

# Sitting less and moving about more could be more important than vigorous exercise to reduce your risk of type 2 diabetes

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New research led at the University of Leicester reveals that individuals at high risk of developing type 2 diabetes would benefit from being told to sit less and move around more often- rather than simply exercising regularly. The experts suggest that reducing sitting time by 90 minutes in total per day could lead to important health benefits.

Currently, at [risk patients](#) are advised to engage in moderate-to-[vigorous physical activity](#) (MVPA) for at least 150 mins per week. But the new study published in *Diabetologia* (The journal of the European Association for the Study of Diabetes) suggests that patents should in fact be advised to reduce their sedentary time (time spent moving very little or not at all, for example sitting or lying down). The research was led by Joseph Henson and colleagues from the Diabetes Research Unit, University of Leicester and National Institute for Health Research (NIHR) Leicester Loughborough Diet, Lifestyle and Physical Activity [Biomedical Research](#) Unit (BRU), UK.

Henson and colleagues analysed patients from two studies: 153 from project STAND (Sedentary Time and Diabetes study, mean age 33 years, 29% men) and the Walking Away from Diabetes study (mean age 64 years, 65% men). The team examined the extent to which sedentary time, breaks in sedentary time, MVPA and total physical activity were independently associated with cardiometabolic risk factors in a population with known risk factors for [type 2 diabetes](#). [Accelerometers](#)

were used to assess sedentary time, MVPA, and total physical activity. Breaks in sedentary time were defined as a transition from a sedentary to an [active state](#).

The researchers found that for these patients with known risk factors for type 2 diabetes recruited from primary care, sedentary time was detrimentally associated with 2 h glucose, triacylglycerol and HDL-cholesterol, independent of measured confounders. These results remained significant after further adjustment for MVPA and adiposity.

Furthermore, the findings were consistent across groups with diverse age ranges, providing evidence that the negative consequences of excess sedentary time exist across young to old adults. Interestingly, sedentary time was shown to have stronger associations with several important cardiometabolic markers (2 h glucose, triacylglycerol and HDL-cholesterol) compared with total physical activity and MVPA, after adjustment for each other and other important confounders.

"These studies provide preliminary evidence that sedentary behaviour may be a more effective way to target the prevention of type 2 diabetes, rather than just solely focusing on MVPA. Moreover, [sedentary time](#) occupies large portions of the day, unlike MVPA," says Henson.

He adds that the new data raise questions regarding the possible prescription of optimal daily movement for health. He concludes: "Diabetes and cardiovascular prevention programmes concentrating solely on MVPA may overlook an area that is of fundamental importance to cardiometabolic health. Along with messages related to accumulating at least 150 min/week of MVPA, which form the cornerstone of diabetes prevention programmes, such interventions may be more effective still if individuals are further encouraged to simply sit less and move more, regardless of the intensity level."

He concludes: "This approach requires a paradigm shift, so that individuals at [high risk](#) of developing type 2 diabetes think about the balance of sedentary behaviour and [physical activity](#) throughout the day."

Provided by Diabetologia

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