

# Women most affected by vascular complications of diabetes

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Women are most affected by the vascular complications of diabetes—a situation likely to escalate in the coming decades, reports a paper published on World Diabetes Day in the *European Journal of Preventive Cardiology*, a journal of the European Society of Cardiology (ESC).

Cardiovascular [disease](#) occurs 15 years earlier in patients with diabetes and is their main cause of morbidity and mortality. In [women](#), the links between diabetes and cardiovascular disease are particularly potent.

Globally, there are more deaths due to diabetes in women than in men (2.1 versus 1.8 million annually) - this excess risk is mainly due to the higher risk of cardiovascular death in women.

Coronary heart disease is the most frequently reported form of cardiovascular disease and the most lethal one. Women with diabetes are at a 1.81-fold risk of death from [coronary heart disease](#) compared to women without diabetes. Men with diabetes have a 1.48-fold risk of death from coronary heart disease compared to men without diabetes.

Peripheral artery disease—which can ultimately lead to foot amputation—is the most common initial manifestation of cardiovascular disease in patients with type 2 diabetes. Its prevalence is 1.8-fold higher in women compared to men.

Heart failure is the second most common initial manifestation of [cardiovascular disease](#) in type 2 diabetes. Women with diabetes are five times more likely to get [heart failure](#) than women without diabetes. Men with diabetes are two times more likely to get heart failure than men without diabetes.

Research is ongoing to explain these differences between women and men. One possible reason for the higher heart failure risk could be that a specific

form is more common in women generally and is the type most likely to affect patients with diabetes.

This form is called heart failure with preserved ejection fraction, where the [heart](#) maintains its pump function but has increased stiffness causing impaired relaxation after contraction.

In both women and men, a [healthy lifestyle](#) is the cornerstone to preventing diabetes; once people have diabetes, it is fundamental to stopping the cardiovascular complications.

Senior author Professor Joline Beulens, of Amsterdam University Medical Centre, the Netherlands said: "With the increased levels of obesity in our society we have seen an enormous rise in the prevalence of diabetes. We know that type 2 diabetes is a lifestyle-related disease, so we can halt the trajectory with better behaviours."

"Lifestyle management is the first line of treatment for patients with diabetes," continued Professor Beulens. "If lifestyle doesn't sufficiently control glucose levels and the risk of complications, then glucose-lowering treatment should be initiated as the second line of therapy."

ESC diabetes guidelines advise patients with diabetes and pre-diabetes to:

- Quit smoking.
- Reduce calorie intake to lower excessive body weight.
- Adopt a Mediterranean diet supplemented with olive oil and/or nuts to lower the risk of cardiovascular events.
- Avoid alcohol.
- Do moderate-to-vigorous physical activity (a combination of aerobic and resistance exercise) at least 150 minutes per week to prevent/control diabetes—unless contraindicated, such as in patients with severe comorbidities or limited life expectancy.

Professor Beulens said: "Patients with diabetes remain at significantly higher cardiovascular risk compared to people without diabetes. There is an urgent need to better identify, monitor, and control diabetes to prevent the devastating cardiovascular complications."

Today's paper is part of a special supplement on [diabetes](#) in the *European Journal of Preventive Cardiology*. The issue was organised by the European Association of Preventive Cardiology (EAPC) as part of the [Diabetes and CVD Programme](#).

**More information:** Elisa Dal Canto et al, Diabetes as a cardiovascular risk factor: An overview of global trends of macro and micro vascular complications, *European Journal of Preventive Cardiology* (2019). [DOI: 10.1177/2047487319878371](#)

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