

## C-peptide levels linked to death and heart disease in nondiabetic adults

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High blood levels of the serum C-peptide are linked to heart disease and death in people without diabetes, according to a large study published in *CMAJ (Canadian Medical Association Journal)*.

Researchers looked at data from the Third Nutrition and Health Examination Survey (NHANES III) and the NHANES III Linked Mortality File to determine the link between C-peptide [levels](#) and death from all causes as well as from heart disease. They looked at [mortality data](#) on 5902 adults aged 40 years or older representative of the US population. People with high serum C-peptide levels (higher than 1.018 nmol/L) had a 1.8- to 3.2-fold increased risk of death from all causes as well as cardiovascular disease–specific death compared with people with low C-peptide levels (lower than 0.440 nmol/L). The risk increased as C-peptide levels increased.

"We found a significant association between serum C-peptide levels and risk of all-cause, cardiovascular-related disease and coronary artery–related mortality among adults without diabetes," writes Dr. Kyoung-bok Min, Department of Occupational and Environmental Medicine, Ajou University School of Medicine, Suwon, Republic of Korea, with coauthor.

The study authors found that C-peptide levels were better at predicting mortality than other measures such as glycated hemoglobin and fasting [blood glucose](#). Although the reason for the increased risk of death has not been determined, the authors suggest it may be because of the

relationship between C-peptide levels and risk factors for atherogenic vascular issues.

"Our findings support the potential relevance of serum C-peptide as a predictor of adverse [health outcomes](#) and indicate that elevated C-peptide levels may be an important predictive marker of an increased risk of death," they conclude.

**More information:** [www.cmaj.ca/lookup/doi/10.1503/cmaj.121950](http://www.cmaj.ca/lookup/doi/10.1503/cmaj.121950)

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