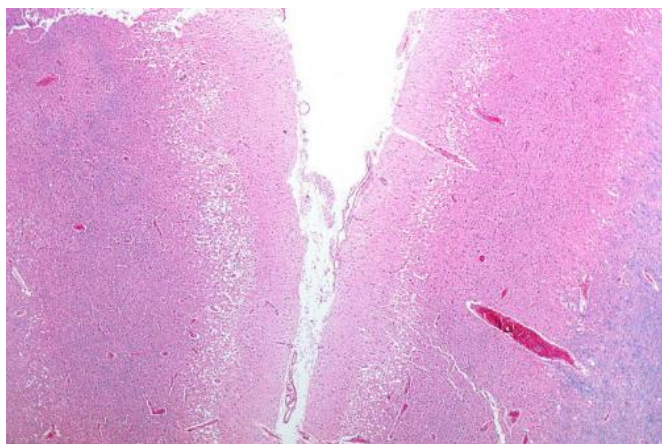


Adults born with heart defects have a substantially higher risk of stroke

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Micrograph showing cortical pseudolaminar necrosis, a finding seen in strokes on medical imaging and at autopsy. H&E-LFB stain. Credit: Nephron/Wikipedia

Adults with congenital heart defects have substantially higher rates of stroke compared to the general population, according to research published in the American Heart Association journal, *Circulation*.

A [congenital heart defect](#) is a heart abnormality present at birth. These defects encompass a wide range of disease entities, some presenting as life threatening conditions soon after birth, others only developing symptoms later in adulthood.

Seeking to uncover the frequency, risk and strongest predictors of [stroke](#), researchers analyzed stroke data on 29,638 [congenital heart disease](#) patients, 18-64 years old, and compared rates with those observed in the [general population](#) of Quebec, Canada. They found:

- Stroke rates caused by a blood clot blocking a cerebral artery, known as ischemic stroke, was roughly 9 to 12 times higher in adults with congenital heart

defects before the age of 55, and 2 to 4 times higher in patients between the ages 55 and 64.

- Stroke rates from a bleed in the brain, known as [hemorrhagic stroke](#), was 5 to 6 times higher in adults with congenital heart defects before the age of 55, and 2 to 3 times higher in patients between the ages of 55 and 64.
- 8.9 percent of men and 6.8 percent of women with congenital heart defects experienced at least one stroke before age 65.
- Heart failure, diabetes and recent heart attacks were the strongest predictors of [ischemic stroke](#) in adults with heart defects.

"We knew there was a connection between heart failure and stroke in patients with heart defects, but we were surprised to discover it was the strongest predictor," said Ariane Marelli, M.D., M.P.H., study senior author and professor of medicine at McGill University in Montreal, Quebec, Canada. "Our study also suggests that other well-known risk factors for stroke, such as irregular heartbeat and high blood pressure may be under-detected in patients born with a heart defect," said Jonas Lanz, M.D., M.Sc., first author of the study and research fellow at McGill University.

Because adults with heart defects are more susceptible to strokes, Marelli stressed the importance of regular visits to a cardiologist to help reduce the risk through timely detection and treatment of modifiable risk factors.

Stroke is the fifth leading cause of death in the United States, claiming nearly 129,000 lives every year, according to the AHA/ASA.

"Patients, their families and friends should also learn the F.A.S.T. signs to recognize stroke and understand how to get professional medical help quickly if they believe they are having a stroke,"

Marelli said.

More information: *Circulation*,
[dx.doi.org/10.1161/CIRCULATIONAHA.115.01124](https://doi.org/10.1161/CIRCULATIONAHA.115.01124)
[1](#)

Provided by American Heart Association

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