

WINE CONSUMPTION AND CANCER RISK

Short brief on scientific evidences



KEY MESSAGES¹

- There is no scientific data to support an increased risk of cancer when wine is consumed in moderation, with meals, as part of Mediterranean diet and as part of a healthy lifestyle.
- Cancer is a multi-factorial disease; the cancer risk cannot be evaluated in isolation.
- The assumption that there is “no safe level” is based on a single study which is misleading and simplistic. It fails to consider drinking patterns and other lifestyle factors.
- Preventive actions should be evidence-based, and it is fundamental to consider cancer risk within the context of the cultural, drinking, dietary and lifestyle habits.

Harmful consumption of alcohol and cancer risk

- There is clear evidence that regular heavy consumption of alcoholic beverages and binge drinking patterns are associated with increased morbidity and mortality from certain cancers, and particularly cancers of the upper aero-digestive tract.
- One of many meta-analyses relating the consumption of alcoholic beverages to all cancer mortality suggested that for heavy drinkers (>50 g alcohol/d), the relative risk of dying from any cancer was increased by 32%.²

Moderate wine consumption as part of Mediterranean Diet and cancer risk

- Cancer is a multi-factorial disease, the cancer risk cannot be evaluated in isolation, and studies suggest that lifestyle factors are important risk factors for cancer.³
- When examining the various components of the Mediterranean diet and which foods contributed to a reduced cancer risk in a **meta-analysis**⁴, the researchers have identified the moderate, but not excessive consumption of alcoholic beverages and predominantly wine, fruits, vegetables, and whole grains as principal protective components.



Alcohol consumption considered in isolation and cancer risk

- When reviewing the scientific evidence of the cancer risk with the moderate consumption of alcoholic beverages **in isolation**, a large **meta-analysis** concludes⁵ that the consumption of alcoholic beverages (up to 1 drink/day) was not associated with the risk of most of the common cancers, except for the relatively small increase in the incidence of breast cancer in women and colorectal cancer in men.
- However, we do not drink wine or alcoholic beverages in isolation, we eat other foods and have particular lifestyle habits and follow certain drinking patterns. When assessing the cancer risk of wine consumption, it is important to consider it within the context of the cultural, drinking, dietary and lifestyle habits. Only then, objective conclusions can be drawn.

FOCUS ON "THERE IS NO SAFE LEVEL", INTRODUCED BY THE LANCET PUBLICATION IN 2018

- BECA draft report would refer to a Global Burden of Diseases (GBD) study published by The Lancet in 2018⁶. According to the publication, even very moderate drinking is worse than not drinking at all. This conclusion seems to contradict a large body of other studies which have found that moderate drinking is associated with a healthier and longer life expectancy and lower cardiovascular events.
- The study showed several limitations which also have practical implications. It has also been criticised^{7,8,9} because it has flaws in its analysis.
- The modelling study is based on assumptions and does not take into consideration lifestyle, does not present all existing scientific evidence and cannot be the unique base for setting conclusions on alcohol consumption and cancer risk.

NO NEW FINDINGS - STUDY CONFIRMS J-CURVE

The study is not a new, independent study but a statistical model which is based on collected data from previous studies consequently it does not show any new scientific evidence, but confirms the results of previous studies: **This study does not suggest that drinking moderately will increase an individual's risk of disease or death** – it only presents correlations on a population level. It does confirm however, that excessive drinking carries many health risks.

These findings **do not invalidate previous epidemiological studies** that have found health benefits at low levels of consumption but **confirm these results (J-shaped curve)**.

SOME OF THE STUDY'S MAIN LIMITATIONS

Estimates instead of measurements

While it brings together a very large number of data sources, it nonetheless relies on assumptions to model figures for where data are lacking. i.e. the presented consumption levels are based on sales estimates.

Drinking pattern not considered

The pattern of drinking (regular moderate versus binge drinking), the drinking with or without food, the type of beverage, was not taken into consideration.

Theoretical determination of a "no safe level"

The concept of 'no safe level' is theoretical and arbitrarily set and could be applied to almost any activity or lifestyle factor.

1 All scientific references are extracted from the scientific document "[Wine consumption in the context of a healthy lifestyle and cancer risk](#)", prepared by the Wine Information Council.

2 Jin M et al, 2013, Alcohol drinking and all cancer mortality: a meta-analysis. *Ann*;24(3):807-16.

3 Kerr et al 2017 Kerr J et al, 2017, Physical activity, sedentary behaviour, diet, and cancer: an update and emerging new evidence, *Lancet Oncol*. 2017 Aug;18(8):e457-e471. doi: 10.1016/S1470-2045(17)30411-4.

4 Schwingshackl L et al, 2019, Mediterranean diet and health status: Active ingredients and pharmacological mechanisms, *Br J Pharmacol*. 2020;177:1241–1257. Eleftheriou D et al, 2018, Mediterranean diet and its components in relation to all-cause mortality: meta-analysis, *Br J Nutr*. 120, 1081.

5 Choi et al 2018 Light Alcohol Drinking and Risk of Cancer: A Meta-Analysis of Cohort Studies

6 Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016 - [https://www.thelancet.com/journals/lanct/article/PIIS0140-6736\(18\)31310-2/fulltext](https://www.thelancet.com/journals/lanct/article/PIIS0140-6736(18)31310-2/fulltext)

7 A limitation of genetic epidemiological analysis when associations are genuinely J-shaped illustrated using a prospective study of alcohol consumption and vascular disease. *International Journal of Epidemiology*, dyab162, <https://doi.org/10.1093/ije/dyab162>

8 <http://alcoholresearchforum.org/critique-219-a-global-overview-of-alcohol-consumption-and-health-3-september-2018/>

9 <https://bmcmecine.biomedcentral.com/articles/10.1186/s12916-018-1194-4>

10 Life is a risky affair wine/alcoholic beverages and disease: is a risk-free consumption possible? https://www.wineinformationcouncil.eu/index.php?option=com_k2&view=item&id=2767:life-is-a-risky-affair-wine-alcoholic-beverages-and-disease-is-a-risk-free-consumption-possible&Itemid=640

The information in this factsheet is intended to provide a summary of scientific research which has been carried out over the past twenty years, looking at multiple studies that review the relationship between wine consumption, in the context of a healthy lifestyle and cancer risk.

This document is not intended to promote or increase the consumption of wine, nor is it intended to encourage those who do not drink to start drinking.

Regarding drinking guidelines, CEEV recommends following the Wine in Moderation guidelines.

In case of any question about how to evaluate your individual cancer risk, it is advised that you consult a medical practitioner.