Stopping light drinking may increase death risk among healthy adults

Former drinkers, that is those who have stopped alcohol use, have higher mortality than lifelong abstainers. Higher mortality may be due to some disease, alcoholism or ending beneficial moderate drinking, which has been found to decrease mortality. To study the latter possibility former drinkers and light drinkers were compared. All-cause mortality relative risks (RR) were adjusted for baseline disease or self-rated health and major risk factors, Only three out of 87 studies had published data needed for this comparison.

First author, year Country, cohort, Light drinker, intake	Sex	Relative risk among former drinkers (light drinkers = 1) and 95 % confidence interval		Adjustments
Nakaya, 2004 Japan, Miyagi < 22,8 g/day	Men	1.71	1.25 – 2.33	1
	Women	1.36	0.83 – 2.22	
Liao, 2000 USA, NHIS 1988-90 < 1 drink/day	Men	1.19	0.95 – 1.48	2
	Women	1.38	1.17 – 1.63	
Rostron, 2012 USA, NHIS 1997-2004 1 drink/ drinking day	Men	1.28	1.05 – 1.56	3
	Women	1.39	1.18 – 1.63	
1. Age, education, marital status, past history of hypertension, renal diseases, liver diseases, diabetes mellitus, peptic ulcers, or tuberculosis; cigarette smoking, body mass index, walking time per day, consumption of green vegetables and oranges. Exclusion of 317 subjects who died within the first 3 years of follow-up. 2. Age, race, smoking, history of hypertension, diabetes, heart disease, marital status, years of education, and self-rated heath status. 3. Age, race/ethnicity, educational attainment, marital status, family income, smoking status, body mass index, and self-rated health status.				
NHIS = National Health Interview Survey				

Tab. 1. Relative risk among former drinkers (light drinkers = 1) and 95 % confidence interval: studies with adjustment for baseline health and major risk factors.

Light drinkers had a reported alcohol intake of up to 2 drinks (24 g of 100 % alcohol) per day or drinking day. New RRs were calculated from the published ones with light drinkers as the reference group. In two of the three comparisons among men, former drinkers had higher RR for death than light drinkers. In the third one, there was no significant difference but the point estimate of RR was

elevated. The same was true for women (Tab. 1). Taken all these three studies together, the pooled RR was 1.31 (95 % CI 1.15 - 1.50) for men and 1.38 (1.24 - 1.55) for women.

These findings are likely to be explained by the discontinuation of alcohol intake among former drinkers. An alternative explanation for the present finding is that the former drinkers may have had some diseases that remained unadjusted. Alcoholism may remain hidden but two facts speak against this as a major explanation. First, smoking, a strong correlate of alcohol intake, was adjusted for in all the three studies. Moreover, one of the studies adjusted also for liver diseases. Secondly, in a large U.S. study no alcoholism cases were found at baseline among any former drinkers, irrespective of the level of alcohol intake.

More efforts should be made to study the effect of stopping alcohol intake on future health outcomes. Published studies could be re-analysed. New studies should pay more attention to former drinkers. Health outcomes should be compared between former drinkers and light drinkers, the earlier health and drinking patterns of former drinkers should be taken into consideration, future changes in alcohol intake and health should be ascertained, and the potential influence of time in abstention after stopping drinking on health outcomes should be studied.

Kari Poikolainen
Department of Public Health, University of Helsinki, Finland

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Poikolainen K
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