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for Responsible Drinking

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

Author (Year)	Total number of studies or cohorts	Same or lower risk	J-shaped risk curve	Former drinking is separated from lifetime abstention
Stockwell (2024)[1]	107 studies published between 1950s and 31 July 2021	✓	✗	✓
Zhao (2023)[2, 3]	107 studies published between 1950s and 31 July 2021	✓	✗	✓
Stockwell (2016)[2]	87 studies published between 1950s and 31 December 2014	✓	✗	✓
Fillmore (2006)	54 studies published between 1950s and mid-2004	✓	✗	✓
Di Castelnuovo (2023)	16 cohorts recruited as early as 1983 with up to 30 years of follow-up	✓	✓	✓
Di Castelnuovo (2022)	16 cohorts recruited as early as 1983 with up to 30 years of follow-up	✓	✓	✓
Hu et (2022)	3 cohorts recruited as early as 1998 with an average follow-up of 7.5 years	✓	✓	✗
Degerud (2020)	2 cohorts recruited between 1994 and 2002 with an average follow-up of 16.7 years	✓	✓	✗
Colpani (2018)[5]	59 studies published up to 29 February 2016	✓	✓	✗
Li (2018)	2 cohorts recruited as early as 1980 with an average follow-up of 34 years	✓	✓	✗
Wood (2018)	83 studies published up to 1 March 2017	✓	✓	✓
Perreault (2017)[1, 3]	8 cohorts recruited as early as 1994 with an average follow-up of 9.7 years	✓	✓	✓
Soedamah-Muthu (2013)	4 cohorts recruited as early as 1997 with an average follow-up of 9.7 years	✓	✓	✗
Bobak (2016)[3]	4 cohorts recruited as early as 2002 with an average follow-up of 6.9 years	✓	✓	✗
Zheng (2015)[3]	23 studies published through June 2014	✓	✓	✗

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Ferrari (2014)[1,3]	23 cohorts recruited as early as 1992 with an average follow-up of 12.6 years	✓	✓	✓
Sluik (2014)	23 cohorts recruited as early as 1992 with an avearage follow-up of 9.9 years	✓	✓	✗
Jayasekara (2014)[4]	9 studies published through August 2012	✓	✓	✓
Inoue (2012)[3]	6 cohorts recruited as early as 1988 with an average follow-up of 12.4 years	✓	✓	✓
Ronksley (2011)	31 studies published from 1950 through September 2009	✓	✓	✗
Gronbaek (2004)[1]	4 cohorts recruited as early as 1964 with up to 31 years of follow-up	✓	✓	✗
Gronbaek (2000)	8 cohorts recruited as early as 1964 with up to 31 years of follow-up	✓	✓	✗
Rehm (2001)[3]	59 studies published between 1975 and 2001	✓	✓	✗

KEY: ✓ **YES** ✗ **NO**

INCLUSION CRITERIA

This analysis included studies that met the following criteria:

- Study design: meta-analysis or pooled cohort
- Study population: must include a general population, rather than a subpopulation with an existing condition or diagnosis (for example, diabetes or hypertension patients)
- Exposure: must include total alcohol consumption (rather than beverage-specific results only) and provide estimates for different levels of alcohol consumption (rather than a single binary variable or a single dose-response estimate)
- Outcome: all-cause mortality
- Analysis: must contain a comparison of alcohol consumption to no alcohol consumption
- Publication date: 2000 to March 2025

Note: Many of the meta-analyses included in this table have similar inclusion criteria. Therefore, they include overlapping sets of individual research studies.

COLUMN NOTES

Total number of studies or cohorts: this total number reflects how many studies met the publication's inclusion criteria. The number of studies that authors used for the analyses or models represented in other columns may differ.

Same or lower risk: studies that found the risk for light-to-moderate alcohol consumption was the same or lower than the risk for no alcohol consumption.

J-shaped risk curve: studies that found a statistically significant lower risk for light-to-moderate alcohol consumption, compared to no alcohol consumption, but not necessarily a statistically significant higher risk for heavier alcohol consumption.

Former drinking is separated from lifetime abstention: studies that separate former drinking from lifetime abstention or no alcohol consumption are better able to control for consumers who may have reduced or quit drinking because of an illness, which may bias estimates of risk. Researchers may also test for this potential bias and present results from a combined no alcohol consumption group, if combining the two does not affect the results.

STUDY NOTES

[1] This study draws from the same study population as the ones listed below but may use a sub-sample of the study population, a larger sample of the study population, or a different analysis methodology.

[2] This study is an update of previously published meta-analyses (Stockwell et al., 2016, and Fillmore et al., 2006), which covers previously included studies, adds more recent studies, and refines coding manuals for data extractions.

[3] This study stratified its analysis by age, study population, race, sex, or a combination of those factors. The results of at least one subgroup analyses met the criteria for the same or lower risk compared to no alcohol consumption, a J-shaped risk curve, or separating former drinking from lifetime abstention as described in the notes.

[4] This study examines men only.

[5] This study examines women only.

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