

Researchers study whether yoga can calm overactive hearts

April 9 2009, By Alan Bavley

Can doing the downward-facing dog keep your heart from racing out of control? Alicia Jones is hoping so.

Jones has a condition called [atrial fibrillation](#) that has revved up her heart to 250 pounding beats per minute. So fast that she's gone to the emergency room to have her heart shocked back to normal rhythm.

Now Jones is in a first-of-its-kind study at the University of Kansas Hospital to see whether [yoga](#) can help calm the overactive hearts of people with atrial fibrillation.

"I truly believe these heart episodes are from [stress](#) and aren't just physical," Jones, 32, of Olathe, Kan., said after her first yoga class. "If I can carry this peace and calmness I have now through my life, it will help."

Yoga, with its meditation, breathing exercises and sometimes-difficult poses, has been practiced for more than 5,000 years. Because it's known for its ability to bring inner peace, yoga often is recommended to heart and cancer patients as a way to relieve stress.

Research suggests that yoga can lower blood pressure and slow the [heart rate](#). But there's been little study aimed at using yoga as a medical treatment.

Conventional medicine doesn't make much room for alternative

practices, said Dhanunjaya Lakkireddy, the University of Kansas cardiologist who is leading the study.

And yoga just doesn't have the kind of profit potential that would free up research dollars, Lakkireddy said.

"Yoga is cheap; it doesn't have the bling that comes from a drug or a catheter or a stent," he said.

"There's nobody who's going to benefit financially from yoga. The yoga studios may benefit, but it's not a lot of money."

Lakkireddy, who specializes in rhythm disorders of the heart, was born and raised in India. His grandfather was a yoga instructor. But Lakkireddy gave up yoga when he was a teenager and started practicing again only recently.

When a few of his patients told him yoga helped dampen their atrial fibrillation, he decided to take a scientific look. Three of his patients contributed a total of about \$10,000 to pay for his study.

Study participants wear a portable heart monitor for three months to record episodes of atrial fibrillation.

They continue wearing the monitor for another three months as they go to weekly classes at the Darling Yoga studio in Overland Park, Kan., and do yoga on their own.

Lakkireddy plans to enroll 50 people, and is still looking for participants.

More than 2 million people in the United States have atrial fibrillation. Left untreated, it can lead to stroke, heart attack or heart failure.

The condition affects the two upper chambers, or atria, of the heart. Faulty nerve impulses cause the chambers to beat furiously.

"It feels like your heart is pounding out of your chest," Lakkireddy said.

Atrial fibrillation may happen just once a year, or as often as 10 times a day.

Some people, like Alicia Jones, need a jolt of electricity to stop their heart from racing.

Age and genetics are the main risk factors for developing atrial fibrillation. But certain heart surgeries, smoking, drinking, obesity and thyroid disease also can play a role.

More than a half dozen drugs are available to treat atrial fibrillation. But they don't work for every patient, and even when they do, they can lose their effectiveness over time.

There also is a heart procedure that destroys electrical "hot spots" that trigger atrial fibrillation. It works about 70 to 80 percent of the time.

Lakkireddy is hoping yoga can reduce or even eliminate the need for medications.

His theory is that yoga may act on the autonomic nervous system -- the body's own yin and yang -- to bring it into balance.

The autonomic system has two components:

- The sympathetic nervous system produces the "fight or flight" response of rapid heartbeat and elevated blood pressure.

- And the parasympathetic system slows the pulse and lowers blood pressure.

"If we can bring them into equilibrium, then we can reduce the irritability of the heart," Lakkireddy said.

"But we need proof whether it works or not. Not just the patients saying, 'Oh, I don't have palpitations anymore.'"

Yoga may hold potential for people with atrial fibrillation, said Gerald Fletcher, a cardiologist with the Mayo Clinic in Jacksonville, Fla., and a national spokesman for the American Heart Association.

"If yoga helps them relax, it can be beneficial," Fletcher said. "It could be a very simple way to alter your parasympathetic and sympathetic dynamics, a very simple way."

But Fletcher wouldn't recommend yoga as a way to prevent heart disease—the scientific evidence favors more intense, aerobic exercise, such as swimming or jogging.

"The better trained you are, the higher intensity exercise you can do, the less risk you have of heart disease," Fletcher said. "It makes a difference."

Even if evidence of yoga's benefits to heart patients mounts, physicians may be slow to adopt it, said Stuart Zarich, a cardiologist at Bridgeport Hospital in Connecticut.

Zarich published a study in 2006 showing that for patients with coronary artery disease, a six-week course of yoga and meditation improved the ability of their blood vessels to contract and expand to assist blood flow.

"I think yoga is gaining some steam, but it's not very likely to be recommended," Zarich said. "Doctors are trained as scientists. I don't think the mind-body connection is something they can get their arms around."

But Adam Elliott, one of Lakkireddy's subjects, is ready to make that connection.

Elliott, 38, of Overland Park has a degree in sports psychology, but he's found it hard to exercise himself since he developed atrial fibrillation a half-dozen years ago.

"I think we spend so much time in our heads. Yoga gets us out of our heads," Elliott said. "And this is a good chance to become more active again."

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