

Type 2 diabetes takes greatest toll on life expectancy of women, younger people and smokers, analysis of UK data finds

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New research being presented at the annual meeting of the European Association for the Study of Diabetes in Stockholm, Sweden (19-23

Sept) indicates that type 2 diabetes (T2D) takes a greater toll on the mortality and life expectancy of women, younger people and smokers.

A woman with T2D has 60% increased chance of an early death and will live five years less than the average woman in the general population. Men with T2D, meanwhile, have a 44% increased risk of dying prematurely and live 4.5 years less, indicates the modeling by Mike Stedman, of Res Consortium, a healthcare consultancy in Andover, UK, and Dr. Adrian Heald, of Salford Royal Hospital, Salford, UK and colleagues.

Smoking shortens the life expectancy of people with T2D by ten years, while diagnosis at an earlier age (before the age of 65) reduces life expectancy by over eight years.

As many as 3.5 million people in the UK have been diagnosed with T2D, the most common form of the condition, with numbers expected to rise in future years. It usually occurs in middle-aged and older people, but onset at a younger age is becoming more common globally.

People in England with diabetes are known to have a 50 to 70% higher risk of dying prematurely than individuals without diabetes (this is known as the age-standardized mortality ratio or SMR).

Little is known, however, about how demographic and lifestyle factors might affect the size of this risk.

The researchers worked out the life expectancy of T2D patients in Salford, UK (11,806 participants, 55% male, average age 66.2 years) over a ten-year period and compared this to life expectancy figures for the general population of the same age and sex.

They then looked at the effect of demographic and lifestyle factors on

mortality rate and life expectancy of the individuals with T2D.

The data used included the participants' health records from 2010 to 2020 (stopping before the COVID-19 pandemic), Office for National Statistics information on life expectancy of the general population and information from the Index of Multiple Deprivation.

A total of 3,921 of the participants died (2,080 men) during the ten years studied, compared to an expected 2,135, giving a standardized mortality ratio (SMR) of 1.84, meaning that the risk of an early death was 84% higher in people with diabetes than in the general population.

The increased risk of early death was greater for women with T2D than for men with T2D (96% vs. 74% greater risk of early death).

This surprised the researchers because T2D is generally assumed to have a greater effect on men's health than on women's.

When the results were adjusted to take into account levels of deprivation (Salford is one of the most disadvantaged areas of England), those with T2D still had a significantly higher risk of an early death.

With adjustment for deprivation, a woman with T2D was 60% more likely to die early than someone in the general population, while a man with T2D was 44% more likely to die prematurely.

The results also suggest that T2D has a greater effect on the life expectancy of people diagnosed at a younger age. Those diagnosed below 65 years old had a 93% higher risk of an early death and lived more than eight years less than people of the same age in the general population. Those diagnosed at 65 and older lost less than 2 years.

Smoking had the largest effect on the mortality and life expectancy of

people with T2D. The modeling found that people with T2D who smoked were 2.5 times more likely to die prematurely than people in the general population.

Smokers with T2D lived ten years less than people in the general population; non-smokers and ex-smokers with T2D lost three years of life expectancy.

The modeling found that a female smoker who was diagnosed before the age of 65 was 3.75 times more likely to die prematurely and lived 15 years less than a woman in the general population of the same age.

Dr. Heald says, "Our modeling suggests that type 2 diabetes has a greater effect on the life expectancy of [women](#), smokers and those diagnosed at a younger age.

"A woman with type 2 diabetes, for example, might live five years less than the average woman in the general population, while someone diagnosed at a younger age might lose eight years of [life expectancy](#).

"It is vital that the groups at the highest risk are made aware of not just the increased risk that they face but also the size of the risk. Doing so may make the health advice they are given seem more relevant and so help them make changes that can improve their quality—and length—of life."

Provided by Diabetologia

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