

Type 2 diabetes linked to higher risk of stroke and CV problems; metabolic syndrome isn't

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Among patients who have had an ischemic stroke or transient ischemic attack (TIA), type 2 diabetes was associated with an increased risk of recurrent stroke or cardiovascular events, but metabolic syndrome was not, according to a report published Online First today by *Archives of Neurology*.

Previous research has examined the association between cardiovascular incidents and these conditions, according to background information in the article. "[Type 2 diabetes mellitus](#) is associated with increased risks of both stroke and [coronary heart disease](#) (CHD)," the authors write. "Metabolic syndrome (MetS) or [insulin resistance](#) identifies individuals at higher risk for developing type 2 diabetes and is also associated with an increase in stroke and [cardiovascular morbidity](#)."

Alfred Callahan, M.D., from Vanderbilt University, Nashville, and colleagues evaluated these risks as part of a secondary analysis of the Stroke Prevention by Aggressive Reduction of [Cholesterol Levels](#) (SPARCL) Trial. The primary goal of that study was to evaluate the effect of a cholesterol-lowering statin drug (atorvastatin) on reducing the incidence of stroke in patients with a prior stroke or TIA. For this study, the authors performed a secondary analysis on the data to determine the risk of [recurrent stroke](#) or cardiovascular events in patients with type 2 diabetes or MetS, and whether atorvastatin affected those risks.

In total, the study included 4,731 participants who had experienced an [ischemic stroke](#) or TIA. When enrollment began, researchers classified 794 individuals as having type 2 diabetes, 642 as having MetS and the remaining 3,295 as having neither condition. The endpoints used for this analysis were recurrence of stroke, major coronary or cardiovascular events, any CHD event and any revascularization procedure (a procedure, such as

angioplasty, to open a blocked artery).

Patients with type 2 diabetes were more likely than those in the control group to experience another stroke, major cardiovascular incident, or revascularization procedure. Those in the MetS group were not at increased risk of stroke or major cardiovascular events, but were more likely than those in the control group to undergo revascularization procedures. Treatment with the statin medication did significantly reduce the risk of these events in participants with type 2 diabetes or MetS.

The authors note that their results are similar to other studies of stroke and cardiovascular events in individuals with MetS or type 2 diabetes. In particular, they cite the differences in risks between the two conditions. They also point out that statin use did seem to be protective for participants: "Although the possibility of variation in the benefit of statin treatment in subjects with or without type 2 diabetes or MetS cannot be excluded by this analysis, there was no evidence of a difference in treatment effect."

More information: *Arch Neurol.* 2011;[doi:10.1001/archneurol.2011.146](https://doi.org/10.1001/archneurol.2011.146)

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