

Convincing evidence that type 2 diabetes is a cause of erectile dysfunction

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Evidence that type 2 diabetes is a cause of erectile dysfunction has been found in a largescale genomic analysis.



The study, led by the University of Exeter and the University of Oxford, looked at data on more than 220,000 men across three cohorts, 6,000 of whom experienced erectile dysfunction. The research echoed recent findings that erectile dysfunction has a genetic cause, and goes further by opening the possibility that living a healthier lifestyle may help reduce risk.

Published in the *American Journal of Human Genetics*, the study was conducted in data from the UK Biobank, the Estonian Genome Center of the University of Tartu cohort, and hospital-recruited Partners HealthCare Biobank.

Using cutting-edge genetic analysis, the team was able to delve deeper than ever before into the complex correlations between <u>diabetes</u> and aspects including body weight. They found that having a genetic predisposition to type 2 diabetes was linked with erectile dysfunction, providing evidence that diabetes can be a cause of erectile issues.

Very few clinical trials of diabetes have reported erectile dysfunction as an outcome of improved glucose control. This limits the conclusions that can be drawn about whether treatment of diabetes is likely to have an impact on erectile dysfunction risk.

Dr. Anna Murray, of the University of Exeter Medical School, is co-lead author on the study. She said: "Erectile dysfunction affects at least one in five men over 60, yet up until now little has been known about its cause. Our paper echoes recent findings that the cause can be genetic, and it goes further. We found that a genetic predisposition to type 2 diabetes is linked to erectile dysfunction. That may mean that if people can reduce their risk of diabetes through healthier lifestyles, they may also avoid developing erectile dysfunction."

Professor Michael Holmes, of the Nuffield Department of Population



Health at the University of Oxford, one of the study's lead authors, said: "Our finding is important as diabetes is preventable and indeed one can now achieve 'remission' from diabetes with weight loss, as illustrated in recent clinical trials. This goes beyond finding a genetic link to erectile dysfunction to a message that is of widespread relevance to the general public, especially considering the burgeoning prevalence of diabetes."

Dr. Jonas Bovijn is the co-first author of the study and is from the Big Data Institute at the University of Oxford. He said: "We know that there is observational evidence linking erectile dysfunction and type 2 diabetes, but until now there has not been definitive evidence to show that predisposition to type 2 diabetes causes erectile dysfunction."

The paper also echoed a previous study that identified a specific region of the genome that is linked to erectile dysfunction, potentially paving the way for new treatments.

The full paper is entitled 'GWAS identifies risk locus for <u>erectile</u> <u>dysfunction</u> and implicates hypothalamic neurobiology and diabetes in etiology'.

Provided by University of Exeter

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