

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

October 7 2016



(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](#)
[Full Text \(subscription or payment may be required\)](#)

Copyright © 2016 [HealthDay](#). All rights reserved.

Citation: Exposure to LDL-C-lowering genetic variants ups T2DM risk (2016, October 7)
retrieved 3 May 2024 from

<https://medicalxpress.com/news/2016-10-exposure-ldl-c-lowering-genetic-variants-ups.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.