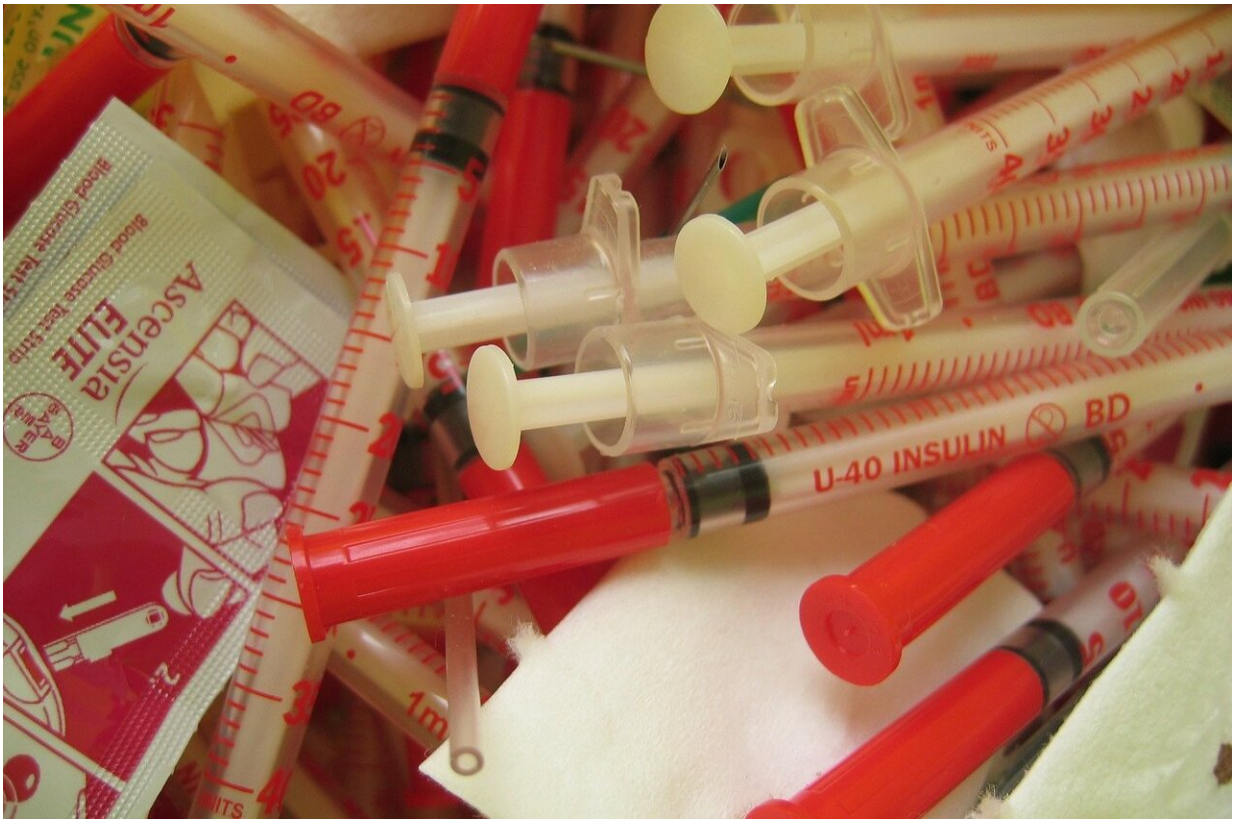


Exploring the role of insulin in heart disease among men

October 3 2019



Credit: CC0 Public Domain

Men have shorter life expectancy than women, in part due to the higher rates of heart disease among men. To address this disparity, heart disease is now being considered with the well-established evolutionary biology

theory that suggests that the intrinsic drive to achieve reproductive success can sometimes occur at the expense of longevity.

Insulin drives growth and reproduction, and the use of insulin has also long been suspected to play a role in [cardiovascular disease](#). Insulin acting via the reproductive axis would be expected to have sex-specific effects, which might be relevant to the higher rates of heart disease in men than in women. However, no-one has previously considered whether insulin might have different effects by sex on cardiovascular disease.

A Mendelian randomization study led by CUNY SPH Professor Mary Schooling showed that, consistent with the theory, men with genetically higher insulin levels had a higher risk of heart attack and angina.

Not only does this study shed new light on the reason for men's greater vulnerability to heart disease, Schooling says, it also suggests new targets of intervention for a leading cause of global mortality and raises questions about the best way of managing diabetes so as to reduce the risk of [heart disease](#).

"Further investigation of the role of minimizing insulin—within the healthy range—on cardiovascular disease is warranted, particularly to tackle sexual disparities in health," Schooling says.

More information: Jie V. Zhao et al. Sex-specific Mendelian randomization study of genetically predicted insulin and cardiovascular events in the UK Biobank, *Communications Biology* (2019). [DOI: 10.1038/s42003-019-0579-z](https://doi.org/10.1038/s42003-019-0579-z)

Provided by The City University of New York

Citation: Exploring the role of insulin in heart disease among men (2019, October 3) retrieved 6 May 2024 from <https://medicalxpress.com/news/2019-10-exploring-role-insulin-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.