

# Antibiotics linked to higher heart disease risk in individuals with type 1 diabetes

August 5 2020

---



Credit: CC0 Public Domain

Results from a study published in the *Journal of Internal Medicine* suggest that bacterial infections may elevate the risk of coronary heart disease in individuals with type 1 diabetes.

Among 3,781 individuals with type 1 diabetes, 370 developed [coronary](#)

[heart disease](#) over an average follow-up of 13.7 years. Antibiotic purchases, reflecting bacterial infections in outpatient care, were significant [risk factors](#) for coronary heart disease, with a 21% increased risk for each annual antibiotic purchase.

A high blood level of bacterial lipopolysaccharides ([large molecules](#) derived from the outer layer of gram-negative bacteria) was also a risk factor for coronary heart disease.

"In broader terms, the present study demonstrates how infections associate with the development of late diabetic complications and perhaps even more importantly, how infections associate with the development of coronary heart disease, as the latter relationship has been disputed during recent years," said lead author Johan Rasmus Simonsen, MD, of the Folkhälsan Research Center, in Finland. "Interestingly, in our study this association to incident coronary [heart](#) disease was seen specifically with antibiotic purchases, making the potential pathophysiologic mechanisms behind this finding intriguing and warranting further studies."

**More information:** J. R. Simonsen et al, The association between bacterial infections and the risk of coronary heart disease in type 1 diabetes, *Journal of Internal Medicine* (2020). [DOI: 10.1111/joim.13138](https://doi.org/10.1111/joim.13138)

Provided by Wiley

Citation: Antibiotics linked to higher heart disease risk in individuals with type 1 diabetes (2020, August 5) retrieved 19 April 2024 from <https://medicalxpress.com/news/2020-08-antibiotics-linked-higher-heart-disease.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.