

# Long-time diabetics have increased risk of stroke

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The longer you have diabetes, the higher your risk for stroke, according to a study in *Stroke*, an American Heart Association journal.

In the study, [diabetes](#) increased [stroke](#) risk 3 percent each year and tripled the risk for [people](#) who had diabetes for 10 years or more, compared to people without diabetes.

"The findings emphasize the chronic nature of diabetes and the fact that it damages the blood vessels over time," said Mitchell S. V. Elkind, M.D., M.S., the study's senior author and associate chairman of neurology for clinical research and training at Columbia University Medical Center in New York City.

The findings also have public health implications.

"Although stroke rates have been declining overall, the increase in diabetes incidence over the same period may lead to a higher overall stroke burden in the future," Elkind said.

While previous research examined the relationship of diabetes and stroke in women, this is the first to examine whether the length of time a man or woman has [type 2 diabetes](#) impacts the risk of ischemic stroke. [Ischemic stroke](#) is the most common type of stroke caused by blocked blood flow to the brain. While diabetes is a known risk factor for stroke, the influence of diabetes duration is unclear.

As part of the Northern Manhattan Study (NOMAS), researchers followed 3,298 people (average age 69) who had never had a stroke. Nearly 22 percent of participants had type 2 diabetes at the start of the study. After an average nine years of follow-up, an additional 10 percent developed diabetes.

After considering other factors such as age, smoking history, physical activity, history of heart disease, blood pressure and cholesterol, researchers said that compared to people without diabetes, the risk of stroke increased:

- 70 percent in people with diabetes for less than five years;
- 80 percent in people with diabetes for five to 10 years;
- three-fold in people with diabetes for 10 years or more.

For people with diabetes, stroke risk may depend as much on how long you've had the condition as on the diagnosis itself, Elkind said. However, the onset of diabetes may be four to seven years earlier than diagnosis. A possible solution is to delay the onset of diabetes by engaging in healthy behaviors, particularly among young people, he said.

Among the nearly 26 million Americans with diabetes, more than half are younger than 65, according to the American Diabetes Association.

"We used to think of type 2 diabetes as a disease people get when they are older, after a lifetime of poor dietary habits," said Elkind, who is also an associate professor of neurology and epidemiology at Columbia. "But the age at diagnosis is getting younger and younger because of the obesity problem among young people."

Some of the reasons for increased [stroke risk](#) may include an association between longer diabetes duration and thicker plaque in neck arteries and

the higher prevalence of hypertension, accelerated vascular complications and clotting abnormalities in diabetics.

"If how long a person has diabetes matters, young people with a long history of diabetes are more likely to develop complications earlier in life," Elkind said. "It's possible that people with diabetes may start having strokes at a younger age."

Therefore, young people should be educated about diabetes and how to prevent it, he said.

Provided by American Heart Association

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