

Migraines that affect vision may increase risk of irregular heartbeat

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Credit: Sasha Wolff/Wikipedia

People who experience migraine with visual aura may have an increased risk of an irregular heartbeat called atrial fibrillation, according to a

study published in the November 14, 2018, online issue of *Neurology*, the medical journal of the American Academy of Neurology. Migraine with visual aura is when disturbances in vision occur right before head pain begins. Those disturbances may include seeing wavy lines or flashes of light, or having blurry vision or blind spots.

With atrial [fibrillation](#), a form of arrhythmia, the heart's normal rhythm is out of sync. As a result, blood may pool in the heart, possibly forming clots that may go to the brain, causing a stroke.

"Since atrial fibrillation is a common source of strokes caused by blood clots, and previous research has shown a link between migraine with aura and stroke, we wanted to see if people who have migraine with aura also have a higher rate of atrial fibrillation," said study author Souvik Sen, MD, MS, MPH, of the University of South Carolina in Columbia.

"Atrial fibrillation can be managed through medication, but many people do not realize that they have atrial fibrillation."

For the study, 11,939 people with an average age of 60 without prior atrial fibrillation or stroke were evaluated for headache. Of those 9,405 did not have headache and 1,516 had migraine. Of those who had migraine, 426 had migraine with visual aura. The participants were followed for up to 20 years.

During the study, 1,623 people without headache, or 17 percent, developed atrial fibrillation while 80 of 440 people with migraine with aura, or 18 percent, developed the condition and 152 of 1,105 people with migraine without aura, or 14 percent.

After adjusting for age, sex, blood pressure, smoking and other factors that could affect risk of atrial fibrillation, people with migraine with aura were found to be 30 percent more likely to develop the condition than people who did not have headaches and 40 percent more likely to

develop atrial fibrillation than people with migraine with no aura.

The results translate to an estimated nine out of 1,000 people with migraine with aura having atrial fibrillation compared to seven out of 1,000 people with migraine without aura. Researchers also found that the rate of stroke in the migraine with aura group was four out of 1,000 people annually compared to two out of 1,000 people annually in those with migraine without aura, and three of 1,000 people annually in those with no headache.

"Our research suggests that atrial fibrillation may play a role in [stroke](#) in those with migraine with visual aura," said Sen. "It is important to note that people with migraine with aura may be at a higher risk of atrial fibrillation due to problems with the autonomic nervous system, which helps control the heart and blood vessels. More research is needed to determine if people with migraine with visual [aura](#) should be screened for [atrial fibrillation](#)."

A limitation of the study was that the definition of migraine may have left out people who had migraines that lasted less than one year or who had a history of migraine at younger ages. There was also limited information on [migraine](#) medications that may influence heart rate.

Provided by American Academy of Neurology

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