

# Popular heartburn medication may increase ischemic stroke risk

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A popular group of antacids known as proton pump inhibitors, or PPIs, used to reduce stomach acid and treat heartburn may increase the risk of ischemic stroke, according to preliminary research presented at the American Heart Association's Scientific Sessions 2016.

"PPIs have been associated with unhealthy vascular function, including heart attacks, kidney disease and dementia," said Thomas Sehested, M.D., study lead author and a researcher at the Danish Heart Foundation in Copenhagen, Denmark. "We wanted to see if PPIs also posed a risk for ischemic [stroke](#), especially given their increasing use in the general population."

Ischemic stroke, the most common type of stroke, is caused by clots blocking blood flow to or in the brain.

Researchers analyzed the records of 244,679 Danish [patients](#), average age 57, who had an endoscopy—a procedure used to identify the causes of stomach pain and indigestion. During nearly six years of follow up, 9,489 patients had an ischemic stroke for the first time in their lives. Researchers determined if the stroke occurred while patients were using 1 of 4 PPIs: omeprazole (Prilosec), pantoprazole (Protonix), lansoprazole (Prevacid) and esomeprazole (Nexium).

For [ischemic stroke](#), researchers found:

- Overall stroke risk increased by 21 percent when patients were

taking a PPI.

- At the lowest doses of the PPIs, there was slight or no increased stroke risk.
- At the highest dose for these 4 PPI's, [stroke risk](#) increased from 30 percent for lansoprazole (Prevacid) to 94 percent for pantoprazole (Protonix).
- There was no increased risk of stroke associated with another group of acid-reducing medications known as H2 blockers, which include famotidine (Pepcid) and ranitidine (Zantac).

In comparison with non-users, PPI users were older and had more health conditions, including atrial fibrillation at baseline (3.4 vs. 3.8 percent). The study accounted for age, gender and medical factors, including [high blood pressure](#), [atrial fibrillation](#) (irregular heart beat), heart failure and the use of certain pain relievers that have been linked to heart attack and stroke.

Authors believe that their findings, along with previous studies, should encourage more cautious use of PPIs. Sehested noted that most PPIs in the United States are now available over the counter.

"At one time, PPIs were thought to be safe, without major side effects," he said, "This study further questions the cardiovascular safety of these drugs."

Although their study did not find a link between H2 blockers and stroke, the authors could not say that this group of drugs would be better for patients than PPIs.

Doctors prescribing PPIs, should carefully consider whether their use is warranted and for how long: "We know that from prior studies that a lot of individuals are using PPIs for a much longer time than indicated, which is especially true for elderly patients."

Study limitations include its observational design, which cannot establish cause and effect, and the fact that nearly all the participants were white. Authors believe that a [randomized controlled trial](#) of PPIs and cardiovascular disease is warranted.

Provided by American Heart Association

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