

# Exposure to LDL-C-lowering genetic variants ups T2DM risk

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(HealthDay)—Low-density lipoprotein cholesterol (LDL-C)-lowering

genetic variants are associated with increased risk of type 2 diabetes, according to a meta-analysis published in the Oct. 4 issue of the *Journal of the American Medical Association*.

Luca A. Lotta, M.D., Ph.D., from the University of Cambridge in the United Kingdom, and colleagues conducted meta-analyses of genetic association studies to examine the correlation of LDL-C-lowering genetic variants with type 2 [diabetes](#) and [coronary artery disease](#). Data were included for 50,775 individuals with type 2 diabetes and 270,269 controls and for 60,801 individuals with coronary artery disease and 123,504 controls.

The researchers observed an inverse correlation between LDL-C-lowering genetic variants at *NPC1L1* and coronary artery disease (odds ratio for a genetically predicted 1-mmol/L reduction in LDL-C, 0.61) and a direct correlation with type 2 diabetes (odds ratio for a genetically predicted 1-mmol/L reduction in LDL-C, 2.42). Per 1-mmol/L reduction in LDL-C, the odds ratio for type 2 diabetes was 1.19 for *PCSK9* genetic variants. There was a similar reduction in coronary artery disease risk with genetic variants for a given reduction in LDL-C; heterogeneous associations with type 2 diabetes were seen.

"In this meta-analysis, exposure to LDL-C-lowering genetic variants in or near *NPC1L1* and other genes was associated with a higher risk of type 2 diabetes," the authors write.

Several authors disclosed financial ties to the pharmaceutical industry.

**More information:** [Abstract](#)  
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