

Most type 2 diabetes patients are at high risk of a fatal heart attack or stroke

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Preventing heart attacks and strokes in type 2 diabetes patients managed in primary care should be an urgent priority. That's the conclusion of a study published on World Diabetes Day in the *European Journal of*

Preventive Cardiology, a journal of the European Society of Cardiology (ESC).

"The most striking result of our study was that the vast majority of patients (93%) had a high or very high risk of fatal events within a decade. Half of patients in the very high-risk group had no history of heart disease, meaning they would not be receiving medications to prevent heart attacks and strokes," said study author Dr. Manel Mata-Cases, a general practitioner for the Catalan Institute of Health in Sant Adrià de Besòs.

"As far as we know, this study in nearly 375,000 people from a well-validated population-based database illustrates the situation in the Mediterranean for the first time. Traditionally, [cardiovascular risk](#) in the region has been lower than in central and northern Europe or the US; therefore, our results should generate concern and a call for action to prevent heart attacks and strokes in people with type 2 diabetes managed in [primary care](#)," he added.

This was a cross-sectional study that used the Information System for the Development of Research in Primary Care (SIDIAP) database, which includes 74% of the total population in Catalonia, Spain. The SIDIAP database contains anonymous, longitudinal patient information extracted from the electronic medical record system (e-CAP) used by all primary health providers in Catalonia.

The study population consisted of 373,185 people aged 18 and over with a diagnosis of type 2 diabetes by 31 December 2016. The average age was 70.1 years and 45.2% were female. Some 72% had high blood pressure, 45% were obese, 60% had high serum cholesterol, and 14% were current smokers.

The investigators calculated the likelihood of each participant having a

fatal [heart attack](#) or stroke within 10 years using categories in the ESC guidelines on diabetes and [cardiovascular disease](#). The three categories are: very high risk (above 10%), high risk (between 5% and 10%), and moderate risk (below 5%).

To be classified as very high risk, patients must have established cardiovascular disease (e.g. prior heart attack or stroke), or other conditions which threaten their health such as kidney impairment, or at least three cardiovascular risk factors (older age, [high blood pressure](#), high serum cholesterol, smoking, obesity).

Over half of the participants (53.4%) were at very high risk of fatal events. This observation was more frequent in men (55.6%) than in women (50.7%). Some 39.6% were classified as high risk and just 7% had moderate risk of dying from a [heart](#) attack or stroke within 10 years.

Dr. Mata-Cases concluded: "These findings in a primary care setting should fuel the implementation of integrated care. Healthy behaviours are the cornerstone of preventing cardiovascular disease and need to be combined with control of blood glucose, serum cholesterol, and blood pressure. GPs and nurses should agree treatment objectives with patients considering their characteristics and preferences."

Lifestyle advice for patients with diabetes

- Quit smoking.
- Reduce calorie intake to lower excessive body weight.
- Adopt a Mediterranean diet supplemented with olive oil and/or nuts.
- Avoid alcohol.
- Do moderate-to-vigorous physical activity for at least 150 minutes per week.

More information: Cebrián-Cuenca A, Mata-Cases M, Franch-Nadal J, et al. Half of patients with type 2 diabetes mellitus are at very high cardiovascular risk according to the 2019 ESC/EASD categories: data from a large Mediterranean population. *Eur J Prev Cardiol.* 2020. [DOI: 10.1093/eurjpc/zwaa073](https://doi.org/10.1093/eurjpc/zwaa073)

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