

Heart patients three times more likely to have diabetes than general population

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Nearly 30% of patients with coronary artery disease have diabetes, according to a large study published on World Health Day in the *European Journal of Preventive Cardiology*, a journal of the European Society of Cardiology (ESC). That compares to a diabetes prevalence of around 9% in the general population. There was wide geographical

variation, with 60% of heart disease patients in Gulf countries having diabetes compared to 20% in Europe.

"Obesity and lack of exercise are common risk factors for both diabetes and heart disease and our results highlight the urgent need to improve nutrition and raise activity levels globally," said study author Dr. Emmanuelle Vidal-Petiot of Bichat-Claude Bernard Hospital, Paris, France. "Countries worst affected by diabetes are also at the epicenter of the obesity epidemic, which can be in part attributed to urbanization and associated changes in physical activity and food intake."

This was an analysis of the CLARIFY registry, which included 32,694 patients with chronic coronary syndromes from 45 countries in Europe, Asia, America, the Middle East, Australia, and Africa. Patients were enrolled in 2009 to 2010 and followed up yearly for five years.

All adverse clinical outcomes measured in the study occurred more frequently among heart patients with diabetes compared to those without diabetes. When the researchers compared the likelihood of poor outcomes in those with diabetes compared to those without, they adjusted the analyses for multiple factors that could influence the relationship including age, sex, smoking status, body mass index, blood pressure, medications, and other conditions.

After these adjustments they found that among patients with stable coronary heart disease, those with diabetes had a 38% higher rate of death during the five-year follow-up. They also had a 28% higher risk of the combined outcome of heart attack, stroke, or death from a cardiovascular cause. Heart patients with diabetes had worse outcomes than those without diabetes regardless of geographic region and ethnicity.

Dr. Vidal-Petiot said: "Diabetes was linked with worse outcomes even in

areas with the lowest prevalence. In Europe, for instance, diabetes was linked with a 29% greater risk of the combined outcome of heart attack, stroke, or cardiovascular death. This indicates that management of these very high-risk patients with heart disease and diabetes should be improved. Each country needs to identify these patients and provide tailored educational and prevention programs."

She concluded: "The importance of healthy eating and living cannot be overemphasized. Everyone can lower their chances of developing diabetes with weight control and exercise, and early detection is needed so that blood sugar can be controlled. Those with [heart disease](#) and [diabetes](#) also need an active lifestyle and a good diet to protect their health. Avoiding smoking is crucial, as is controlling blood pressure and cholesterol levels."

More information: Koon-Hou Mak et al. Prevalence of diabetes and impact on cardiovascular events and mortality in patients with chronic coronary syndromes, across multiple geographical regions and ethnicities, *European Journal of Preventive Cardiology* (2021). [DOI: 10.1093/eurjpc/zwab011](https://doi.org/10.1093/eurjpc/zwab011)

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