Alcohol in Moderation

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International Digest on alcohol and health and the responsible consumption of alcohol

Contents

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Henk Hendriks - **Co-director**
E: henk@alcoholinmoderation.com

Creina Stockley - **Co-director**
E: creina@alcoholinmoderation.com

Alison Rees - **Editor**
E: alison@alcoholinmoderation.com

Zoe Westwood – **Finance and subscriptions**
E: zoe@alcoholinmoderation.com

Cardiovascular and aortic wave reflection responses to evening binge alcohol consumption

Evening binge drinking contributes to sleep disruption and autonomic dysregulation that persist into the following morning. However, its impact on morning arterial stiffness and aortic wave reflection remains unknown.

Researchers hypothesised that heart rate (HR), carotid-femoral pulse wave velocity (cfPWV), aortic augmentation index (AIx), and aortic pulsatile load (APL) would be elevated immediately after binge drinking at night (Study 1) and the following morning (Study 2).

Thirty-three participants [18 females, 15 males; aged 25 ± 1 yr; body mass index (BMI): 27 ± 1 kg/m^2] completed binge alcohol (equivalent to 4-5 drinks) and fluid control protocols. Study 1 examined cardiovascular responses during resting baseline and within 30 minutes of evening alcohol consumption, while Study 2 examined cardiovascular responses within 15 minutes of waking the morning after binge alcohol or fluid control.

In Study 1, HR and APL increased after the final dose of alcohol but decreased with fluid control. In Study 2, morning HR (63 ± 2 vs. 57 ± 1 beats/min), APL (2,060 ± 82 vs. 1,857 ± 66 a.u.), and AIx normalized to 75 beats/min (AIx@75) (6.5 ± 2.4 vs. 2.9 ± 2.5%) were elevated, whereas unadjusted AIx remained unchanged after binge alcohol compared with fluid control. cfPWV was not affected by binge alcohol acutely (Study 1) or the following morning (Study 2).

The results show that evening binge drinking causes immediate increases in HR and APL, and the next morning sees increases in HR, APL, and AIx@75. These findings emphasise physiological mechanisms that could contribute to the well-known links between binge drinking and increased cardiovascular risk.

Increases in aortic wave reflection and aortic pulsatile load are recognised contributors to hypertension, cardiovascular risk, and pulsatile stress to end organs. The authors state that, to their knowledge, this is the first study to demonstrate that evening binge alcohol consumption raises heart rate, aortic pulsatile load, and aortic augmentation index the following morning compared with fluid control. These findings emphasise the harmful overnight cardiovascular effects of binge alcohol consumption in young adults.

Source: Thivierge GS, Greenlund IM, Bigalke JA, Smoot CA, Carter JR, & Durocher JJ. (2025) Cardiovascular and aortic wave reflection responses to evening binge alcohol consumption. American Journal of Physiology and Heart Circulation Physiology, 329(3):H629-H635. doi.org/10.1152/ajpheart.00466.2025.

Association between alcohol consumption and mortality in Parkinson's disease

Park Y.H., Kim Y.W., Kang D.R., Yoon S.Y.
J Neural Transm. 2025; July 7; doi.org/10.1007/s00702-025-02976-2. Online ahead of print.

Author's Abstract

Background Previous studies on the association between alcohol consumption and risk of Parkinson's disease (PD) have produced controversial results. However, the relationship between alcohol consumption and mortality in PD has scarcely been investigated.

Methods Among the nationwide population data from Korea National Health Insurance Service, newly diagnosed PD (ICD-10 code: G20 and a rare intractable disease registration code: V124), between 2009 and 2017, were selected. Alcohol consumption habit was obtained from a self-reported questionnaire on the National Health Screening Program. 32,419 individuals with PD were followed up longitudinally until December 31, 2017, and all-cause mortality was evaluated.

Results During the follow-up period (mean 4.37 ± 2.67 years), 9,049 deaths occurred. When non-drinkers are used as a reference group, there were significant associations between alcohol consumption and all-cause mortality in mild (hazard ratio [HR] 0.78, 95% confidence interval [CI] 0.71–0.84) and moderate drinkers (HR 0.69, 95% CI 0.58–0.82), but not in heavy drinkers (HR 0.84, 95% CI 0.69–1.02). In the sensitivity analysis using never drinkers as the reference group, the results also showed an overall 20% reduced mortality risk among drinkers with PD. Regarding changes in alcohol consumption behavior before and after diagnosis, the mortality rate was higher in former drinkers (HR 1.20, 95% CI 1.02–1.41) and lower in constant drinkers (HR 0.74, 95% CI 0.65–0.83) than in never drinkers.

Conclusion Alcohol consumption appears to be associated with reduced all-cause mortality in PD, suggesting potential neuroprotective effects on disease progression. Although drinking does not appear to be detrimental to all-cause mortality in individuals with PD, alcohol consumption in PD requires attention considering individual motor and non-motor symptoms. Future studies in other ethnic groups are warranted to validate the association between alcohol consumption and disease progression, including mortality, in PD.

Forum Summary

Parkinson's disease (PD) is a brain disorder that affects movement and mental health. This disease is the second most common neurodegenerative condition after Alzheimer's disease, and its incidence is expected to rise. Previous studies have identified associations between lifestyle factors and the risk of PD.

This study by Park et al. (2025) is particularly interesting because it does not focus on the association between alcohol consumption and the incidence of PD, but instead on the relationship between alcohol consumption and mortality in PD patients based on a nationwide prospective study in Korea. Although a large number of PD patients were included, alcohol consumption was generally low, and many patients were non-drinkers with imbalances in baseline variables. The associations were evaluated using the non-drinking control group as a whole, as well as using never-drinkers and former drinkers as separate controls. Survival analysis indicated that former drinkers had worse survival rates than never drinkers. In turn, never drinkers had poorer survival than continuous drinkers. While a clear J-shaped relationship was observed between moderate alcohol consumption and mortality in PD patients, comparing these results with those of non-PD patients would have strengthened the findings. Additional limitations include the assessment of alcohol consumption, PD diagnosis, lack of mechanistic insights, and the generalisability of the results to other populations. Nonetheless, this original study offers intriguing hypothesis-generating insights into the association between alcohol consumption and overall mortality in PD patients.

Forum Comments

Background

Parkinson's disease (PD) is a brain disorder that affects movement and mental health. Common symptoms include tremors, painful muscle contractions, difficulty speaking, as well as cognitive impairment and mental health issues. PD tends to worsen over time, and there is no cure, but treatments and medication can help manage symptoms. This disease usually affects older people, although younger individuals can also be

affected. Men are more commonly affected than women. (Pringsheim et al., 2014).

This disease is the second most common neurodegenerative condition after Alzheimer's disease and its incidence is expected to rise; the global number of PD cases is projected to reach 25.2 million by 2050, indicating a worldwide increase in prevalence with notable differences depending on location, age, sex and socioeconomic status. (Su et al., 2025).

The cause of PD remains unknown, although it is recognised that both genetic and environmental factors contribute. Approximately 15-30% of cases are thought to be due to genetic factors, with the remaining cases likely influenced by a combination of genetic and environmental factors. While most people with PD do not have a family history of the condition, genetic mutations can be important in some families.

Previous studies have identified associations between lifestyle factors and the risk of PD. Physical activity, smoking, coffee, and tea consumption seem to decrease the risk of PD, while dairy consumption and aspirin appear to increase the risk of PD (Tumas et al., 2025).

An association between alcohol consumption and PD risk has also been observed in case-control and cohort studies, associating moderate alcohol consumption with a weak reduction in risk (Palacios et al, 2013), but no effect in women. In fact, a relatively recent systematic review and dose-response meta-analysis of alcohol consumption indicates that drinking alcohol is associated with a lower risk of PD, with a non-linear and nearly U-shaped relationship. There are, however, variations depending on the type of beverage consumed (Shao et al. 2021).

This study by Park et al. (2025) is particularly interesting because it does not focus on the association between alcohol consumption and the incidence of PD, but instead on the relationship between alcohol consumption and mortality in PD patients. For that purpose, Park et al. (2025) conducted a prospective study based on the National Health Insurance Service database of Korea, which contains the medical records of the majority of the Korean population.

Critique

A large number of PD patients (32,419) were included in the study, with a relatively short mean follow-up of approximately 4.4 years and a notable mortality rate of about 28%. PD patients who drank alcohol differed from non-drinkers; drinkers were more likely to be younger and male. While the mortality rate for female PD patients was lower than for males, at 23% versus 33%, respectively, more male PD patients drank alcohol than females, at 26% compared to 8%. The non-drinkers, accounting for over 80% of this population and mainly consisting of women (around 60%), were more likely to have co-morbidities and lead less healthy lifestyles.

Hazard ratios (HR) were calculated based on unadjusted and various adjusted models, showing that the risk of all-cause mortality was lower in mild, moderate, and heavy drinkers, with HRs of 0.72, 0.57, and 0.76 in the unadjusted model, respectively. Similar HRs were obtained in the two additional models. The heavy drinking group did not reach significance in their third model, which adjusted for numerous factors, including various other lifestyle factors. This indicates that, overall, a 20-30% reduction in mortality is observed in mild and moderate drinking PD patients, suggesting a potential neuroprotective effect on disease progression, as concluded by the authors. However, this effect is mainly due to observations in men, as there were few drinking women in the study population.

An important point in this paper is the subdivision made within the non-drinking group. The authors not only analysed the results using the non-drinking group as a whole but also distinguished between never-drinkers and former drinkers. Both survival probability curves and sensitivity analyses were conducted using these different non-drinking groups. Survival analysis showed that former drinkers had poorer survival than never drinkers. In turn, never drinkers had poorer survival than constant drinkers. Sensitivity analysis revealed that HRs were very similar for all-cause mortality in PD patients, whether using the non-drinkers as a whole or using the never drinkers as a reference group. These analyses suggest that former drinkers fare worse in terms of their health, but including these former drinkers in the non-drinking control group does not significantly alter the associations.

The authors state that this association suggests a potential neuroprotective effect on disease progression. While alcohol use disorder has been associated with an increased risk of neurodegenerative diseases like PD (Kamal et a. 2020), various factors have been reported to influence the neuroprotective and neurodegenerative properties of alcohol, including the types of beverages consumed (beer vs. wine vs. liquor). Alcoholic beverages with lower concentrations of ethanol, such as beer, when consumed in low or moderate amounts, are associated with a reduced risk of developing PD (Liu et al. 2013, Zhang et al. 2014).

Interestingly, self-reported alcohol consumption exceeding 56 g per week was associated with higher iron levels in the basal ganglia, which in turn was associated with poorer cognitive function; the basal ganglia is a group of brain regions involved in motor control, procedural learning, eye movements, and cognition. Iron accumulation may be a mechanism underlying alcohol-related cognitive decline, such as in PD (Topiwala et al. 2022). Compounds such as purine, niacin, folic acid, and other phenolic compounds in beer are thought to mediate the neuroprotective effects of alcohol (Sanchez-Muniz et al. 2019). Red wine, known to contain high levels of antioxidants, when consumed at low or moderate levels, may reduce microglial activation, the expression of pro-inflammatory cytokines, and inflammatory mediators, as shown in a rat model (McCarter et al. 2017). Alternatively, low amounts of alcohol consumption may promote the clearance of neurological disease-associated entangled proteins (Cheng et al. 2019) and other waste products from the brain, as occurs during sleep (Smyth et al. 2025). Such waste clearance is mediated by the brain's system, known as the glymphatic system (Hablitz & Nedergaard, 2021). There is some neuroimaging evidence of glymphatic system dysfunction in patients with PD (Si et al., 2022).

Specific Comments from Forum Members

Forum member Romano considers that "the study by Park et al. (2025) employs a prospective national cohort design, with a large sample size and significant population coverage, which constitute some of its main strengths. These features allow for reliable longitudinal follow-up and provide sufficient statistical power to evaluate the relationship between alcohol consumption and mortality in patients with Parkinson's disease. The study provides evidence specific to the Korean population, with high internal validity and local relevance; however, its generalizability to other populations is limited. This is important for interpreting the findings and for planning future multicentre or international research. Moreover, the authors applied extensive multivariable adjustments, including age, sex, comorbidities, smoking status, physical activity, and clinical parameters, as well as sensitivity analyses distinguishing former drinkers from never-drinkers, reflecting careful consideration of potential internal biases.

However, the robustness of the study is limited by several methodological issues. Alcohol consumption was measured via self-report at a single time point, without differentiation by type of beverage, consumption patterns, or subsequent changes, introducing a 'misclassification risk.' Including former drinkers in the reference group also introduces the well-known 'sick-quitter' bias, which may create a false impression of a protective effect in moderate drinkers. Additional limitations pertain to the statistical analysis, such as the absence of proportionality tests in the Cox models and the lack of dose–response evaluation, as well as residual confounding from unmeasured variables, including functional severity or interactions with antiparkinsonian medications. The outcome, defined as all-cause mortality, also does not allow the identification of disease-specific mechanisms. For these reasons, the study's internal validity is moderate, and the findings do not support reliable causal inferences.

From a statistical standpoint, the study has notable limitations affecting the strength of its conclusions. Exposure classification through self-report, inclusion of former drinkers in the reference group, measurement of alcohol intake after diagnosis, and significant imbalance in baseline variables create clear risks of misclassification bias, residual confounding, and 'sick-quitter' bias. Furthermore, the lack of modelling exposure as a time-dependent variable, the absence of proportional hazard checks, and the omission of competing risk considerations reduce the validity of the analysis.

Although adjusted models indicate an association between light/moderate alcohol consumption and lower mortality, the observed pattern is

more consistent with statistical artefacts and epidemiological biases than with a true protective effect of alcohol in PD. Establishing causal inference would require additional analyses, such as marginal structural models, splines, multiple imputation, competing risk analyses, and formal control of unmeasured confounding.

The study examines 'alcohol consumption' as a global variable without distinguishing between fermented beverages (wine, beer) and distilled spirits (whisky, soju, vodka, etc.). This omission is relevant because fermented beverages often contain polyphenols, antioxidants, and bioactive compounds (e.g., resveratrol in wine), which have been studied for potential neuroprotective effects. In contrast, distilled spirits typically lack these compounds, with risk attributable almost exclusively to ethanol. Failure to differentiate introduces exposure misclassification, diluting potential differences in clinical impact by beverage type and complicating interpretation of whether the observed association is attributable to ethanol itself or accompanying compounds.

Additionally, the study defines alcohol doses as 8 g. The relationship between a single drink and its alcohol content is crucial for evaluating moderate consumption. A standard serving of wine, beer, or spirits typically contains 10–14 g of alcohol, meaning these beverages may exceed the 8-gram threshold considered moderate.

Patients with PD often receive complex pharmacological regimens, including levodopa, dopaminergic agonists, MAO-B inhibitors, COMT inhibitors, and amantadine. Alcohol consumption may produce pharmacodynamic and pharmacokinetic interactions, such as increased somnolence, confusion, or dizziness, raising fall risk, as well as gastrointestinal effects that may alter levodopa absorption. The absence of adjustment for, or at least discussion of, these interactions represent a substantial clinical limitation, given that mortality in PD may be mediated by complications related to falls, dysphagia, or drug interactions rather than a direct effect of alcohol.

In terms of originality, the study stands out for focusing specifically on Parkinson's patients and exploring mortality as an outcome, a relatively understudied area compared to the general population. The initial distinction between former drinkers and never-drinkers also adds a novel perspective within Parkinson's epidemiological research. Nevertheless, the clinical and methodological originality is limited because the study does not analyse alcohol type, consider medication interactions, or evaluate disease-specific outcomes such as falls, dysphagia, or neurological complications. Overall, the study provides interesting descriptive evidence and hypothesis-generating suggestions but lacks sufficient innovation to support definitive conclusions or clinical recommendations."

Forum member McIntosh suggests that "Park et al. (2025) attempt to examine the effect of alcohol use on Parkinson's disease in an all-cause mortality model. Their only result is shown in the first two columns of Table 1 below, in which hazard rates for various types of drinkers are displayed.

This has the commonly observed J shape, indicating that all levels of alcohol consumption are associated with longer lifespans, with the moderate drinking category providing the gre atest longevity benefit for Koreans who have suffered from PD.

Unfortunately, this result provides no information about the connection between alcohol consumption and lifespan for those who have PD. A procedure which determines whether alcohol has any effect on PD must distinguish between the effect on those who have it as opposed to those who don't.

One way to address this issue is to run this model on matched subsamples of Koreans who do not have PD and compare the two sets of hazard ratios. This is what the authors of this study could have done. However, other researchers have also investigated the impact of alcohol consumption on longevity. The second two columns in Table 1 are from a very recent study of Korean all-cause mortality for a large representative sample of the

Table 1.

Drinker Type	Hazard Ratio Park et al. (2024)	CI	Hazard Ratio Kim et al. (2024)	CI
Non-Drinker	1.0		1.0	
Mild	0.78	[0.71, 0.84]	0.83	[0.81, 0.84]
Moderate	0.69	[0,58, 0.82]	0.93	[0.91, 0.94]
Heavy	0.84	[0.69, 1.02]	1.11	1.08, 1.12]

population for the same year, Kim et al. (2024). The hazard ratios are significantly higher than those in the first two columns, indicating some beneficial effect of alcohol use on lifespan for all causes of death among those suffering from Parkinson's disease.

However, the best way of analysing this problem is to run a competing risk model of all the important causes of death to see whether alcohol use has any effect on these durations. It is important to allow other diseases to censor PD's durations because this disease in not in the top 10 causes of death in Korea and many of the more prominent diseases also have durations which depend on alcohol use."

Forum member Harding's only comment is on the way alcohol consumption was assessed in the cohort. "The question posed was, How much do you usually drink a day (cups)? This is because in Korea, different standard-sized cups are customarily used to consume different types of alcoholic beverages, beer being consumed in 220 ml cups and soju (a distilled spirit usually made from rice, but sometimes from sweet potatoes, wheat or tapioca) in 50 ml cups. These two drinks comprise over 99% by volume of all alcoholic beverages consumed in Korea (beer 67% and soju 32%), so it is reasonable to base this study on just those two.

But then the paper states, Although beverages (i.e., beer and soju) may have different alcohol percentages, previous studies have shown that the alcohol content per cup is similar in Korea regardless of the type of cup (Kim et al. 2020b, Yoo et al. 2021). An examination of these two papers reveals that this assertion is based on the assumption that beer contains 4.5% alcohol and soju contains 21% alcohol, without any supporting evidence. The Wikipedia entry on beer in South Korea suggests that 4.5% might be on the low side. A Google search on the nature of soju has revealed that the strength can vary in the range of 21% to 34%, or in the range of 12.5% to 53%, with low alcohol soju (below 20%) now being the most common type. Thus, it is not clear how robust the assumption of 21% actually is."

Forum member Waterhouse has two concerns. "First, the use of these diagnostic codes was implemented only two years before the study started, so I am concerned that the use of these codes might not have been very consistent or reliable. Second, as previously noted, the association between PD and the observed effect on mortality may be irrelevant. I think they should have had a control population of similar subjects who had not had a PD diagnosis. Without that comparison, I don't see how they could have observed any interaction between alcohol consumption and PD. "

Forum member Goldfinger further suggests that "cultural differences, including both the predominant types of alcohol consumed and the patterns of consumption, make direct comparisons with Western populations difficult, at best. The findings do not establish causality."

Forum member Ellison thought this paper "was interesting, but may have limited applicability to most other populations, especially in developed Western cultures. Among the Koreans in this study, the percentage of subjects who consumed alcohol was much lower than in North American and European populations, and the types of alcoholic beverages were different, with the pattern of drinking not well known. The rates of alcohol consumption among women were particularly low, with almost 93% being abstainers. Furthermore, the Koreans who did consume alcohol appeared to differ significantly from abstaining subjects in many ways, especially regarding smoking habits, obesity, physical activity, rural living, and some laboratory factors such as dyslipidaemia. While attempts were made to 'control' for these differences in the multivariable analysis, such control seldom completely adjusts for disparities. I believe that the results of this study require replication among Western populations, with longer-term follow-up, before the findings can be applied to those cultures.

Interpreting the finding that total mortality rates among subjects with PD were lower for drinkers might be clearer if the causes of death were reported. Deaths among PD subjects arise from a number of conditions, not always directly related to the disease itself. A similar pattern has been observed in breast cancer in women. For example, the incidence of breast cancer is usually slightly higher among moderate drinkers than among abstaining women, yet the overall mortality risk in such groups is generally reduced in most studies. When cardiovascular disease is the primary cause of death, differences in risk factors for such disease may help explain these findings."

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Comments on this critique by the International Scientific Forum on Alcohol Research were provided by the following members:

Henk Hendriks, PhD, Independent consultant and partner of the Nutrition Consultants Cooperative, Netherlands

Creina Stockley, PhD, MBA, Independent consultant and Adjunct Senior Lecturer in the School of Agriculture, Food and Wine at the University of Adelaide, Australia

Raquel Romano, PhD, Independent consultant and Professor of Applied Technology at the University of Aconcagua, Argentina

James McIntosh, PhD, Retired Professor of Economics, Concordia University, Montreal, Canada

Richard Harding, PhD, Formerly Head of Consumer Choice, Food Standards and Special Projects Division, Food Standards Agency, UK

Andrew Waterhouse, PhD, Department of Viticulture and Enology, University of California, Davis, CA, USA

Tedd Goldfinger, DO, FACC, Desert Cardiology of Tucson Heart Center, University of Arizona School of Medicine, Tucson, AZ, USA

R. Curtis Ellison, MD, Section of Preventive Medicine/Epidemiology, Boston University School of Medicine, Boston, MA, USA

Alcohol use and types and ischaemic stroke: a systematic review and meta-analysis

A systematic review and meta-analysis was performed to examine the relationship between alcohol consumption patterns and the risk of ischaemic stroke. Research databases were searched to find articles assessing the impact of alcohol drinking behaviour on stroke risk. The total number of participants included was 21,293,471 from 125 studies.

The model that examined the relationship between light alcohol consumption and the risk of ischaemic stroke showed no association [relative risk (RR) =0.97, 95% confidence interval (CI) 0.89-1.05]. Moderate alcohol consumption was linked to a significant decrease in ischaemic stroke risk (RR=0.87; 95% CI 0.83-0.92), while heavy alcohol consumption was associated with a significant increase in risk (RR=1.31; 95% CI 1.19-1.44). Sub-group analysis among males showed results similar to the primary analysis, whereas among females, only moderate alcohol intake was significantly associated with a lower risk of ischaemic stroke (RR=0.50; 95% CI 0.33-0.75). Moderate and heavy wine consumption was linked to a notable reduction in ischaemic stroke risk (RR=0.61; 95% CI 0.45-0.84, RR=0.77; 95% CI 0.63-0.93).

The analysis provided strong and robust evidence that there was a significant association between moderate and heavy alcohol use and the risk of ischaemic stroke. However, this association varied across several variables, including the type of alcohol, with the effect being more protective among people who consume wine.

Source: Toubasi AA, & Al-Sayegh TN. (2025) Alcohol use and types and ischemic stroke: a systematic review and meta-analysis. European Neurology, 1-20. doi.org/10.1159/000547945.

Meta-analyses on alcohol consumption and all-cause mortality 2000-2025

The IARD has published a visual summary of meta-analyses conducted between 2000 and 2025 on alcohol consumption and all-cause mortality. It examines whether the risk for light-to-moderate drinkers is the same or lower than that of non-drinkers, whether a J-shaped risk curve (indicating lower risk at low-to-moderate alcohol consumption) was identified, and whether former drinkers were distinguished from lifetime abstainers in each meta-analysis.

iard.org/science-resources/detail/Table-MAs-AllCause-Mortality

The level of acute alcohol exposure during binge drinking associates with the extent of cardiac response

The cardiovascular effects of acute alcohol exposure remain incompletely understood, despite its reported association with arrhythmias such as atrial fibrillation (AF). The Munich-BREW II study supported a link between excessive alcohol consumption, increased heart rate, impaired heart rate variability (HRV), and a higher incidence of arrhythmias. Academics present sub-analyses exploring how the amount of alcohol consumed during binge drinking and the maximum breath alcohol concentration (BAC) influence these findings.

The Munich-BREW II study is a prospective, single-centre cohort study conducted at LMU University Hospital, Munich from October 2016 to July 2017. Participants consumed alcohol under supervision, with hourly BAC measurements and continuous 3-lead Holter monitoring for ECG analyses of heart rate, HRV, and arrhythmias. Subgroup analyses stratified participants by quartiles of alcohol consumption and peak BAC, respectively.

The research analysed 193 participants (mean age 29.9 ± 10.6 years, 36% women). Subgroup analyses revealed that higher alcohol intake during binge drinking was associated with significantly increased heart rate and reduced HRV measures. Similarly, higher BAC levels correlated with elevated heart rates. Both subgroups showed a more marked effect in the highest quartile. Clinically relevant arrhythmias were not differently distributed across subgroups.

In this subgroup analysis of the Munich-BREW II study, higher alcohol consumption and BAC during binge drinking were linked to increased heart rate and reduced cardiac autonomic tone. The findings indicate a dose-response relationship and discourage excessive alcohol intake. Further research is needed to explore how varying levels of alcohol exposure can influence clinical outcomes.

Source: von Falkenhausen AS, Krewitz C, Winter R, Kern A, Brunner D, Brunner S, & Sinner MF. (2025) The level of acute alcohol exposure during binge drinking associates with the extent of cardiac response. Clinical and Research Cardiology. doi.org/10.1007/s00392-025-02722-4.

Sex differences in impacts of alcohol consumption on prevalent atrial fibrillation

High levels of alcohol intake are a well-established risk factor for atrial fibrillation (AF). It remains uncertain whether alcohol consumption should be regulated differently between sexes to prevent AF. Sex differences in alcohol-related AF risk were examined in a study published in the Journal of Arrhythmia.

Among 224,759 admissions in the Inpatient Clinico-Occupational Database of the Rosai Hospital Group (ICOD-R) from 32 hospitals across Japan in 2021, 123,852 participants were included. Using this cross-sectional dataset, associations between prevalent AF and alcohol consumption data, including drinking frequency, daily average drinks, and lifetime total alcohol intake, were examined in women and men.

3.7% of women had prevalent AF. Frequent drinking (≥ 4 days/week), high daily intake (≥ 2 drinks/day), and high lifetime consumption (≥ 65 drink-years) were associated with increased prevalence of AF in both sexes. In men, low daily intake (< 2 drinks/day) (OR 1.21, 95% CI 1.09-1.34) and low lifetime consumption (< 65 drink-years) (OR 1.22, 95% CI 1.10-1.36) were linked to prevalent AF, but this was not observed in women. Significant sex interactions were found in the relationship between alcohol intake and prevalent AF (drinking frequency and lifetime total intake).

This large-scale study did not find that men had a lower risk of prevalent AF at lower levels of alcohol consumption compared to women. The more lenient alcohol consumption limits currently applied to men, relative to women, may warrant reconsideration, the researchers suggest.

Source: Matsunaga-Lee Y, Egami Y, Sugino A, Kobayashi N, Abe M, Nohara H, Kawanami S, Yasumoto K, Okamoto N, Yano M, & Nishino M. (2025) Sex differences in impacts of alcohol consumption on prevalent atrial fibrillation. Journal of Arrhythmias, 41(4):e70169. doi.org/ 10.1002/joa3.70169

Alcohol consumption and immune cell profiles: Insights from the Framingham Heart Study

Alcohol consumption influences immune function, with excessive intake linked to immune suppression and inflammation. However, its effect on immune cell phenotypes remains uncertain. A study explored the relationship between alcohol consumption and immune cell profiles in a Framingham Heart Study (FHS) cohort, while also examining sex-specific differences in the associations between alcohol and immune cells.

The researchers analysed data from 996 participants of the FHS Offspring cohort who underwent immune cell phenotyping and completed an alcohol questionnaire during Exam 7 (1998-2001). Alcohol intake was categorised as abstainer, moderate, at-risk, or heavy drinking. Associations between alcohol intake and 15 immune cell phenotypes were analysed, adjusting for age, sex, and Cytomegalovirus (CMV) (Model 1) and additional covariates (Model 2). False discovery rate (FDR) correction was applied for multiple testing.

The CD4+ Tn/Tm ratio measures the balance between naive (Tn) and memory (Tm) CD4+ T cells in the immune system, indicating the health and function of T-cell populations. A higher CD4+ Tn/Tm ratio typically shows more naive T cells relative to memory T cells, whereas a lower ratio suggests a larger proportion of memory cells. This ratio can be an indicator of immune health, immunosenescence (age-related immune decline), and disease progression or prognosis in conditions like cancer and viral infections. The CD8+ Tn/Tm ratio refers to the ratio of naive (Tn) to memory (Tm) CD8+ T cells in blood or tissue, with a higher ratio often signalling a healthier, less antigen-experienced immune system, as naive T cells have the ability to mount diverse immune responses. Conversely, a lower ratio, especially in chronic infections or ageing, can indicate more frequent immune encounters and potential signs of senescence or exhaustion.

The CD4+ Tn/Tm ratio demonstrated a significant nonlinear relationship with alcohol categories in Model 1, with higher ratios in moderate (β = 0.26) and at-risk drinkers (β = 0.26) compared to abstainers; effects were smaller in Model 2 (β = 0.23 and β = 0.23, respectively). Sex-stratified analyses showed that among males, alcohol consumption was linked to several immune cell phenotypes in Model 1, and to the CD8+ Tn/Tm ratio in Model 2, where moderate drinking was associated with a higher CD8+ Tn/Tm ratio compared to abstainers (β = 0.29). Among male drinkers, consumption level was also associated with the CD8+ Tn/Tm ratio in both models: at-risk and heavy consumption correlated with significantly lower CD8+ Tn/Tm ratios compared to moderate drinkers (β = -0.43 and β = -0.46, respectively, in Model 2).

Alcohol consumption shows a nonlinear relationship with certain immune cells, where moderate intake may benefit immunity, whereas higher consumption could disrupt immune homeostasis. The authors note that, due to the study's cross-sectional design, causality cannot be established; however, the sex-specific, dose-dependent findings deserve confirmation in longitudinal cohorts.

Source: Ragab AAY, Doyle MF, Chen J, Lunetta KL, & Murabito JM. (2025) Alcohol consumption and immune cell profiles: Insights from the Framingham Heart Study. Alcoholism: Clinical and Experimental Research (Hoboken). doi.org/10.1111/acer.70122.

Does paternal alcohol consumption affect the severity of traits of fetal alcohol spectrum disorders?

Animal models indicate that paternal alcohol consumption might affect offspring traits, but few human studies are available.

Data from population-based studies of fetal alcohol spectrum disorders (FASD) among first-year students provided case-control data to examine traits of fathers of children with: FASD, alcohol exposure, and unexposed controls.

The data showed that most males in this population drank, but more fathers of children with FASD drank during pregnancy ($\bar{x}$= 73.2%) than fathers of controls ($\bar{x}$ = 63.4%). Among drinkers, fathers of children with FASD: (a) consumed more drinks per occasion than controls ($\bar{x}$ = 11.5 vs. 9.7 for maternally exposed controls and 8.1 for maternally unexposed controls), (b) drank more frequently and binged, and (c) were reported to have had a drinking problem ($\bar{x}$ = 27.8% vs. $\bar{x}$= 18.8%). Partial correlations, controlling for maternal average drinks per drinking day (DDD) by trimester and maternal tobacco use, indicated a significant, negative association between paternal heavy/binge drinking (≥5) and child outcomes resulting in a significant reduction in child height, head circumference, and verbal IQ.

Categorical analysis of combined maternal and paternal drinking levels showed a significant average reduction in child height, head circumference, and verbal IQ percentile, and a significant increase in total dysmorphology score that was not observed without maternal drinking. The analysis of combined paternal and maternal drinking patterns also revealed that paternal drinking was not independently linked to child total dysmorphology scores or neurocognitive outcomes. Models considering maternal and paternal drinking were significant, but the primary and significant effects on total dysmorphology and neurocognitive outcomes were due to maternal alcohol consumption. Similarly, paternal alcohol consumption was not independently associated with an FASD diagnosis when accounting for prenatal maternal alcohol and tobacco use.

Paternal alcohol consumption was linked to an independent, negative impact on child height, head circumference, and verbal IQ. The study found that maternal drinking, in combination with heavy male drinking, was associated with more severe FASD outcomes.

Source: May, P.A., Hasken, J.M., Blankenship, J., Marais, A.-S., Gossage, J.P., Kalberg, W.O. et al. (2025) Does paternal alcohol consumption affect the severity of traits of fetal alcohol spectrum disorders? Alcohol: Clinical and Experimental Research, 49, 1716–1729. doi.org/10.1111/acer.70105

May sulfites in wine affect gut microbiota? An in vitro study of their digestion and interplay with wine polyphenols

Sulfites are widely used in the wine industry, but their effects on human health remain debated. A study examined the interaction between wine sulfites and gut microbiota under simulated gastrointestinal conditions. Using the simgi model, red and synthetic wines—with and without SO2 (200 mg/L)—underwent gastrointestinal digestion and colonic fermentation with faecal microbiota from three healthy donors. SO2-treated wines slightly altered gut microbiota composition, reducing beneficial bacteria like Bacteroides and Ruminococcus while increasing Coprococcus and pro-inflammatory Escherichia/Shigella, although the overall microbiome of each individual seemed to influence its resilience to SO2. These effects were partly mitigated in red wine, suggesting a protective role of wine polyphenols. Additionally, SO2 treatment in red wines enhanced phenolic metabolism in the gut, increasing low-molecular-weight phenolic compounds, such as valerolactones, which are bioavailable in the small intestine and colon. This pioneering study reveals a complex interplay between sulfites, wine components, and gut microbiota, with potential health implications, especially for sulfite-sensitive individuals.

Source: Relaño de la Guía E, Cueva C, Molinero N, Ruano A, Motilva MJ, Bartolomé B, & Moreno-Arribas MV. (2025) May sulfites in wine affect gut microbiota? An in vitro study of their digestion and interplay with wine polyphenols. Journal of Agriculture and Food Chemistry, 73(31):19397-19409. doi.org/10.1021/acs.jafc.5c02710.

Preconception alcohol consumption in both partners and risk of miscarriage

Is maternal or paternal alcohol consumption before conception linked to miscarriage risk? The Pregnancy Study Online (PRESTO) is an ongoing web-based prospective cohort study of couples trying to conceive. All primary data collection occurred through self-administered questionnaires. Baseline questionnaires from both partners gathered data on sociodemographics, medical history, anthropometrics, and lifestyle factors, including preconception alcohol consumption. Female participants provided data on pregnancy outcomes in follow-up questionnaires. Cox proportional hazards regression models were employed to estimate hazard ratios and 95% confidence intervals (95% CI) for the association between preconception alcohol consumption in both partners and miscarriage rate.

The study included 9,414 female (average age 30 years) and 2,613 male (average age 32 years) participants. About 27% of the female participants reported no preconception alcohol use, compared to 20% of males. Approximately 20% of pregnancies ended in miscarriage. After adjusting for demographic, lifestyle, and reproductive variables, no significant association was observed between preconception alcohol intake and miscarriage. In the couples-based analysis of the relationship between miscarriage and preconception alcohol use, compared with female participants who reported no alcohol intake, the hazard ratios for those reporting 0.1-6.9, 7-13.9, and ≥14 drinks per week were 0.91 (95% CI 0.74-1.13), 1.06 (95% CI 0.77-1.46), and 0.80 (95% CI 0.43-1.52), respectively; for males, the hazard ratios were 0.94 (95% CI 0.74-1.19), 0.93 (95% CI 0.70-1.25), and 0.84 (95% CI 0.59-1.19), respectively. Results were consistent across types of alcohol (wine, spirits, beer) and within subgroups based on age, history of miscarriage, and gestational age.

Source: Eisenberg ML, Scott M, Seranio N, Zhang CA, Glover F, Ha AS, Hatch EE, Rothman KJ, Wang TR, Wesselink AK, & Wise LA. (2025) Preconception alcohol consumption in both partners and risk of miscarriage. Reproductive Biomedicine Online, 51(2):104698. doi.org/10.1016/j.rbmo.2024.104698.

Alcohol consumption and carotid intima-media thickness in different genders

The role of alcohol consumption as an independent risk factor for Cardiovascular Disease (CVD) remains debated. Carotid intima-media thickness (CIMT) is a key biomarker for atherosclerosis and cardiovascular risk. A study investigated the impact of alcohol consumption on CIMT across genders and examined gender differences.

Data from 31,239 participants in the UK Biobank was analysed, categorising them by average weekly alcohol consumption into non-drinkers, former drinkers, light drinkers, moderate, and heavy drinkers. CIMT measurements were classified into quartiles. The associations between alcohol consumption (quantity and type) and CIMT in both men and women were examined.

Among males, moderate and heavy drinkers had fewer individuals in the lowest carotid intima-media thickness (CIMT) quartile compared to the highest quartile group, while never-drinkers males showed the opposite trend. Furthermore, the proportion of individuals in the highest CIMT quartile increased with higher alcohol consumption, although this association was not observed in females. Multivariable regression analysis revealed a significantly increased CIMT risk in moderate-to-heavy drinking (>112 g/week) males compared to never drinkers (OR 1.25, 95 % CI 1.02-1.55), but no such association was found in females (OR 1.05, 95 % CI 0.89-1.24). Beer plus cider consumption was linked to increased CIMT risk in men (OR 1.34, 95 % CI 1.05-1.70), whereas no protective effect was observed for red wine (OR 1.20, 95 % CI 0.95-1.51).

The authors state that, due to limitations inherent in their study design, the findings can only be considered as tentative conclusions, and establishing a causal relationship between alcohol consumption and CIMT is not possible. However, the findings indicate a gender-specific effect of alcohol on CIMT thickening risk, prompting further research.

Source: Sui Y, Zhang R, Liu G, Liu Y, Du Y, Zhang Y, Fu S, Nie Z, Qin H, & Ma L. (2025) Alcohol consumption and carotid intima-media thickness in different genders: A cross-sectional UK biobank study. International Journal of Cardiology, 439:133644. doi.org/10.1016/j.ijcard.2025.133644.

Healthy eating and physical activity significantly lower sex-specific alcohol-attributable liver mortality in the United States

The influence of diet quality (DQ) and physical activity (PA) on alcohol-related liver mortality remains insufficiently studied. In the Journal of Hepatology,researchers examine how DQ and PA affect alcohol-attributable liver mortality in the US.

Data from 60,334 adults in the National Health and Nutrition Examination Surveys (1984-2018) were analysed and linked to the National Death Index through 31 December 2019. Self-reported alcohol use, DQ (healthy eating index [HEI]), and physical activity levels were obtained. Participants were classified as light, moderate, or heavy drinkers based on NIAAA guidelines. Physically active participants reported at least 150 minutes of moderate-intensity physical activity, 75 minutes of vigorous-intensity physical activity, or a combination of both per week. A healthier diet was defined as being in the top quartile of HEI. The outcome was liver-related mortality.

During a 12.2-year follow-up, 252 liver-specific deaths were recorded. The average daily alcohol intake increased the risk of liver-specific mortality (adjusted sub-distribution hazard ratio [aSHR]-men: 1.04, 95% CI 1.01-1.06; women: 1.08, 95% CI 1.04-1.12) compared to abstainers. Binge drinking also elevated the risk of liver mortality (aSHR-men: 1.52, 95% CI 1.04-2.29; women: 2.52, 95% CI 1.44-4.41) compared to non-binge drinkers. Healthier dietary intake (top quartile of HEI) lowered liver mortality risk among non-heavy (aSHR: 0.35, 95% CI 0.13-0.90), heavy (aSHR: 0.14, 95% CI 0.04-0.82), and binge (aSHR: 0.16, 95% CI 0.06-0.46) drinkers compared to those with unhealthier diets (lower quartile of HEI). Physically active participants had reduced liver mortality risk among non-heavy (aSHR: 0.52, 95% CI 0.28-0.94), heavy (aSHR: 0.64, 95% CI 0.35-0.99), and binge (aSHR: 0.31, 95% CI 0.10-0.88) drinkers. Diets high in vegetables, fruits, whole grains, seafood, plant-based proteins, and unsaturated fats – and low in solid fats, alcohol, and added sugars – proved protective. The survival benefits of DQ and PA were notably greater in women than in men. Healthy eating and increased levels of PA significantly reduce the risk of alcohol-attributable liver-related mortality.

This study found that any amount of alcohol consumption and binge drinking are linked to a higher risk of liver-related mortality. Following healthy dietary patterns and engaging in increased physical activity reduce the risk of liver mortality across all drinking habits, including heavy and binge drinking.

Source: Vilar-Gomez E, Nephew Let al.. (2025) Healthy eating and physical activity significantly lower sex-specific alcohol-attributable liver mortality in the United States. Journal of Hepatology, S0168-8278(25)02334-7. doi.org/10.1016/j.jhep.2025.06.033.

Alcohol consumption behaviours and liver disease: Are there safer drinking practices?

With the global rise in alcohol consumption, the incidence of alcohol-associated liver disease (ALD) is increasing notably. However, not all individuals who drink alcohol develop ALD, indicating that various mediating factors influence this. Although sex, age, and genetic predisposition have been thoroughly studied, the effect of drinking patterns as direct behavioural factors remains relatively underexplored.

A narrative review synthesised existing evidence on how different drinking patterns, including the amount of alcohol consumption, drinking speed, frequency, duration, type of alcoholic beverage, and whether alcohol is consumed with meals, influence the onset and progression of ALD. Current research indicates that lower alcohol intake, slower drinking speed, reduced frequency, shorter duration of drinking, choosing fermented alcohol over distilled spirits, and consuming alcohol with meals can help reduce ALD risk. Nevertheless, abstaining from alcohol remains the most effective approach for preventing and managing ALD.

The findings provide actionable clinical insights and evidence-based recommendations to inform clinical practice and public health initiatives aimed at reducing ALD. Future research should focus on uncovering the underlying mechanisms of these patterns and evaluating their long-term effects to develop targeted interventions.

Source: Ding S, Lu S, Lv W, Hou F, Qi X, & Liu X. (2025) Alcohol consumption behaviors and liver disease: Is there a safer drinking practice? Medical Science Monitoring, 31:e948617. doi.org/10.12659/MSM.948617.

Study identifies a promising new strategy for treating alcohol use disorder

Existing pharmacological treatments for AUD are modestly effective and primarily target alcohol craving or withdrawal symptoms. Researchers have identified a promising new approach for treating alcohol use disorder (AUD). A novel study found that the dopamine-boosting drug tolcapone increases activity in the prefrontal cortex (PFC) during self-control tasks. Greater activation of the inferior frontal gyrus, part of the PFC, was linked to improved behavioural control and reduced alcohol consumption. The findings from the study, published in Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, suggest that medications with a similar mechanism could potentially be used to treat AUD in the future.

The study involved 64 participants with AUD who were randomly assigned to receive either tolcapone, an FDA-approved medication that increases dopamine in the PFC by suppressing catechol-O-methyltransferase (COMT), an enzyme that degrades dopamine, or a placebo for eight days. Participants completed a behavioural control task called a "stop signal" task while undergoing functional neuroimaging (fMRI), during which they had to try to stop themselves from pressing a button on certain trials. This task reliably elicits activation of regions of the PFC that underlie response inhibition. Analysis showed that tolcapone increased activation of cortical areas implicated in inhibitory control, as assessed by the fMRI blood oxygenation response.

Joseph P. Schacht, PhD, Senior Author in the Department of Psychiatry at the University of Colorado School of Medicine, commented, "Our study shifts the focus to 'rescuing' impaired inhibitory control, which is the brain's ability to stop unwanted thoughts or actions, a function often compromised in AUD. Our study suggests that medications that increase prefrontal dopamine are an important lead to pursue."

Lead author Drew E. Winters, PhD, Department of Psychiatry, University of Colorado School of Medicine, added, "Based on previous studies, we anticipated that greater inferior frontal gyrus activation would be associated with better behavioural control, but we were pleasantly surprised to find that it was also associated with reduced alcohol consumption. This association validates the importance of impaired control in the pathophysiology of AUD."

Source: Winters, D. E., & Schacht, J. P. (2025). Effects of COMT suppression in a randomized trial on the neural correlates of inhibitory processing among people with Alcohol Use Disorder. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging. doi.org/10.1016/j.bpsc.2025.06.003.

Medical research by publication date

Preconception alcohol consumption in both partners and risk of miscarriage. Published online 29 October 2024, Version of Record 24 July 2025.

Association between alcohol consumption and mortality in Parkinson's disease. Published 7 July 2025

Does paternal alcohol consumption affect the severity of traits of fetal alcohol spectrum disorders? Published 12 July 2025

Alcohol consumption and carotid intima-media thickness in different genders: A cross-sectional UK biobank study. Published online July 20 2025

May sulfites in wine affect gut microbiota? An in vitro study of their digestion and interplay with wine polyphenols. Published July 23 2025

Alcohol consumption and immune cell profiles: Insights from the Framingham Heart Study. Published 29 Jul 2025

Alcohol consumption behaviours and liver disease: Are there safer drinking practices? Published 31 July 2025

Sex differences in impacts of alcohol consumption on prevalent atrial fibrillation. Published 07 August 2025

Study identifies a promising new strategy for treating alcohol use disorder. Published 12 August 2025

Alcohol use and types and ischaemic stroke: a systematic review and meta-analysis. Published August 14 2025

The level of acute alcohol exposure during binge drinking associates with the extent of cardiac response. Published 19 August 2025

Cardiovascular and aortic wave reflection responses to evening binge alcohol consumption. Published 20 August 2025

Healthy eating and physical activity significantly lower sex-specific alcohol-attributable liver mortality in the United States. Published online 26 August 2025

Alcohol excise taxation, tax share and revenue in the European Union and the United Kingdom in 2022

Although increases in alcohol excise duties have been recognised as one of the 'best buys' by the World Health Organization to cut alcohol consumption and related harm, excise tax shares—the proportion of excise tax included in retail prices of alcoholic drinks—remain low in Europe. Revenue from alcohol excise duties, and how it is affected by changes in excise duties, has not yet been widely studied.

A research group examined revenue from alcohol excise taxes across all European Union (EU) countries and the United Kingdom between 2017 and 2022. They predicted tax revenue per capita based on the tax share, type of alcohol excise taxation, recorded and unrecorded consumption, and the prevalence of past-year drinking. To demonstrate the potential for revenue growth, a case study focusing on Germany was also conducted.

In 2022, average revenue from alcohol excise duty (119 euros per capita) and the excise tax share (17.3%) were low in EU countries and the United Kingdom but showed considerable variation. The relationship between the excise tax share and revenue from excise duty was very strong, with a Pearson correlation of 0.888 (0.720–0.958). In regression analyses, only the excise tax share significantly predicted tax revenue.

The researchers suggest that marked revenue gains could be made in several countries with low tax shares by increasing the excise tax share, with only minimal effects on consumer prices.

Source: Rehm J, Correia D, Hassan AS, et al. (2025) Alcohol excise taxation, tax share and revenue in the European Union and the United Kingdom in 2022: An overview and modelling analysis. Drug and Alcohol Review, 1–10, doi.org/10.1111/dar.70028.

A qualitative interview study on alcohol intoxication events in adolescents under 18 years old

Understanding the factors that influence alcohol consumption among adolescents is essential for creating effective strategies to reduce instances of alcohol intoxication in this age group. A study was conducted to investigate the experiences of adolescents who have experienced alcohol intoxication, aiming to gain a better understanding of their motivations and to inform the development of more effective prevention strategies.

The study involved adolescents under 18 years old admitted for alcohol intoxication at Reinier de Graaf Gasthuis in Delft, The Netherlands. Data from 24 semi-structured interviews, part of the "Youth and Alcohol" outpatient clinic's standardised follow-up programme, were analysed. In-depth interviews were conducted 1–2 months after the intoxication incident.

Four key themes emerged from the interviews: (1) the context of alcohol consumption, (2) drinking patterns, (3) consequences of alcohol intoxication, and (4) reflections and recommendations for prevention. A common observation was that many adolescents reported not recognising when they became intoxicated, often describing a "black-out" experience. During alcohol intoxication, they typically consume spirits in the evening or at night, usually in social settings with friends, driven by social and enhancement motives. The participants emphasised the importance of alcohol education, stricter advertising regulations, and stronger enforcement of alcohol laws as essential measures to reduce intoxication and mitigate alcohol's harmful effects in their community.

This research offers valuable insights into alcohol consumption patterns and effects in adolescents who experienced alcohol intoxication. It highlights the importance of customised prevention strategies, as suggested by the adolescents themselves, to effectively reduce alcohol intoxication in young people.

Source: Pigeaud LEM, van Hoof JJ, & van der Lely N. (2025) And then I blacked out - A qualitative interview study on alcohol intoxication events in adolescents under 18 years old. Drug and Alcohol Dependence, 274,112772, doi.org/10.1016/j.drugalcdep.2025.112772.

Targeting alcohol use in high-risk population groups: a US microsimulation study of beverage-specific pricing policies

Raising retail prices on alcoholic drinks preferred by high-risk groups (males, those of low socioeconomic status, and those with heavy alcohol consumption) might selectively decrease their alcohol intake. However, the varying effects of beverage-specific price hikes on different US population groups have not yet been studied. A study modelled the impact of beverage-specific price increases on alcohol use within subgroups of the adult US population defined by sex, education level, and alcohol consumption category.

An individual-level microsimulation of the US population (aged 18–79 years) was employed to model alcohol consumption from 2000 to 2019 based on individual characteristics (such as sex, age, race, ethnicity, and educational attainment as a proxy for socioeconomic status categorised as high school diploma or less, some college, and college degree or higher) and prior alcohol use.

Four national policy scenarios were compared with a reference scenario without any price change in 2019: a uniform price increase of 10% (scenario 1), a uniform price increase of 30% (scenario 2), a beverage-specific price increase of 30% for beer and spirits and 10% for wine (scenario 3), and a beverage-specific price increase of 50% for beer and spirits and 10% for wine (scenario 4). Effects on individual alcohol consumption were modelled using beverage-specific own-price elasticities.

Scenario 4 had the strongest impact on overall alcohol use and most effectively reduced consumption among high-risk groups: males and females with high alcohol consumption (more than 60 g of pure alcohol per day for males and 40 g for females) and those with low educational attainment (high school diploma or less) saw reductions of –17·30% (–17·62 g per day, credible interval [CI] –21·77 to –13·20) and –17·49% (–12·25 g per day, CI –14·72 to –9·58), respectively. In comparison, smaller relative changes were observed in groups at lower risk of harm.

The authors suggest that disproportionate increases in retail prices for the cheapest beverages, such as beer and spirits, could result in a larger decrease in consumption among high-risk groups. Pricing policies might therefore be employed as a potent public health measure to reduce the unequal alcohol-related burden of disease.

Source: Kilian C, Buckley C, Lemp JM, Kou X, Kerr WC, Mulia N, Purshouse RC, Rehm J, Probst C. (2025) Targeting alcohol use in high-risk population groups: a US microsimulation study of beverage-specific pricing policies, The Lancet Public Health, doi.org/10.1016/S2468-2667(25)00165-3.

Impulsive Decision Reduction Training (IDRT) reduces binge drinking and increases future orientation in young adult binge drinkers

This paper, published in the journal Addictive Behaviors, introduces Impulsive Decision Reduction Training (IDRT) as a "proof of concept" concerning its feasibility and preliminary outcome associations. IDRT is a novel, eight-week intervention aimed at reducing impulsive and risky decisions related to alcohol consumption and curbing excessive drinking. A pilot study was conducted with young adult college students who binge drink, comparing IDRT with a waitlist control condition. Twenty-five participants (13 women and 12 men) completed the eight-week IDRT intervention and were compared with 20 (6 women and 14 men) who completed assessments in the waitlist control group. IDRT was linked to significant and substantial increases in future orientation and the consideration of decision consequences. It also correlated with significant but modest reductions in drinking frequency and the maximum number of drinks consumed, though it did not affect the average alcohol quantity per occasion or delay discounting rates, compared to the waitlist control. IDRT shows some initial promise as an intervention targeting reductions in impulsive and risky drinking decisions and excessive alcohol consumption. Formal clinical trials should be conducted to more thoroughly evaluate IDRT's effectiveness in reducing excessive drinking.

Source: Finn PR, Smoker MP, Adams ZW, Marriott BR, Farmer EJ, Hulvershorn LA. (2025) Impulsive Decision Reduction Training (IDRT) reduces binge drinking and increases future orientation in young adult binge drinkers. Addictive Behaviours, 170:108443. doi.org/10.1016/j.addbeh.2025.108443.

Historical trends in young adult solitary alcohol use by age and sex from 1977 to 2022

Solitary alcohol consumption among young adults is a risky drinking behaviour linked to current and future alcohol use disorder (AUD) and adverse psychosocial outcomes. However, data on its prevalence and historical trends in the general population are limited. Researchers investigated historical patterns of solitary alcohol use among US young adults (aged 19–30) by age and sex over a 46-year span.

Data were obtained from the Monitoring the Future (MTF) Panel study conducted between 1977 and 2022. The sample consisted of 12,851 participants (51.6% female) who reported past-year alcohol consumption and completed surveys at ages 19/20, 21/22, 23/24, 25/26, 27/28, and 29/30. Solitary alcohol use was measured through self-reports of drinking alone in the past year. Trends over time in the prevalence of solitary alcohol use by age and sex were analysed.

Approximately 40% of those who used alcohol in the past year reported engaging in solitary alcohol consumption at least once during that period. Across all age groups, the prevalence of solitary alcohol use in the past year initially declined and then increased over time. Significant joinpoints indicated shifts in trends beginning in the mid-1990s to early 2000s, with increases more evident among females.

The prevalence of solitary alcohol consumption among US young adults has risen in recent decades, reaching levels similar to those seen in the late 1970s. Notable increases among females since the late 1990s and early 2000s have narrowed the traditional gender gap in this risky drinking behaviour. Given the link between solitary drinking and both current and future alcohol-related issues, the researchers emphasise the importance of ongoing monitoring of solitary alcohol use among young adults, particularly females.

Source: Creswell, K.G., Arterberry, B.J. & Patrick, M.E. (2025) Historical trends in young adult solitary alcohol use by age and sex from 1977 to 2022. Alcohol: Clinical and Experimental Research, 49, 1759–1767. doi.org/10.1111/acer.70103

Binge drinking trajectories across adolescence and early adulthood

Binge drinking is a common pattern of alcohol consumption among young people, with rates peaking during emerging and early adulthood. Regular binge drinking is a major risk factor not only for developing alcohol use disorders (AUDs) but also for higher chances of alcohol-related injuries and fatalities, making it a significant public health issue.

Changes in binge drinking throughout development are strongly linked to individual differences and shifts in impulsive personality traits, which are thought to be intermediate phenotypes related to genetic risk for heavy alcohol consumption and AUD. A study assessed how genetic influences on dual-systems impulsive personality traits (namely top-down [lack of self-control] and bottom-up [sensation seeking and urgency] constructs), alcohol intake, and AUD are uniquely related to changes over time in binge drinking and intoxication frequency during adolescence and early adulthood.

Associations were examined using conditional latent growth curve polygenic score (PGS) models across three independent longitudinal samples (N = 10,554). Results showed consistent links across all samples between sensation seeking PGSs and model intercepts (i.e., higher binge drinking frequency at the initial measurement) and alcohol consumption PGSs and model slopes (i.e., steeper increases towards peak binge drinking frequency). Urgency PGSs were not linked to changes in binge drinking or intoxication frequency in any sample. Overall, these findings demonstrate that genetic factors influencing sensation seeking and alcohol consumption account for distinct variation in the onset and progression of binge drinking during adolescence and emerging adulthood, underlining the complex genetic basis of these developmental process' trajectories.

Source: Miller AP, Spychala KM, Slutske WS, Fromme K, & Gizer IR. (2025) Binge drinking trajectories across adolescence and early adulthood: Associations with genetic influences for dual-systems impulsive personality traits, alcohol consumption, and alcohol use disorder. Journal of Psychopathology and Clinical Science, doi.org/10.1037/abn0001049.

Stability in health behaviour patterns in middle adulthood: a 19-year follow-up study

Researchers in Finland examined subgroups of adults with specific health behaviour patterns, their stability over 19 years, and the influence of sociodemographic and personality traits on these.

Data on smoking, alcohol consumption, and physical activity were collected at ages 42, 50, and 61 in the Jyväskylä Longitudinal Study of Personality and Social Development (n = 205-302). Latent class, latent transition, and logistic regression analyses were used.

Four similar classes of health behaviours were identified at each age. A class called low alcohol consumption (AC)-high physical activity (PA) included individuals with the lowest alcohol consumption and the highest physical activity levels, while a class called high AC-low PA consisted of those with opposite patterns. Intermediate classes involved non-smokers with the lowest proportion of smokers and smokers, respectively. Although some transitions occurred, class memberships were relatively stable. Women, married individuals, those with a degree, higher occupational status, and certain personality traits at age 42 were more likely to consistently belong to healthier classes compared to maintaining a stable membership in high AC-low PA.

The researchers conclude that health behaviours exist in patterns, are relatively stable across adulthood, and are associated with sociodemographic and personality characteristics.

Source: Ahola J, Kekäläinen T, Kinnunen ML, Tolvanen A, Pitkänen T, Pulkkinen L, Saajanaho M, Kokko K. (2025) Stability in health behavior patterns in middle adulthood: a 19-year follow-up study. Psychology and Health, 40(8):1282-1302. doi.org/10.1080/08870446.2024.2316676.

Prevalence and gender-specific correlates of hazardous and binge drinking among Swedish and Finnish older adults

Alcohol consumption is a major modifiable risk factor for various diseases and social harms worldwide. Older adults are susceptible to alcohol-related risks due to physiological changes, multimorbidity, and medication use; however, many continue to drink at high-risk levels. A study explored the prevalence and gender-specific factors associated with hazardous and heavy episodic drinking (HED) among Swedish and Finnish community-dwelling older adults.

Cross-sectional data from the 2021/2022 Gerontological Regional Database (GERDA) survey included 11,747 participants aged 65, 70, 75, 80, 85, and 90 years. Hazardous drinking was defined as an AUDIT-C score of four or more, and HED was defined as consuming six or more drinks on a single occasion at least monthly. Sociodemographic, psychosocial, functional status, and health-related factors were analysed, stratified by gender and considering regional differences.

Overall, 30.2% (95% CI, 29.0-31.4) of men and 9.8% (95% CI, 9.1-10.6) of women were classified as hazardous drinkers. HED prevalence was 13.0% (95% CI, 12.1-13.9) in men and 2.9% (95% CI, 2.5-3.3) in women. Hazardous drinking and HED in women were linked to higher socioeconomic status and psychosocial stressors, such as depression and bereavement, while functional and health-related factors were key predictors of problematic alcohol use in men. Across both genders, religious participation acted as a protective factor, whereas self-reported cardiovascular disease was associated with a greater risk of hazardous drinking.

Hazardous issues are common among older adults in Sweden and Finland, with some regional differences and notable gender disparities in associated risk factors. There is a need for interventions that focus on building resilience to psychosocial stressors and ensuring older adults receive clear, consistent health communication about the harmful effects of alcohol on cardiovascular and overall health.

Source: Jemberie WB, Niklasson J, Lönnroth K, & Boman E. (2025) Prevalence and gender-specific correlates of hazardous and binge drinking among Swedish and Finnish older adults. Alcoholism: Clinical and Experimental Research (Hoboken), 49(8):1744-1758. doi.org/10.1111/acer.70098.

Normalisation of non-drinking and implications for psycho-social problems

A few decades ago, non-drinking was uncommon among young people in many countries, and non-drinkers typically reported more psychosocial problems than moderate drinkers. Since then, non-drinking has become widespread among Norwegian adolescents. Given this normalisation of non-drinking, the study examined: (i) whether psychosocial problems still differ between non-drinkers, moderate drinkers, and heavy drinkers; and (ii) whether psychosocial problems vary by parental drinking status among non-drinkers and moderate drinkers.

Data originate from the European School Survey Project on Alcohol and Other Drugs (ESPAD). The Norwegian 2024 subsample included 3471 15–16-year-olds. Psycho-social issues encompassed anxiety, depressive symptoms, and limited social support from friends and family. Parental drinking status differentiated between families with at least one non-drinking parent and those where both parents were drinkers. Mean values for non-drinkers (46% of the sample) were compared to those of moderate (42%) and heavy drinkers (12%) using analysis of variance and F-tests.

Compared to moderate drinkers, non-drinkers reported significantly fewer anxiety and depressive symptoms, and significantly better social support from family and friends, whereas heavy drinkers reported significantly more psychosocial problems. Amongst non-drinkers, there was no significant difference in psychosocial problems based on parental drinking status. Amongst moderate drinkers, those with non-drinking parents reported significantly poorer support from friends and family than others.

This study provided empirical support for the hypothesis that, in a context of normalised non-drinking among adolescents, psycho-social deviance among non-drinkers is not observed.

Source: Bye EK, Rossow I, & Moan IS. *(2025) Normalisation of non-drinking and implications for psycho-social problems. Drug and Alcohol Review, 1–7, doi.org/10.1111/dar.70031.

Examining graduate student drinking patterns and normative misperceptions

Approximately 85% of graduate students consume alcohol and remain at high risk for problematic use. However, misperceptions about their drinking patterns among graduate students remain understudied. A study, published in the journal Substance Use and Misuse, aimed to 1) describe graduate student drinking behaviours and 2) investigate discrepancies between descriptive and injunctive norms.

Researchers recruited 330 students for the study via social media. Participants completed a cross-sectional online survey assessing alcohol use patterns.

On average, graduate students consume 8.7 drinks per week. Female graduate students overestimated how many drinks their peers consumed weekly and underestimated the days their peers drank. However, they accurately perceived the typical drinks per occasion and what their peers considered acceptable per week. Male graduate students underestimated how many days their peers drank each week but accurately perceived the number of drinks their peers consumed weekly, the typical drinks per occasion, and what their peers thought was acceptable per week.

The study revealed that postgraduate students, particularly women, have normative misperceptions about their peers' descriptive norms. It concluded that personalized normative feedback (PNF) interventions that employ descriptive norms may be especially effective for female postgraduate students engaged in heavy drinking.

Source: Shank F, Korovich M, Pakan E, Jones MC, & Angelone DJ. (2025) Examining graduate student drinking patterns and normative misperceptions. Substance Use and Misuse, 1-7. doi.org/10.1080/10826084.2025.2531550.

Alcohol use severity among Hispanic college students: examining social media discrimination, drinking motives, and resilience in a stress and coping framework

Exposure to racial and ethnic discrimination (RED) is positively linked to alcohol-related outcomes among Hispanics; however, the connection between RED and alcohol use is not well understood, especially when considering RED on social media.

The study aimed to (1) examine the direct and indirect relationships between RED on social media and alcohol use severity (i.e., AUDIT total score) through coping drinking motives (a form of negative reinforcement where an individual uses alcohol to alleviate or regulate negative emotions) among Hispanic emerging adult college students, and (2) determine whether psychological resilience moderates the direct and indirect links of social media discrimination with alcohol use severity. A convenience sample of 423 Hispanic college students from Texas and Florida completed a cross-sectional online survey. Data were analysed using a conditional process analysis.

Social media discrimination was not directly linked to the severity of alcohol use, but it did have a statistically significant indirect link through coping drinking motives (β = .08, 95% CI = [.03, .13]). Additionally, psychological resilience acted as a moderator that lessened the indirect link between social media discrimination and alcohol use severity (β = -.14, 95% CI=[-.23, -.05]).

The study authors state that their conditional process analysis could assist in guiding etiological studies on RED and alcohol consumption. The data imply that psychological resilience and coping drinking motives might be important constructs for interventions aiming to reduce the link between RED and alcohol use.

Source: Cano MÁ, Caetano R, Keum BT, Cobb CL, Lewis MA, Litt DM, & Walters ST. (2025) Alcohol use severity among Hispanic college students: examining social media discrimination, drinking motives, and resilience in a stress and coping framework. American Journal of Drug and Alcohol Abuse, 1-10. doi.org/10.1080/00952990.2025.2534965.

Social and Policy research by publication date

Stability in health behaviour patterns in middle adulthood: a 19-year follow-up study. Published online 22 Feb 2025.

Historical trends in young adult solitary alcohol use by age and sex from 1977 to 2022. Published 27 June 2025.

And then I blacked out - A qualitative interview study on alcohol intoxication events in adolescents under 18 years old. Available online 27 June 2025, Version of Record 4 July 2025.

Examining graduate student drinking patterns and normative misperceptions. Published online 14 Jul 2025.

Impulsive Decision Reduction Training (IDRT) reduces binge drinking and increases future orientation in young adult binge drinkers. Available online 23 July 2025, Version of Record 28 July 2025.

Prevalence and gender-specific correlates of hazardous and binge drinking among Swedish and Finnish older adults. Published 01 August 2025.

Alcohol use severity among Hispanic college students: examining social media discrimination, drinking motives, and resilience in a stress and coping framework. Published online 15 August 2025.

Binge drinking trajectories across adolescence and early adulthood: Associations with genetic influences for dual-systems impulsive personality traits, alcohol consumption, and alcohol use disorder. Published 21 August 2025.

Targeting alcohol use in high-risk population groups: a US microsimulation study of beverage-specific pricing policies. Published 27 August 2025.

Alcohol excise taxation, tax share and revenue in the European Union and the United Kingdom in 2022. Published 28 August 2025.

Normalisation of non-drinking and implications for psycho-social problems. Published online 03 September 2025.

New modelling of alcohol pricing policies, alcohol consumption and harm in Wales

A report published by the Welsh government in late July presents the results of a technical study focused on modelling work to inform a review of the 50p per unit threshold for the Minimum Price for Alcohol (MPA) policy currently in place in Wales since 2020.

The study provides updated modelling data for Wales on the likely impacts of continuing with Minimum Price for Alcohol legislation beyond the period covered by the current legislation.

The research builds on existing modelling work for Wales and more recent work in Scotland, to assess the population impact of a range of alternative options regarding the current 50p minimum unit price, incorporating new data. Estimates from an updated version of the Sheffield Tobacco and Alcohol Policy Model for Wales suggest that:

- Raising the MPA threshold from its current level of 50p per unit would lead to further reductions in alcohol consumption and related harm, especially among the most deprived groups;
- Lowering the MPA threshold or removing MPA altogether would cause increased alcohol consumption and harms thereby widening health inequalities; and
- Much higher alcohol duty rates would be needed to achieve the same reductions in alcohol-specific deaths as increasing the MPA level, and raising duty does not lessen health inequalities to the same extent.

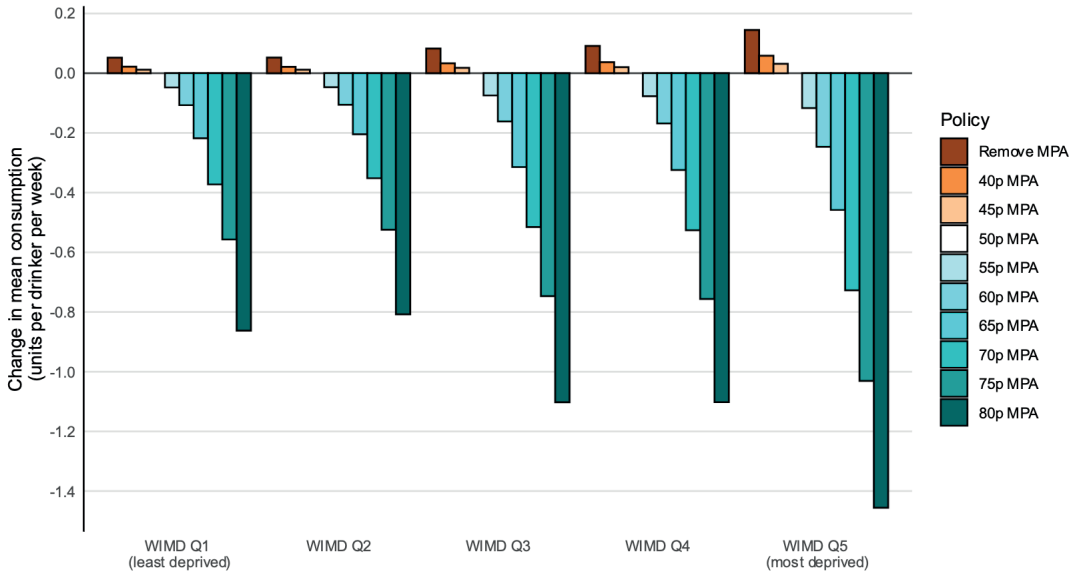
Implementing a mechanism to uprate the MPA threshold in line with inflation is crucial to prevent increases in alcohol consumption and related harms as the real-terms value of the MPA diminishes over time.

gov.wales/new-modelling-alcohol-pricing-policies-alcohol-consumption-and-harm-wales-summary-html

On 6 August, the Welsh Government initiated a consultation on increasing the Minimum Unit Price (MUP) for alcohol from 50p to 65p per unit and extending the policy beyond March 2026 to address alcohol-related harm further. Minister for Mental Health and Wellbeing Sarah Murphy highlighted that inflation and the cost-of-living crisis have diminished the effectiveness of the current rate, reducing its real value to approximately 39p. Independent evaluations suggest the policy has already yielded positive results, but the government maintains a review is necessary to ensure it continues to influence the price of cheap alcohol. The consultation remains open until 29 September.

gov.wales/consultation-raising-minimum-alcohol-price-wales

Figure 10 Modelled impacts of removing or changing the MPA threshold on alcohol consumption in 2026 by WIMD quintile



Call for an end to industry influence on youth education

In August, 58 organisations – including prominent academics, health charities, and advocacy groups – wrote to the Education Secretary, urging the UK government to protect children from misleading and harmful classroom materials funded by unhealthy product industries. The letter warns that resources are being used in schools to teach children about harms caused by the very companies producing these harmful products. Evidence shows such materials routinely misrepresent evidence, normalise harmful behaviours, and shift responsibility for harm onto individuals, including children. Chris van Tulleken, Professor of Infectious Disease and Global Health at University College London, said: "We wouldn't let Big Tobacco teach children about smoking. So why are we allowing the alcohol, gambling, and junk food industries into classrooms? Allowing these industries into schools distorts learning and helps industry establish the next generation of customers".

The group is calling on the government to issue clear guidance – as Ireland has done – stipulating that schools must avoid using materials funded by harmful industries. They argue that all educational content on these topics must be developed, delivered, and evaluated independently, free from vested interests. The letter also urges the Department for Education to recognise its obligations under the UN Convention on the Rights of the Child, including recognising the right of the child to the enjoyment of the highest attainable standard of health – and to take concrete action to protect that right effectively.

Competition for university students promoting moderation

This November, spiritsEUROPE will host the inaugural United in Moderation Award, recognising university students' creativity in developing responsible drinking campaigns. The award builds on the University Programme, launched in Spain in 2018, and subsequently expanded across Europe. To date, over 3,600 students from 20 universities across seven countries have participated.

For the inaugural award, 16 campaigns were submitted from six countries: Bulgaria, Croatia, Italy, Latvia, Slovakia, and Spain. Each entry reflects the passion and ingenuity of young people committed to promoting moderation and responsibility in alcohol consumption.

A diverse jury — including a student, an MEP, an academic, an influencer, and representatives from communications and the spirits sector — will evaluate the campaigns. They will score entries on creativity, scalability, impact, and an overall "Coup de Coeur" choice, with deliberations concluding in mid-September.

The top three teams will be invited to the awards ceremony on 19 November, where one will be crowned the first United in Moderation Award winner. SpiritsEUROPE will showcase outstanding campaigns in future updates, highlighting how students are redefining responsible drinking messages with fresh ideas and innovative approaches.

UK government considers new road safety measures

The UK government is set to introduce its first new road safety strategy in over ten years this autumn. As part of the strategy, England and Wales might see the drink-drive limit lowered from 35 to 22 micrograms of alcohol per 100 mL of breath, aligning with Scotland and most of Europe. Motoring groups and campaigners have pointed out the absence of a Graduated Driver Licensing (GDL) system, which would restrict new drivers in high-risk situations. The new strategy also involves establishing the UK's first Road Safety Investigation Branch (RSIB) to learn from crashes and inform future policy decisions.

In an IAS blog, responding to the UK government's proposed changes to reduce the drink drive limit in England and Wales, Jem Roberts and Dr Katherine Severi analyse the evidence and address common counterarguments.

ias.org.uk/2025/08/26/why-england-and-wales-need-a-lower-drink-drive-limit/

Gallup consumption survey in the USA

Gallup's latest Consumption Habits survey indicates US alcohol consumption is at its lowest level since the 1950s. The proportion of adults reporting that they drink decreased from 62% in 2023 to 54% in 2025, marking three successive years of decline — the sharpest drop in Gallup's long-standing survey trend.

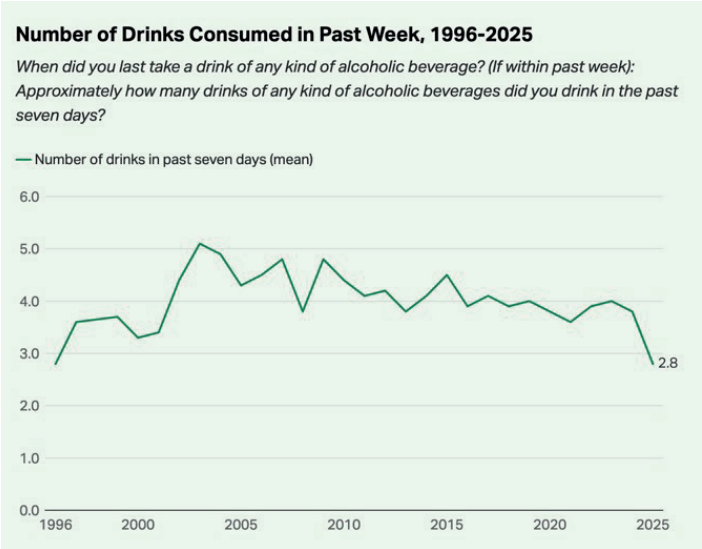
The decline is uneven across different groups. Women's reported drinking decreased by 11 points in just two years, compared to a five-point drop for men. Non-Hispanic White adults also experienced a sharp decline, while rates among people of colour remained steady at around 50%. Young adults, who were previously more likely to drink than older groups, have seen the steepest fall, with only half now reporting alcohol use. Political divides have also become apparent, with Republicans' drinking falling sharply while Democrats' rates stay stable steady.

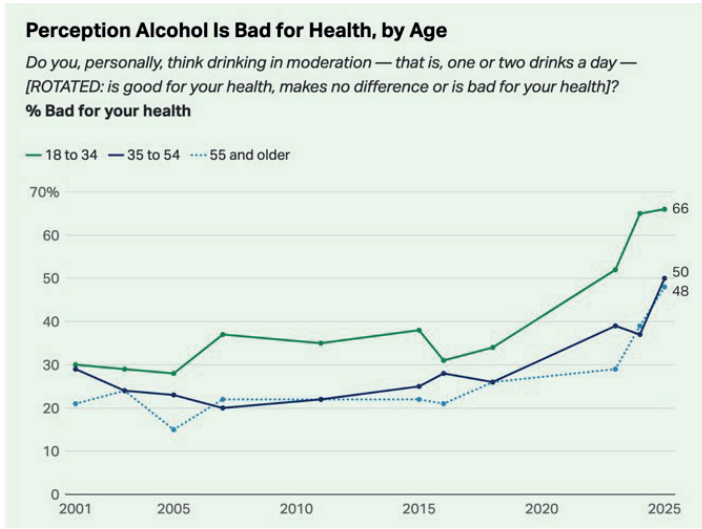
Importantly, the decline in drinking is not being balanced by increased marijuana use. Although cannabis use is more widespread today than a decade ago, rates have plateaued in recent years and show no signs of influencing the drop in alcohol consumption. Instead, the change seems linked to shifting attitudes towards alcohol's health risks. For the first time, a majority of Americans (53%) believe that even moderate drinking is harmful, compared to just 28% in 2018. Only 6% now consider moderate consumption as beneficial.

Young adults are driving this change in perception. About two-thirds now believe that moderate drinking is unhealthy, compared to lower levels among middle-aged and older adults, although concern is growing in those groups as well. Women, Democrats, and independents are also more likely than men or Republicans to say that moderate drinking is harmful. These changing attitudes are affecting behaviours: even those who still drink are doing so less often and in smaller amounts.

Gallup finds a record-low 24% of drinkers had alcohol within the past day, and 40% say it has been more than a week since their last drink. Average weekly consumption has fallen to 2.8 drinks, the lowest since 1996. Health-conscious drinkers not only consume less frequently but also drink fewer servings than their less-concerned counterparts. While beer remains the most popular alcoholic beverage overall, sharp gender divides persist. Men overwhelmingly prefer beer, while women lean towards wine. Liquor consumption, once the least common, now rivals wine in popularity.

news.gallup.com/poll/353858/alcohol-consumption-low-end-recent-readings.aspx





Revised American Heart Association guidelines on hypertension

The American Heart Association (AHA) has revised its guidelines on hypertension. The guidelines suggest diet is key to control. Hypertension affects around one in every three adults worldwide. It is a risk factor for several health conditions, including heart attack, stroke, heart failure and kidney damage.

The new blood pressure guidelines feature several changes that highlight earlier assessment and intervention for elevated blood pressure. They emphasise the importance of lifestyle modifications to help control blood pressure, such as reducing sodium and alcohol intake, following a heart-healthy diet, staying physically active, and managing weight and stress.

To update their guidelines, the AHA conducted a thorough review of clinical studies, reviews, and other evidence related to hypertension published since February 2015. The full report is available in the journal, Hypertension. Key updates for 2025 include:

1. the goal of achieving a systolic blood pressure of 130 mmHg or below, and ideally 120 mmHg, for adults with high blood pressure;
2. more clear and robust evidence that intensive blood pressure lowering reduces the risk of cognitive decline and dementia;
3. In adults with an average blood pressure of 130/80 mm Hg or higher and a 10-year cardiovascular disease risk of less than 7.5% as determined by the PREVENT risk calculator, initiation of medication to lower blood pressure alongside lifestyle modifications is recommended if, after an initial 3- to 6-month trial of lifestyle changes only, the blood pressure remains at 130/80 mm Hg or higher;
4. recommendations to move towards an ideal limit of 1500 mg/day [milligrams per day] for sodium intake; and
5. advice to stop consuming, or at least to reduce alcohol consumption to less than 1 drink per day for women and less than 2 drinks per day for men, to prevent or treat elevated blood pressure hypertension.

newsroom.heart.org/news/new-high-blood-pressure-guideline-emphasizes-prevention-early-treatment-to-reduce-cvd-risk

The US National Highway Traffic Safety Administration launches annual 'Drive Sober or Get Pulled Over' enforcement campaign

The US Department of Transportation's National Highway Traffic Safety Administration (NHTSA) launched its annual Drive Sober or Get Pulled Over enforcement campaign in the lead-up to Labour Day weekend. Speaking at the campaign launch at the National Park Service's Netherlands Carillon in Arlington, Virginia, NHTSA Chief Counsel Peter Simshauser said, "Impaired driving is totally preventable, yet more than 12,000 people are killed each year because someone selfishly decides to drive under the influence. Law enforcement officers nationwide are joining us to help stop impaired drivers and save lives. Make the responsible choice ahead of Labour Day weekend and plan ahead—arrange for a sober ride home. Yours is not the only life at stake,"

Nearly one-third of all traffic crash fatalities in the US involve drunk drivers with a BAC at or above the legal limit of .08. Men aged 18-34 are most likely to be impaired drivers, and evening hours are the deadliest, with the rate of alcohol-impaired fatal crashes three times higher at night than during the day. NHTSA is supplementing the campaign with two additional messages. " Drive High, Get a DUI " reminds drivers that cannabis and other drugs impair their ability to drive safely and can result in an impaired-driving charge. Ride Sober or Get Pulled Over also reminds motorcyclists not to drink and ride. In 2023, 41% of riders who died in single-motorcycle crashes were impaired by alcohol. These efforts were supported by a national media campaign that ran through to 1 September, featuring adverts for TV, radio, and digital platforms, including social media. As part of the high-visibility enforcement campaign, law enforcement officers also increased patrols from 15 August through to 1 September to identify and stop impaired riders and drivers.

nhtsa.gov/press-releases/labor-day-drive-sober-kickoff-2025

New Zealand Government reforms to improve alcohol regulation

In August, the New Zealand Government unveiled proposed reforms to the Sale and Supply of Alcohol Act 2012, aiming to make alcohol regulation fairer and more practical while maintaining public safety. Associate Justice Minister Nicole McKee emphasised that most New Zealanders drink responsibly and should not face unnecessary penalties because of the minority who do not.

The reforms aim to remove outdated rules and excessive red tape, making the law easier to enforce. Compliance measures that serve little purpose in reducing harm will be eliminated, while safeguards in areas that minimise the risk of alcohol misuse will be strengthened.

Key changes include fairer licensing processes that limit objections from local communities while giving applicants the right to respond. District Licensing Committees will be required to adjust conditions under new Local Alcohol Policies instead of rejecting renewals outright. Rules for national televised events will also be modernised, allowing Ministers to declare them without passing new legislation each time.

Stronger protections are being introduced through enhanced age verification under the Government's Digital Identity Trust Framework and clearer rules for alcohol delivery services to prevent sales to minors or intoxicated individuals. Licensed premises will also be required to stock more zero- and low-alcohol alternatives, with updated definitions to reflect modern consumer preferences.

Local councils will continue to have their powers to control alcohol within communities, making sure decisions stay responsive to local concerns. Mrs McKee described the package as a "careful balance" that supports responsible drinkers and businesses while concentrating on areas where alcohol misuse can cause real harm.

beehive.govt.nz/release/government-reforms-improve-alcohol-regulation

NZ Ministry of Health forced to release documents showing alcohol lobby influence

Documents obtained by Radio New Zealand (RNZ) reveal that alcohol lobbyists worked to block or weaken measures such as higher taxes, reduced supply, and restrictions on sports sponsorship — even though the World Health Organisation (WHO) identifies these as some of the most effective strategies to reduce alcohol-related harm. The NZ Ministry of Health (MOH) only released the documents after an Ombudsman appeal, as it initially tried to withhold them.

The papers reveal that alcohol companies were consulted on the government's draft strategy to address Fetal Alcohol Spectrum Disorder (FASD), while the public was excluded. Spirits New Zealand dismissed expert estimates claiming up to 3,000 babies are born each year with FASD, calling them "not credible," and criticised a 2019 taxpayer-funded awareness campaign — despite it winning multiple awards. Advocacy groups condemned industry influence, stating that alcohol companies should have no role in shaping health policy. Health officials defended the engagement, with Deputy Director-General Andrew Old emphasising that companies had no veto power and were just one of many stakeholders consulted. However, he acknowledged that the industry's profit motive posed a clear conflict of interest, though he argued it was not impossible to reconcile.

Lobbyists also aimed to influence how the $16.6 million Alcohol Levy — a dedicated fund for harm reduction — was allocated. Emails reveal industry pressure against WHO's SAFER strategy, which advocates for policies like increasing excise taxes and restricting availability. Instead, organisations such as the Brewers Association promoted education-based approaches and warned against "punitive" restrictions or using levy funds to replace alcohol sponsorship in sport. Industry groups argued they supported targeted action but criticised broad public health campaigns, such as the award-winning Pre-Testie Bestie ads urging women not to drink during pregnancy. However, advocacy groups accused the industry of minimising harm to protect profits, citing its long-standing resistance to mandatory pregnancy warning labels. These revelations underscore ongoing tensions between public health priorities and alcohol industry influence on government policy.

Portuguese road safety initiative

In August, Portugal launched a new road safety campaign, "Taxa Zero ao Volante" (Zero Alcohol at the Wheel), to combat drink driving. Led by the National Road Safety Authority (ANSR) in partnership with PSP and GNR police, the initiative combined awareness-raising events with nationwide roadside checks on high-traffic and high-risk roads, including in the Azores and Madeira.

The campaign involved targeted operations in several regions, such as Guarda, Elvas, Portalegre, and Tomar. These checkpoints aim to directly engage drivers while discouraging those who might consider driving after drinking.

In Portugal in 2023, one in four drivers killed in road crashes had blood alcohol levels above the legal limit, and three out of four exceeded 1.2 g/l. Nearly a quarter of all road accident victims also had alcohol in their system. The campaign is the eighth of 11 national road safety campaigns planned for 2025, in accordance with European guidelines.

Young people, alcohol and risk: A culture of caution

A recent book by an international team of authors discusses the social, cultural, and economic changes that have come with the decline in youth alcohol consumption observed in many high-income countries since the early 2000s. This trend indicates a global shift in how young people think about and engage with alcohol. The book is structured around social generations and risk, using interviews, survey data, and international literature to examine topics related to the decrease in young people's alcohol use. Drawing on theories of social generations, social practice, and risk, they suggest that young people today form a unique socio-historical generation with a distinctly different approach to alcohol consumption and other social practices.

routledge.com/Young-People-Alcohol-and-Risk-A-Culture-of-Caution/Pennay-Caluzzi-Fenton-Holmes-Livingston-Raninen-Torronen/p/book/9781032542836?

UN weakens proposed health rules on sugary drinks, tobacco, and alcohol

A draft UN declaration initially calling for sugar taxes, tobacco plain packaging, and alcohol ad bans has been diluted before a General Assembly vote in September. The revised language now indicates that countries "consider" certain taxes or regulations, removing clear mandates aligned with World Health Organization recommendations. Public health experts warn that the weakened draft fails to hold industries accountable and weakens global efforts to reduce preventable deaths from cancer, heart disease, diabetes, and more.

Lindsey Smith Taillie, a nutrition epidemiologist at the University of North Carolina's Gillings School of Global Public Health, remarked, "By diluting this language and making it less specific, they're providing a ton of wiggle room for the food industry to essentially prevent meaningful regulation."

Amended alcohol control bill in Thailand

In Thailand, the Senate has approved the amended Alcohol Control Bill, relaxing restrictions on alcohol-related communication and providing greater support for local brewers and small-scale producers. The bill, which comprises 44 sections, passed its second and third readings in August with 104 votes in favour out of 119. It was also approved overwhelmingly by the House of Representatives in March. Although approved without changes by the drafting committee, ten sections were flagged for potential amendments and further comment in a report by the committee.

Senator Pornchai Witayalerdpan opposed a provision allowing alcohol business operators or stakeholders to join the Alcohol Control Board. He argued that their inclusion would create a conflict of interest, potentially enabling the industry to influence regulations that should remain impartial according to the principles of good governance and public law.

Senator Noraset Pratchayakorn emphasised that amendments should find a balance between economic opportunity and protecting public health, especially for young people.

bangkokpost.com/thailand/general/3081706/senate-approves-eased-alcohol-rules.

New rules for alcohol advertising in Kenya

The National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA) on 30 July released new advertising restrictions in the National Policy for the Prevention, Management and Control of Alcohol, Drugs and Substance Abuse (2025) report, banning celebrities and social media influencers from promoting alcoholic beverages. NACADA emphasised that its newly launched national policy does not impose any legal bans but instead sets out proposed guidelines aimed at reducing substance abuse in the country.

The report by NACADA targets deceptive alcohol marketing practices and aims to protect minors from harmful exposure. One of the key regulations is the Watershed Ban, which prevents alcohol advertisements on audio-visual platforms between 5:00 a.m. and 10:00 p.m. including broadcasts from outside Kenya. The policy also bans Celebrity and Influencer Endorsements, effectively stopping alcohol brands from using celebrities, media personalities, influencers, or sports figures in promotional content.

Any individual featured in such advertisements must be at least 25 years old. NACADA also prohibited Lifestyle Marketing, where alcohol is associated with success, attractiveness, popularity, or social status. To protect minors, the policy forbids alcohol branding on children's merchandise, such as toys, school supplies, and clothing. Digital Advertising Restrictions also apply, banning online and social media alcohol promotions, including those originating outside Kenya. Promotions offering free samples, discounts, or prize incentives that encourage consumption have also been prohibited.

Also in Kenya, the government has proposed to increasing the legal drinking age from 18 to 21 as part of a new National Policy on Alcohol, Drugs and Substance Abuse, aiming to reduce youth substance abuse. This policy also enforces a ban on online sales, home delivery, and sales in supermarkets and restaurants, limiting alcohol availability to licensed bars and pubs.

The Trump administration criticised double standards when it comes to the alcohol industry

A Vox report reveals that the Trump administration chose not to publish the final version of the Alcohol Intake and Health Study. Commissioned in 2022 by the Biden administration through the Interagency Coordinating Committee on the Prevention of Underage Drinking—which includes agencies such as the CDC—the study investigated health risks associated with alcohol consumption. According to Vox, the study's co-authors were informed in August that their final report would not be released. The findings reportedly indicate links between alcohol consumption and increased risks of diseases, including cancer.

vox.com/health/460086/rfk-jr-trump-maha-cancer-alcohol-study-health

Mozambique regulates production, sale and consumption of alcohol

Mozambique's government has approved regulations on the production, sale and consumption of alcoholic beverages in the country, to reduce the "harmful effects" of alcohol and "safeguard consumer rights".

Mozambique's government has temporarily halted the issuing of licences for the production and sale of alcoholic beverages, with the Ministry of Economy stating that the measure aims to curb the growth of establishments producing and selling alcohol, particularly "in the vicinity of educational institutions" and to lessen the "harmful effects of drinking," especially among young people.

Liquor policy in Andhra Pradesh

The Andhra Pradesh government will implement a new liquor policy from September 1, shifting its focus from revenue generation to public safety, with Chief Minister N Chandrababu Naidu emphasising the need for quality liquor and reduced health risks. The policy introduces a lottery system for bar licences, with fees tiered according to population size, and allocates 10% of licences for backwards classes to promote social inclusion.

AIM – Alcohol in Moderation was founded in 1991 as an independent not for profit organisation whose role is to communicate "The Responsible Drinking Message" and to summarise and log relevant research, legislation, policy and campaigns regarding alcohol, health, social and policy issues.

AIM Mission Statement

- To work internationally to disseminate accurate social, scientific and medical research concerning responsible and moderate drinking
- To strive to ensure that alcohol is consumed responsibly and in moderation
- To encourage informed and balanced debate on alcohol, health and social issues
- To communicate and publicise relevant medical and scientific research in a clear and concise format, contributed to by AIM's Council of 20 Professors and Specialists
- To publish information via www.alcoholinmoderation.com on moderate drinking and health, social and policy issues – comprehensively indexed and fully searchable without charge
- To educate consumers on responsible drinking and related health issues via drinkingandyou.com and publications, based on national government guidelines enabling consumers to make informed choices regarding drinking
- To inform and educate those working in the beverage alcohol industry regarding the responsible production, marketing, sale and promotion of alcohol
- To distribute AIM Digest Online without charge to policy makers, legislators and researchers involved in alcohol issues
- To direct enquiries towards full, peer reviewed or referenced sources of information and statistics where possible
- To work with organisations, companies and associations to create programmes, materials or policies that communicate responsible alcohol consumption messages or work to reduce alcohol related harm.

AIM Social, Scientific and Medical Council