

Cancer replaces heart disease and stroke as the leading cause of death among people with diabetes

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Cancer is the leading cause of death among people with diabetes in England.

This is the finding of an 18-year-study of over 300,000 people with diabetes in England, from scientists from Imperial College London and published in the journal *The Lancet Diabetes & Endocrinology*.

The research, funded by the Wellcome Trust, reveals that between 2001-2018 [heart disease](#) and stroke were no longer the leading causes of [death](#) among people with diabetes, as they were 18 years ago.

Diabetes affects 4.7 million people in the UK, and is caused by the body being unable to regulate blood sugar levels. Around 90 percent have type 2 diabetes, which is associated with lifestyle factors such as [high blood pressure](#) and excess weight.

The remainder have type 1 diabetes, which is caused by the body attacking the cells that produce insulin, the hormone that controls blood sugar.

In the study, researchers from Imperial's School of Public Health looked at anonymised primary care data from 313,907 people in England with diabetes between 2001-2018, and linked this with death data from the Office of National Statistics.

The study revealed death rates for those with diabetes declined in the study period by 32 percent for men, and 31 percent for women.

The team explain deaths from heart [disease](#) and stroke have reduced across the whole population, including those without diabetes.

Dr. Jonathan Pearson-Stuttard, lead author of the study, said:

"Improvements in [risk factors](#) such as smoking and blood pressure, along with progress in [medical treatments](#) have contributed to large falls in deaths from heart disease and stroke. The improvements have been even greater in those with diabetes. This has resulted in vascular conditions

accounting for around 25 percent of all deaths in those with diabetes compared to 45 percent 20 years ago.

"In contrast, improvements in cancer death rates have been much more modest, with improvements in those with diabetes lagging behind the general population. It is striking that cancer is now the leading cause of death in England among people with diabetes and the leading contributor to excess death compared to those without diabetes. Added to this is the fact the UK continues to lag behind other EU countries in terms of cancer survival rates."

The findings also showed people with diabetes were more likely to die from dementia, liver disease, or respiratory disease in 2018 than people without diabetes.

Death rates were higher in those with diabetes compared to those without in almost all causes studied. Death rates for liver disease and dementia were twice as high in those with diabetes compared to those without in 2018, while respiratory [death rates](#) were 80 percent higher.

The research team say individuals with diabetes have up to a two-fold increased risk of dementia compared with those without diabetes. The precise link for this is unclear but there are several shared risk factors such as smoking, obesity and poor diet between diabetes and dementia.

The increase in liver disease could be due to the high levels of obesity among people with diabetes, and a higher alcohol consumption.

The team call for guidance around the treatment of diabetes to be updated, to ensure patients and clinicians are aware of the breadth of conditions they are at higher risk of including cancer, dementia and liver disease.

They add that the reasons for cancer being the leading cause of death are unclear, but could be linked to the fact people with diabetes are more likely to be overweight, and excess weight is a leading risk factor for [cancer](#).

The team also highlight limitations of the study, such as the inability to differentiate between type one and two diabetes in the data, and the fact around 20 percent of people with diabetes in the UK are undiagnosed.

Professor Edward Gregg, senior author of the study added: "This study is another reminder that as people die less from cardiovascular diseases, diabetes still leads to a wide range of other problems. The diversification of the big contributors to death here included cancers, dementia and respiratory diseases. This, and the current experience with COVID-19, is a reminder that we need to take an increasingly broad view about what prevention means for people with [diabetes](#)."

More information: Trends in predominant causes of death in individuals with and without diabetes in England from 2001 to 2018:an epidemiological analysis of linked primary care records.
[doi.org/10.1016/S2213-8587\(20\)30431-9](https://doi.org/10.1016/S2213-8587(20)30431-9)

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