

African Americans with atrial fibrillation at significantly higher risk for stroke compared to Caucasians

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African Americans with atrial fibrillation (AF) - a quivering or irregular heartbeat that can lead to a host of dangerous complications - have a significantly higher risk of stroke than Caucasians with the condition, according to new research published today in *Heart Rhythm* by researchers from the Perelman School of Medicine at the University of Pennsylvania. The new findings build on previous studies examining the impact of race on the risk of developing atrial fibrillation (AF), which is linked to blood clots, stroke, heart failure and other complications. It's well reported that African Americans have a lower risk of developing AF as compared to Caucasians, but until now, there was little data on the additional risks that come with AF for each race.

"To date, large phase-3 clinical trials that have evaluated the safety and efficacy of novel blood-thinner medications for AF have enrolled very few African American participants, which left us with little data about risks for this patient population," said study's senior author Rajat Deo, MD, MTR an associate professor of Cardiovascular Medicine in the Perelman School of Medicine at the University of Pennsylvania. "Now, having identified that African Americans with AF are more at [risk](#) for [stroke](#) will allow us to more proactively monitor and treat these [patients](#) before an adverse event occurs."

In the United States alone, it's estimated by the Centers of Disease Control and Prevention that between three and six million Americans

have AF - a number that is expected to rise as the population ages.

Researchers created the Penn Atrial Fibrillation Free Study, a centralized pool of patient data from across the University of Pennsylvania Health System, which was comprised of 56,835 patients without a history of atrial [fibrillation](#) or a remote history of stroke. Of these, 3,507 developed AF—the inception cohort used for the current study. The study design was unique in that researchers had a time point that represented the initial diagnosis of atrial fibrillation. This approach provided an opportunity to examine the risk of stroke during a six-month period prior to a formal, clinical diagnosis of atrial fibrillation. Until now, no prior study has examined stroke risk in this period prior to a diagnosis of atrial fibrillation.

These data demonstrate the potential importance of early detection of atrial fibrillation. In fact, it showed that of the 538 observed strokes in the patients in the inception cohort, 254 occurred prior to AF diagnosis, and in many cases, the stroke was the presenting condition for newly diagnosed AF patients. Compared to Caucasians, African Americans have an increased risk of stroke both before and after atrial fibrillation diagnosis. As such, certain anticoagulation medications could help mitigate this risk of stroke, especially if AF is detected early.

"These findings indicate that a more rigorous effort to identify individuals from the community with [atrial fibrillation](#) may result in a reduction in overall stroke burden," said Deo. "Evolving mobile and wearable technologies are providing individuals the opportunity to acquire cardiac rhythm data. Our findings highlight a need to make these technologies available to diverse populations and a need to understand how to process this data once received in order to enhance the care of our diverse populations."

Provided by Perelman School of Medicine at the University of Pennsylvania

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