

# Diabetes Mellitus: How to Reduce Risk of Cardiovascular Diseases

A scientific evaluation of over 2,000 studies carried out by a team at the Medical Faculty of the TU Dresden finds that adopting preventive measures in patients with diabetes mellitus reduces the risk of cardiovascular diseases (CVD).



*Prof. Schwarz (right), Prof. Morawietz (left), and their team who carried out the scientific evaluation of over 2,000 studies. DIGS-BB PhD student Mohamad Almedawar is second from right.*

*Whether it's physical activity, nutrition, or medication, adopting preventive measures in patients with diabetes mellitus reduces the risk of cardiovascular diseases (CVD). This is the result of a scientific evaluation of over 2,000 studies carried out by a team of researchers at the Medical Faculty of the TU Dresden including DIGS-BB PhD student Mohamad Almedawar. The results were published in the renowned [Journal of the](#)*

## [American College of Cardiology.](#)

CVD are the most common cause of mortality in industrial societies. Vascular diseases progress subclinically and are usually only discovered when severe symptoms surface. Therefore, prevention of these diseases is difficult. Moreover, many risk factors contribute to CVD including chronic diseases such diabetes mellitus and dyslipidemia. Under the leadership of Prof. Peter Schwarz und Prof. Henning Morawietz from the Medical Clinic III of the University Hospital Carl Gustav Carus at the TU Dresden, an international team of scientists have analysed systemic reviews and meta-analyses that were published since 2016 and evaluated preventive measures of cardiovascular outcomes in patients with diabetes mellitus.

The risk of CVD events is increased 2 to 3 times in patients with type 2 diabetes. This risk can be reduced with pharmacological control of blood sugar levels, as confirmed by the published analysis. In principal, the earlier patients are treated with glucose lowering medication, the lower the risk of CVD outcomes. Changes in lifestyle habits have also been shown to have a positive effect not only on the blood sugar levels, but also on blood pressure and the risk of metabolic syndrome. The use of mobile Apps and social media can even optimize the process.

The results also support the formation of multidisciplinary teams of doctors, pharmacists and care providers to prevent or treat CVDs in patients with type 2 diabetes. The formation of such teams also helps local and regional health centers compensate for the gaps in the healthcare workforce. Professor Dr. Peter Schwarz explained that their *“results show that it is worthwhile to develop standardized procedures to be used to treat patients with type 2 diabetes and at the same time prevent CVD”*.

### *Original publication:*

Schwarz PEH, Timpel P, Harst L, Greaves CJ, Ali MK, Lambert J, Weber

MB, Almedawar MM, Morawietz H (2018)

**Blood sugar regulation for cardiovascular health promotion and disease prevention**

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