



Will I live longer if I drink alcohol?

The AWRI helpdesk occasionally receives enquiries about the effect of alcohol consumption on longevity. This column provides answers to some questions about the relationship between alcohol consumption and other lifestyle factors on the risk of death from all causes, and some of the more common chronic diseases.



What evidence is available on the effect of alcohol consumption on all-cause mortality?

A study from the US Centers for Disease Control and Prevention (CDC) examined the relationship between four lifestyle behaviours and mortality in 16,598 individuals over 18 years. The four behaviours were: not smoking, eating a healthy diet, physical activity and moderate alcohol consumption (defined as less than 28g/day for men and less than 14g/day for women, which equates to 2.8 and 1.4 Australian 10g standard drinks, respectively). The number of behaviours adopted was inversely related to the risk of mortality. Compared with individuals who displayed none of the four behaviours (which included people who abstained from alcohol and those who consumed excessive amounts), those who had adopted all four experienced significantly reduced all-cause mortality, mortality from cancers, from cardiovascular diseases and from other causes. The study suggested that men and women who exhibited the four behaviours were 63% less likely to die, 66% less likely to die from cancer, 65% less likely to die from cardiovascular disease and 57% less likely to die from other causes. If only three behaviours were adopted, the reduction in risk was less significant.

Moderate alcohol consumption has also been reported as one of five behaviours associated with a reduced risk of coronary heart disease, irrespective of medication for high blood pressure or a high cholesterol concentration.

Is there any specific Australian evidence?

An Australian study examining 7989 individuals aged 65-83 years for five years showed results consistent with those of the CDC study. One of the eight lifestyle factors considered in this study was consumption of less than 20g alcohol/day, which is the current National Health and Medical Council recommendation for low lifetime risk of harm from drinking alcohol. Individuals adopting five or more of the lifestyle factors considered in the study had a lower risk of death from any cause within five years compared with those who adopted less than five. Importantly, this study showed that while most individuals already have some healthy habits, almost all could make changes to their diet and lifestyle to improve their health. The study did not suggest abstinence from alcohol; however, benefits from avoiding heavier alcohol consumption were inferred.

A subsequent Australian study of 24,159 individuals aged over 65 years also showed that almost daily regularity of low to moderate alcohol consumption conferred a lower risk of death from all causes over 10 years compared with abstainers or very occasional drinkers. Data from the *Australian Dubbo Study of the Elderly* showed that in addition to lower all-cause mortality, the risks of cardiovascular diseases, certain cancers, type 2 diabetes and dementia were decreased by any alcohol consumption. Any alcohol consumption decreased all-cause mortality by 18% for men and 23% for women.

Is there any specific evidence for older Australians?

In addition to lower mortality, it was found that women surviving to age 70 years and older who were moderate alcohol consumers generally had less disability and disease, and more signs of 'successful ageing'. For 'regular' moderate alcohol consumers (on five to seven days per week) there was an approximately 50% greater chance of such successful ageing compared with non-drinkers.

What are the effects of average lifetime alcohol consumption?

Peer-reviewed evidence, including from very recent studies, consistently shows that there is a j-shaped relationship between current alcohol consumption and death from all-causes for both men and women. This means that the risk of dying from any cause is lowest for moderate alcohol consumers, relative to both abstainers and heavy alcohol consumers. This relationship has been shown to also apply to average lifetime alcohol consumption. Measurement of average lifetime alcohol consumption avoids the possibility of bias that can occur when separating former drinkers from current drinkers.

The j-shaped relationship primarily reflects the reduced risk of cardiovascular diseases and particularly coronary heart disease - the current leading cause of death in Australia. When cancer is included in all-cause mortality calculations, the j-shaped relationship is maintained but is less significant.

This is because the dose-response relationship between alcohol and cancer is relatively linear rather than j-shaped. Some but not all studies, however, also show an overall reduced risk of cancers with lighter alcohol consumption compared with both abstinence and heavier consumption. The reduced risk of death from all causes from regular moderate alcohol consumption is also seen in an increase in life years, increase in life years free of cardiovascular disease, and increase in survival after onset of cardiovascular disease for both men and women.

Regular moderate alcohol consumption has consistently been shown to be additive to other healthy lifestyle factors in reducing the risk of death from all causes, such that the lowest risk always includes regular moderate alcohol consumption. Regular moderate alcohol consumption should, however, be considered as an important complement, but not an alternative, to other healthy lifestyle factors that lower the risk of chronic diseases. In addition, heavy alcohol consumption in younger years may make the j-shaped relationship between alcohol and risk of all-cause mortality less significant in men. Further research is needed on this effect. Moderation in all things appears to be the key to a long and healthy life.

Further reading

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