

## Inflammatory bowel disease linked to increased risk of stroke

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People with inflammatory bowel disease (IBD) are more likely to have a stroke than people without the disease, according to a study published in



*Neurology*. The study does not prove that IBD causes stroke; it only shows an association.

Inflammatory bowel disease causes chronic inflammation of the intestines. It includes Crohn's disease, <u>ulcerative colitis</u> and unclassified inflammatory bowel disease.

The study found that people with IBD were 13% more likely to have a stroke up to 25 years after their diagnosis than people without IBD.

"These results show that people with inflammatory bowel disease and their doctors should be aware of this long-term increased risk," said study author Jiangwei Sun, Ph.D., of the Karolinska Institutet in Stockholm, Sweden. "Screening and management of stroke risk factors may be more urgent in people with IBD."

The study involved 85,006 people with IBD confirmed with a biopsy. They were each matched with up to five people of the same birth year, sex and county of residence who did not have IBD, for a total of 406,987 people.

During an average follow-up of 12 years, 3,720 of the people with IBD had a stroke, compared with 15,599 of the people who did not have IBD, which is a rate of 32.6 per 10,000 person years for those with IBD compared to 27.7 for those without IBD. Person-years represent both the number of people in the study and the amount of time each person spends in the study.

When researchers accounted for other factors that could affect stroke risk, such as <u>heart disease</u>, <u>high blood pressure</u> and obesity, they found that people with IBD were 13% more likely to have a stroke than those without IBD. Researchers found that the increased risk was mainly due to <u>ischemic stroke</u>, which is caused by a blockage of blood flow to the



brain, rather than <u>hemorrhagic stroke</u>, a stroke caused by bleeding in the brain.

Because both IBD and stroke have some genetic components predisposing people to the disease, researchers also included in the study full siblings of the people with IBD. The 101,082 siblings had no history of IBD or stroke at the beginning of the study. Consistent with the main results, people with IBD had a higher risk of stroke than their siblings without IBD. Their overall risk was 11% higher.

"The elevated risk for people with IBD remained even 25 years after they were first diagnosed, corresponding to one additional stroke case for every 93 people with IBD until that point," Sun said.

A limitation of the study was that the criteria for diagnosing inflammatory bowel disease and stroke have changed over the study period, which could affect the results. Also, researchers did not have complete information on all factors that could affect stroke risk, such as diet, smoking and alcohol consumption.

**More information:** Jiangwei Sun et al, Long-term Risk of Stroke in Patients With Inflammatory Bowel Disease: A Population-Based, Sibling-Controlled Cohort Study, 1969–2019, *Neurology* (2023). DOI: 10.1212/WNL.00000000000207480

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