

## Previous stroke, vascular disease: Seniors at higher risk of stroke after heart surgery

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Older people who have had strokes or who have vascular disease are at risk of stroke both immediately after cardiac surgery and during the following two years, according to a new study in *CMAJ (Canadian Medical Association Journal)*.

Postoperative stroke is a significant complication after surgery. Many patients also have health conditions such as [high blood pressure](#), diabetes and [atrial fibrillation](#) (irregular heartbeat) that can increase the long-term risk of stroke.

A large study of 108,711 patients who had cardiac surgery in Ontario, Canada, sought to identify risk factors for long-term stroke after surgery to improve outcomes for patients. Researchers found several [risk factors](#) for stroke, both in the immediate postoperative period and up to two years after, including previous stroke, [peripheral vascular disease](#) (narrowing or obstruction of arteries), valve surgery and age 65 years or older. Patients who have atrial fibrillation after surgery are at risk of stroke in the postoperative period. The role of early anticoagulation therapy should be explored in future research.

"Our study adds more than 100,000 patients to [the] literature, with 18,046 (18.2%) who had postoperative atrial fibrillation, in whom there was a strong signal that this arrhythmia is associated with an increased risk of early stroke," writes Dr. Richard Whitlock, Population Health Research Institute, McMaster University, Hamilton, Ontario, with coauthors.

As well, patients who score higher on the CHADS2 score, a rule used by physicians to determine a patient's risk of stroke, are at increased risk of stroke with or without atrial fibrillation.

"The rate of stroke or death in the absence of any atrial fibrillation was 5.8% among patients with a CHADS2 score of 0 or 1, as compared with 14.8% among those with a higher score. In the group of patients who had a history of atrial fibrillation, the rate of stroke or death at 2 years was 9.3% among those with a CHADS2 score of 0 or 1, as compared with 19.9% among those with a higher score," write the authors.

This large study contributes to the understanding of longer-term [stroke](#) risks in [cardiac surgery](#) patients.

**More information:** *Canadian Medical Association Journal*,  
[www.cmaj.ca/lookup/doi/10.1503/cmaj.131214](http://www.cmaj.ca/lookup/doi/10.1503/cmaj.131214)

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