

Clogged heart arteries can foreshadow stroke

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Blockages in your heart arteries could mean you're more likely to have a stroke, even if you're considered low risk, according to research in the American Heart Association journal *Stroke*.

"This study demonstrates that stroke risk is tightly aligned with [coronary atherosclerosis](#), showing the closely related nature of cardiovascular and cerebrovascular disease," said Dirk M. Hermann, M.D., the study's lead investigator and professor of vascular neurology and dementia at the University Hospital Essen in Germany.

"This raises the need for intensified interdisciplinary efforts for providing adequate disease prevention and management strategies."

In the study, researchers used the non-invasive electron beam-computed tomography, a variation of the conventional CT scan, to determine how much plaque had built up in the coronary arteries of 4,180 patients who had no previous strokes or heart attacks. The patients, men and women 45-75 years old, were followed for about eight years.

During the study, 92 strokes occurred.

The blockages, caused by [coronary artery calcification](#) (CAC), were significantly higher in those who had a stroke than those who didn't. Those who had CAC levels of more than 400 Hounsfield units (HU), a density measurement, were three times more likely to have a stroke than those with CAC levels below 399 HU. CAC measurements were more potent in predicting stroke in patients younger than 65 and those at low

risk for cardiovascular disease, researchers said.

CAC levels were an accurate predictor of stroke in men and women regardless of whether patients suffered from atrial fibrillation, a form of irregular heartbeat often associated with stroke.

"Not only atrial fibrillation but also CAC has to be taken into account as a marker of risk for stroke events," Hermann said. Study patients who suffered a stroke were about 65 years old, had a higher [body mass index](#) and were more likely to have high blood pressure, diabetes and [high cholesterol levels](#). Although the study was conducted in Germany, Hermann said the findings among the middle-aged participants are likely generalizable to Americans in the same age group.

Provided by American Heart Association

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