RISK FACTORS

**ALCOHOL INTAKE, MI,
AND INCOME LEVEL**

The association between alcohol use and health is complex, with reports of both beneficial and harmful effects depending on the type and consumption levels. Accordingly, Andrew Smyth and colleagues show in a study published in *The Lancet* that current alcohol use is associated with a reduced rate of myocardial infarction (MI), but also with increased rates of alcohol-related cancer and injuries. Many studies have shown the association between low alcohol consumption and reduced risk of cardiovascular events, but Smyth notes the novel aspect of this study “is the inclusion of a significant number of participants from low-middle and low-income countries”.

The study involved 114,970 individuals from 12 countries participating in the Prospective Urban Rural Epidemiology (PURE) study. The investigators divided the countries into income groups based on the World Bank classification at the time of enrolment. Alcohol intake was self-reported and ‘never drinkers’ (65% of all individuals) were used as the reference. The outcomes included cardiovascular disease, alcohol-related cancer, injury, and mortality, and data were adjusted for factors that included age, sex, medications, and hypertension. The analysis showed that current drinking (31%) was associated with a reduced risk of MI (HR 0.76, 95% CI 0.63–0.93), but an increased risk of alcohol-related cancers (HR 1.51, 95% CI 1.22–1.89) and injuries (HR 1.29, 95% CI 1.04–1.61). Only high alcohol intake was associated with increased mortality (HR 1.31, 95% CI 1.04–1.66). When stratified by income, current alcohol use was associated with a reduced risk of MI only in higher-income countries (HR 0.53, 95% CI 0.40–0.73).

The analysis of the composite of all outcomes showed no net health benefit associated with alcohol intake, which supports the call for “global health strategies and national initiatives to reduce harmful alcohol use”, conclude the researchers. One of the limitations of the study is that the analyses were based on data from only one follow-up of 4.3 years since the start of the study, which resulted in a small number of events. The PURE study is planned to continue until 2021, and Smyth says they “will continue to explore the associations between alcohol consumption and health outcomes”.

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Original article Smyth, A. *et al.* Alcohol consumption and cardiovascular disease, cancer, injury, admission to hospital, and mortality: a prospective cohort study. *Lancet* doi:10.1016/S0140-6736(15)00235-4