

Study: HDL Not Independent Heart Disease Risk Factor



A study of 631,000 people has found that both low and very high levels of high-density lipoprotein (HDL) are associated with a higher risk of mortality from heart disease, cancer and other causes. The researchers suggest that the findings cast doubt on HDL being used as an independent risk factor for cardiovascular disease or for the goal of raising HDL levels to be used as an intervention to reduce cardiovascular disease mortality. The study, by Dennis T. Ko, MD, MSc, associate professor at the Institute for Clinical Evaluative Sciences in Toronto, and colleagues, is published in the [Journal of the American College of Cardiology](#).

The study cohort of 31,000 people with no existing cardiovascular conditions from the CANHEART research database in Ontario, Canada, included patients between the ages of 40 and 105 years old (average age 57.2), who had lived in Ontario for at least two years. This was the first study to evaluate the association between HDL and death in people living in the same environment and using the same healthcare system.

The researchers compared the HDL levels of people with healthier lifestyles to those with less healthy habits. The lowest levels of HDL were seen in people who were socioeconomically disadvantaged and who had less healthy lifestyle behaviours, more cardiac risk factors and more medical comorbidities.

However, even when adjusting for lifestyle factors, lower HDL levels were still associated with increased risk of both cardiovascular death and non-cardiovascular related death, such as death from cancer. Individuals with very high HDL levels had an increased risk of non-cardiovascular related death. These findings are similar to other research that showed that low HDL levels are associated with a higher risk of cardiovascular disease death, but this study is among the first to show a similar relationship between HDL and cancer death and other causes of death.

Researchers said they are unsure why very high levels of HDL increased levels of non-cardiovascular related death, but other studies have suggested this could be related to increased alcohol intake.

Ko commented in a [media release](#) that the connection between people with low HDL levels and other well-known risk factors for heart disease such as poor diet and exercise habits and other medical conditions seems certain. He added that a focus on raising HDL is likely not going to help these patients, but lifestyle changes would.

Limitations of the study include that researchers were unable to examine some potentially important aspects of HDL such as the relationship of particle sizes, subclasses or function with cardiovascular or non-cardiovascular mortality because these data are not available at the population level. Also, they did not have smoking status or alcohol use data for the entire population studied, but were able to supplement that data from an additional survey.

Source: [American College of Cardiology](#)

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