

# Low Risk Alcohol Consumption Thresholds

*Update on the risks related to alcohol consumption levels,  
consumption patterns and type of alcoholic beverages*

## Executive Summary

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Spain, 2021

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- Directorate General of Public Health. Spanish Ministry of Health.
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### **Bibliography**

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# LOW RISK ALCOHOL CONSUMPTION THRESHOLDS

## Executive summary

Alcohol is the highest consumed psychoactive substance in Spain. In 2017, 91% of the country's population between the ages of 15 and 64 reported having consumed alcoholic beverages sometime in their lives (94% of men and 89% of women) and 63% reported consumption in the previous 30 days (72% of men and 54% of women).<sup>[1]</sup> Regular consumption is double among men (one of every two) than women (one of every four).<sup>[2]</sup> Age at first drink is 14 years of age for both sexes.<sup>[3]</sup>

In Spain, alcohol consumption is the 4<sup>th</sup> health risk factor (i.e., contributor to a reduction of Disability-Adjusted Life Years or DALYs), being 2<sup>nd</sup> among women and 5<sup>th</sup> among men.<sup>[4]</sup> In addition, alcohol consumption resulted in 15,489 annual deaths between 2010 and 2017, 74% of those among men.<sup>[5]</sup>

Alcohol consumption is one of the main disease risk factors and the main one among 15 to 49 year-olds. In 2016, 3.8% of female deaths and 12.2% of male deaths were attributed to alcohol consumption worldwide.<sup>[6]</sup> Not surprisingly, given that alcohol consumption contributes to the development of over 200 health problems and injuries, including cardiovascular, liver, neuropsychiatric, and transmissible diseases, among others.<sup>[7]</sup> Additionally, solid evidence supports an association between alcohol consumption and certain types of cancer, including a positive dose-response relationship with the following ones: oral cavity, pharyngeal, laryngeal, esophageal, colorectal, breast (female), and hepatocarcinoma.<sup>[8-11]</sup> Thus, any level of consumption increases the risk. Further, alcohol is an addictive substance which may lead to dependency.

However, the impact of alcohol consumption goes beyond the health of the individual consuming it, since it can also cause damage to third parties (e.g., traffic accidents, violence, Fetal Alcohol Spectrum Disorders [FASDs]) as well as to the economy and the society overall (e.g., unemployment, violent behavior, productivity loss). In addition, the differential distribution of intake as well as its consequences, affects vulnerable groups the most, deepening socioeconomic, ethnic, age, and gender inequities.<sup>[12-14]</sup> In fact, the consequences of alcohol consumption on health as well as on the environment during infancy, may determine the rest of an individual's life.<sup>[12]</sup>

To reduce the damage produced by alcohol consumption is necessary to use a cross-disciplinary approach, according to international initiatives such as the Global Strategy to reduce the harmful use of alcohol<sup>[15]</sup> and World Health Organization (WHO) SAFER initiative.<sup>[16]</sup> Following suit, the Spanish Ministry of Health launched the Strategy for Health Promotion and Prevention in the National Health System<sup>[17]</sup> which includes approaching alcohol consumption as one of the main risk factors for the development of chronic or non-transmissible diseases. Further, the reduction of alcohol-related harm, especially among the youngest, is one of the National Strategy on Addiction 2017-2024.<sup>[18]</sup>

Within the framework of the united European Action to reduce alcohol-related harm (*Reducing Alcohol Related Harm, RARHA*)<sup>[19]</sup> it was confirmed that, as part of their national guidelines, many countries advised the reduction of consumption using the concept of “low risk” consumption, assuming that, for certain cancers, gastrointestinal diseases, and injuries, there is no safe consumption level.<sup>[20]</sup> The majority of low risk consumption thresholds from countries of similar sociocultural environment as ours are, so far, below Spain’s recommendations.<sup>[21]</sup>

Therefore, the Ministry of Health, in collaboration with a panel of experts, performed a review of literature of the available evidence by creating three working groups:

- 1) Estimation of the health risks and low risk thresholds for average alcohol consumption
- 2) Estimation of the health risks and low risk thresholds for binge drinking
- 3) Type of alcoholic beverages and differential effects on health

The objective of this document is to update the thresholds for low risk alcohol consumption, in order to reduce health problems, injuries, harm to others, and social and economic consequences attributable to alcohol consumption.

Based on the results and conclusions of this review of evidence, we elaborated the following key messages targeting healthy general population over 18 years of age.

Alcohol consumption	<p>There is no safe level of alcohol consumption.</p> <p>Not to drink alcohol is the only way of avoiding its damaging effects.</p> <p>Based on current scientific evidence, no health professional or institution should recommend its consumption as a way of improving any aspect of health.</p>
Thresholds for low risk average* alcohol consumption	<p>Set at 20 g/d (2 SDs**) for men and 10 g/d (1 SD) for women, acknowledging that any consumption at all carries risk.</p> <p>Consumption of alcohol above these limits is related to a greater mortality risk when compared to abstaining or drinking below the limits.</p> <p>Also, some international guidelines recommend alcohol-free days during the week.</p> <p>This information should be provided to anyone consuming alcohol.</p>
<i>Binge drinking</i> ***	<p>There is no such thing as low-risk binge drinking. Binge drinking is harmful, with consequences for the drinker’s health and their social environment.</p> <p>Thus, it must always be discouraged.</p>

\* Average consumption: usual consumption of an individual over a period of time, it usually refers to daily or weekly consumption.

\*\* Standard Drink (SD) of alcohol: In Spain, an SD equals 10 grams of alcohol which is, approximately, the usual content of a 100ml glass of 13% wine, 1 glass of 300 ml of 4% beer, or 30 ml of 40% liquor.

\*\*\* Binge Drinking: consumption of 60 or more grams of alcohol (6 SDs) for men and 40 or more grams (4 SDs) for women in one single occasion (usually lasting between 4 and 6 hours). During the session, individuals maintain certain degree of intoxication (alcohol level 0.8 g/l or above). <sup>[22]</sup>

Differential effects by type of drinks	<p>Despite containing substances with potential health benefits, epidemiological evidence fails to show wine and beer consumption having any particularly protective health effect such as the reduction of cardiometabolic risk or any other kind.</p> <p>At this point there is no scientific evidence to support the recommendation of certain alcoholic beverages ascribing them differential health benefits.</p>
At-risk alcohol consumption thresholds	<p>Currently, individuals are considered to present at-risk alcohol consumption if they meet at least one of the following criteria:</p> <ul style="list-style-type: none"> <li>- AUDIT Questionnaire: &gt; 7 points for men, &gt; 5 for women.</li> <li>- &gt; 40 g/d (4 SDs/day) for men and &gt; 20-25 g/d (2.0-2.5 SDs/day) for women.</li> </ul> <p>When a person reports consumption intakes above those considered at-risk, the health provider will proceed according to the recommendations found in the Ministry of Health’s manual Comprehensive Lifestyle Advice in Primary Care, Linked to Community Resources for Adult Populations.<sup>[21]</sup></p>
Specific sub-populations or special situations	<p>No alcohol consumption:</p> <ul style="list-style-type: none"> <li>- Individuals under 18 years of age</li> <li>- Pregnancy and breastfeeding</li> <li>- Driving a vehicle</li> <li>- Doing any other activities requiring concentration or psychomotor skills</li> <li>- Combined with other substances****</li> </ul> <p>It is recommended to avoid alcohol consumption or, at least, consulting a health professional first if:</p> <ul style="list-style-type: none"> <li>- Taking medicines that interact with alcohol</li> <li>- Presence of mental health issues</li> <li>- Family history of alcohol addiction</li> </ul>
Policy Development	<p>Consuming alcohol is not a decision made in a vacuum, but influenced by social determinants of health. Thus, it is necessary to develop coherent and cross-disciplinary public policies supporting environments where healthy choices are the easiest to make.</p> <p>To reduce inequities it is key to design and evaluate campaigns and interventions, considering the social gradient and other factors such as gender. Further, to ensure that policies benefit all social groups, especially the most underprivileged, any tools must tightly define their target population.</p>

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\*\*\*\* Any illicit substances should be avoided but, if consumed, combining it with alcohol or with other drugs must be avoided, as the risk for fatal and non-fatal events substantially increases.

In conclusion, not to drink alcohol is the only way of avoiding alcohol-related risks.<sup>[23,24]</sup> Thus, for non-drinkers the recommendation is not to start drinking. If already a drinker, the recommendation is to reduce consumption to at least below the low-risk thresholds, allowing for some alcohol-free days during the week and staying completely away from binge drinking. In other words, if you drink alcohol, “less is better”<sup>[25]</sup>. It is important to underscore that the risk of alcohol consumption is a continuum and that any intake entails certain risk. Therefore, the message of reducing alcohol consumption below the low risk thresholds, must not send the message that this consumption level is risk-free, which may incentivize non-drinkers to start consuming or those drinking below those thresholds to increase intake to match them.

True freedom of choice and reasoned decision-making require having access to true and complete information regarding benefits, risks, costs, and consequences of alcohol consumption to self and others. Thus, the purpose of this document is to provide an update of scientific evidence of all the risks assumed by an individual when drinking alcohol by establishing the threshold of consumption deemed low risk.



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