

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

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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

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,

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