

Atrial arrhythmias detected by pacemakers increase risk of stroke

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An irregular heartbeat that you don't even feel but can be picked up by a pacemaker is associated with a significantly increased risk of stroke, says a new McMaster University study.

The report, published in the [New England Journal of Medicine](#) today, says that of nearly 2,600 patients without a history of [atrial fibrillation](#) but with a recently implanted pacemaker, more than one-third had episodes when the heartbeat would become rapid and irregular for more than six minutes.

In 85 per cent of these patients, the [irregular heartbeat](#) did not cause any symptoms and was only detected by the modern pacemakers. Those who had one of these asymptomatic atrial arrhythmias in the first three months had more than twice the risk of stroke or embolism compared to others.

The international research team based at the Population Health Research Institute was led by Dr. Jeff Healey, an associate professor of medicine of the Michael G. DeGroote School of Medicine at McMaster.

"This study suggests that silent atrial fibrillation is very common and may be the cause of many strokes that previously could not be explained. In all, atrial fibrillation may be responsible for nearly 1 in 5 strokes," said Healey. "This is an important observation as we have very effective and specific therapies to prevent stroke in patients with atrial fibrillation, once this heart rhythm disturbance is identified."

The Asymptomatic Stroke and Atrial Fibrillation Evaluation in Pacemaker Patients Trial (ASSERT) was a [prospective cohort study](#) conducted in 23 countries with 136 centres, to explore the relationship between device-detected atrial arrhythmias and stroke. The study participants were 65 years old or older, with a history of hypertension but no history of atrial fibrillation. They were followed for approximately 2.5 years.

Provided by McMaster University

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