

# Statin use is associated with lower risk of stroke in patients with atrial fibrillation

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A region-wide study in more than 50,000 patients with atrial fibrillation has found reduced risks of stroke and transient ischemic attack in those who started statins within a year of diagnosis compared with those who

did not. The findings are presented at [EHRA 2023](#), a scientific congress of the European Society of Cardiology (ESC), held April 16–18 in Barcelona.

"Our study indicates that taking [statins](#) for many years was even more protective against [stroke](#) than short-term use," said study author Ms. Jiayi Huang, a Ph.D. student at the University of Hong Kong, China.

Atrial fibrillation is the most common heart rhythm disorder, affecting more than 40 million people worldwide. Patients with the condition have a five times greater risk of stroke than their peers. Anticoagulant medication is recommended to prevent strokes in those with [atrial fibrillation](#) but does not completely eliminate risk. Statin therapy is widely prescribed to lower blood cholesterol and reduce the likelihood of heart attack and stroke. However, the benefit of statins for stroke prevention in patients with atrial fibrillation has been unclear.

This study evaluated the association between statin use and the incidence of stroke and transient ischemic attack in patients with atrial fibrillation. The researchers used the Hong Kong Clinical Data Analysis and Reporting System to identify all patients with a new diagnosis of atrial fibrillation between 2010 and 2018. Participants were divided into two groups: statin users and non-users. Users had received statins for at least 90 consecutive days during the year after being diagnosed with atrial fibrillation.

The primary outcomes were the combined endpoint of ischemic stroke or systemic embolism; hemorrhagic stroke; and transient ischemic attack. Patients were followed until the occurrence of the primary outcomes, death or the end of the study on 31 October 2022.

A total of 51,472 patients with a new diagnosis of atrial fibrillation were included, of which 11,866 were classified as statin users and 39,606

were non-users. The median age of participants was 75 years and 48% were women. During a median follow up of five years, [statin](#) users had a significantly lower risk of all primary outcomes compared to non-users. Statin use was associated with a 17% reduced risk of ischemic stroke or systemic embolism (hazard ratio [HR] 0.83; 95% confidence interval [CI] 0.78–0.89), a 7% reduced risk of hemorrhagic stroke (HR 0.93; 95% CI 0.89–0.98) and a 15% reduced risk of transient ischemic attack (HR 0.85; 95% CI 0.80–0.90).

The researchers also found that long-term [statin use](#) was associated with greater protection than short-term use. Compared to those taking the medication for between three months and two years, patients using statins for six years or longer had a 43% lower risk of ischemic stroke or systemic embolism (HR 0.57; 95% CI 0.54–0.61), 44% reduced likelihood of hemorrhagic stroke (HR 0.56; 95% CI 0.53–0.60) and 42% reduced risk of transient ischemic attack (HR 0.58; 95% CI 0.52–0.64). These associations were consistent regardless of whether or not patients used [anticoagulant medication](#) and the type of anticoagulant.

Ms. Huang said, "These data support the use of statins to prevent stroke and transient ischemic attack in patients with new-onset atrial fibrillation. The findings have important clinical implications particularly given that in atrial fibrillation [patients](#), ischemic strokes are often fatal or disabling, and have a high risk of recurrence."

Provided by European Society of Cardiology

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