

# Risk of ischemic, hemorrhagic stroke up with type 1 diabetes

December 13 2016

---



(HealthDay)—The risks of ischemic and hemorrhagic stroke are

increased with type 1 diabetes, with incrementally increasing risks with increasing hemoglobin A1c (HbA1c), according to a study published in the November issue of the *Journal of Internal Medicine*.

Christina Hedén Ståhl, from the University of Gothenburg in Sweden, and colleagues conducted a prospective, matched cohort study to examine the excess stroke risk in relation to [glycemic control](#) in patients with type 1 diabetes. Patients with type 1 diabetes registered in the Swedish National Diabetes Register (33,453 participants) were each matched to five [control subjects](#) from the general population (159,924 participants).

The researchers found that 2.3 percent of patients with diabetes and 0.7 percent of control subjects were diagnosed with stroke. Type 1 diabetes patients had overall multiple-adjusted hazard ratios of 3.29 and 2.49 for ischemic and hemorrhagic stroke, respectively, compared with control subjects. With increasing HbA1c, the risk of ischemic and hemorrhagic stroke increased incrementally; the risk of [ischemic stroke](#) was significantly increased with HbA1c within target ( $\leq 6.9$  percent, multiple-adjusted hazard ratio, 1.89). The risks of ischemic and hemorrhagic stroke were markedly increased for HbA1c  $\geq 9.7$  percent, with multiple-adjusted hazard ratios of 7.94 and 8.17, respectively.

"Individuals with type 1 diabetes have an increased risk of ischemic and [hemorrhagic stroke](#), increasing markedly with poor glycemic control," the authors write.

The Novo Nordisk Foundation provided some funding for the study.

**More information:** [Full Text](#)

Copyright © 2016 [HealthDay](#). All rights reserved.

Citation: Risk of ischemic, hemorrhagic stroke up with type 1 diabetes (2016, December 13)  
retrieved 28 April 2024 from  
<https://medicalxpress.com/news/2016-12-ischemic-hemorrhagic-diabetes.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.