. Roni Rabin. “Major Study of Drinking Will Be Shut Down,” *N.Y. Times*, (June 15, 2018), *available at*: <https://www.nytimes.com/2018/06/15/health/alcohol-nih-drinking.html?searchResultPosition=1> (reporting that “the National Institutes of Health gave scientists $100 million to fund a global study comparing people who drink with those who don’t,” but that “much of the money for the study came from the alcohol industry,” and that its design was sharply criticized by outside investigators as appearing to “intentionally bias the framing of the scientific premise in the direction of demonstrating a beneficial health effect of moderate alcohol consumption.”). [↑](#footnote-ref-10)
11. Robyn Burton, Nick Sheron. “No level of alcohol consumption improves health.” *The Lancet*, (Aug. 23, 2018), <https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)31571-X/fulltext> [↑](#footnote-ref-11)
12. *See, e.g.,* Rubin E. To drink or not to drink: that is the question. Alcohol Clin Exp Res. <https://onlinelibrary.wiley.com/doi/abs/10.1111/acer.12582> [↑](#footnote-ref-12)
13. CDC. “Moderate Drinking” <https://www.cdc.gov/alcohol/fact-sheets/moderate-drinking.htm> (last visited June \_\_, 2019) *citing* I Chikritzhs T, Fillmore K, Stockwell T. [A healthy dose of skepticism: four good reasons to think again about protective effects of alcohol on coronary heart diseaseExternal](http://www.ncbi.nlm.nih.gov/pubmed/19594799). Drug Alcohol Rev 2009;28:441–4; Andréasson S, Chikritzhs T, Dangardt F, Holder H, Naimi T, Stockwell T. [Evidence about health effects of “moderate” alcohol consumption: reasons for skepticism and public health implications.Cdc-pdf[PDF-9.44 MB]External](http://arkiv.iogt.se/pdf/Alcohol_and_society_2014_en.pdf) . In: Alcohol and Society 2014. Stockholm: IOGT-NTO & Swedish Society of Medicine, 2014; Knott CS, Coombs N, Stamatakis E, Biddulph JP. [All cause mortality and the case for age specific alcohol consumption guidelines: pooled analyses of up to 10 population based cohortsExternal](http://www.ncbi.nlm.nih.gov/pubmed/25670624). BMJ 2015;350:h384; Holmes MV, Dale CE, Zuccolo L, et al. [Association between alcohol and cardiovascular disease: Mendelian randomisation analysis based on individual participant data.External](http://www.ncbi.nlm.nih.gov/pubmed/25011450) BMJ 2014;349:g4164; Naimi TS, Brown DW, Brewer RD, et al. [Cardiovascular risk factors and confounders among nondrinking and moderate-drinking US adultsExternal](http://www.ncbi.nlm.nih.gov/pubmed/15831343). Am J Prev Med 2005;28(4):369–73. [↑](#footnote-ref-13)
14. *See, e.g.,* Gepner, Y., Golan, R., Harman-Boehm, I., Henkin, Y., Schwarzfuchs, D., Shelef, I., … Shai, I. (2015). Effects of initiating moderate alcohol intake on cardiometabolic risk in adults with type

    2 diabetes: A 2-year randomized, controlled trial. Annals of Internal Medicine, 163, 569–579, <https://annals.org/aim/article-abstract/2456121/effects-initiating-moderate-alcohol-intake-cardiometabolic-risk-adults-type-2> (Two year study of 224 diabetes patients that compared a sub-group randomly assigned a glass of wine with dinner to a control group assigned mineral water, found “that initiating moderate wine intake, especially red wine, among well-controlled diabetics as part of a healthy diet is apparently safe and modestly decreases cardiometabolic risk.”). [↑](#footnote-ref-14)
15. Millwood et al. “Conventional and genetic evidence on alcohol and vascular disease aetiology: a prospective study of 500 000 men and women in China.” *Lancet*, Vol: 393:10183, pp. 1831-1842 (Apr. 04, 2019), <https://doi.org/10.1016/S0140-6736(18)31772-0>. [↑](#footnote-ref-15)
16. *See, e.g.,* Howard, A. A., Arnsten, J. H., & Gourevitch, M. N. (2004). Effect of alcohol consumption on diabetes mellitus: a systematic review. Annals of Internal Medicine, 140(3), 211-219; <https://search.proquest.com/openview/5f85f5b9bb6971af50cc53974aedb485/1?pq-origsite=gscholar&cbl=42137> (Review of 32 studies comparing moderate alcohol consumption to no alcohol use found that “Moderate alcohol consumption is associated with a decreased incidence of diabetes mellitus and a decreased incidence of heart disease in persons with diabetes.”); [↑](#footnote-ref-16)
17. Naimi TS Stockwell T Zhao J et al. Selection biases in observational studies affect associations between ‘moderate’ alcohol consumption and mortality. *Addiction*. 2017; 112: 207-214, <https://onlinelibrary.wiley.com/doi/abs/10.1111/add.13451> [↑](#footnote-ref-17)
18. Tim Stockwell, Jinhui Zhao, Sapna Panwar, Audra Roemer, Timothy Naimi, and Tanya Chikritzhs.

    Do “Moderate” Drinkers Have Reduced Mortality Risk? A Systematic Review and Meta-Analysis of Alcohol Consumption and All-Cause Mortality. *Journal of Studies on Alcohol and Drugs* 2016 77:2, 185-198 <https://www.jsad.com/doi/full/10.15288/jsad.2016.77.185> (noting that “of 87 studies identified” as “original prospective studies concerning the association between alcohol consumption and all-cause mortality” which provided sufficient information to be evaluated, “65 included former drinkers in the ‘abstainer’ reference group.”). [↑](#footnote-ref-18)
19. *Id.* [↑](#footnote-ref-19)
20. *See* Millwood et al, *supra* note 15. [↑](#footnote-ref-20)