

Heart TALK

Heart-healthy and Stroke-free Living with Dr. Amy L. Doneen, DNP, ARNP

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*Thoughts from
Dr. Amy*

Joe Biden's Atrial Fibrillation: Is This Dangerous Heartbeat Disorder Preventable?



Matt Smith Photographer / Shutterstock.com

Presidential candidates Joe Biden and Michael Bloomberg have released doctors' letters saying that they have atrial fibrillation (AF), an irregular heartbeat that quintuples risk for stroke and doubles it for heart attack and dementia. Both men are 77, take heart medications and are being treated for several medical conditions, but they have been pronounced healthy and fit for office by their medical providers.

Rates of AF have quadrupled in the U.S. over the past 50 years — and the disorder was recently described as a “global epidemic” in the American Heart Association's journal *Circulation*. Yet this heart arrhythmia is potentially preventable, often with simple lifestyle changes. Here's a look at the latest research and a new blood test that checks for a genetic variant that greatly increases your risk of developing this serious, but treatable, disorder.

HOW DOES AF AFFECT THE HEART?

AF is the most common type of heart arrhythmia, affecting up to 6.1 million Americans. It occurs when the heart's two upper chambers (the atria) develop chaotic electrical signals. This causes the atria to squeeze very quickly in a disor-

ganized rhythm and get out of sync with the two lower chambers (the ventricles).

AF causes blood to pool in the heart, which may cause blood clots. If a clot travels to an artery in the brain, a stroke can result. Up to 20 percent of strokes occur in people with AF. Similarly, if a clot obstructs one of the arteries that supply the heart, the result can be a heart attack. People with AF are also at increased risk for heart failure, dementia and sudden cardiac death, particularly if their disorder goes undiagnosed and untreated.

WHO IS AT RISK FOR AF?

AF is most common in older adults — and the aging of the population is one of the main reasons why rates of this disorder are on the rise. It's also more likely

to strike people who have cardiovascular disease (CVD). For example, Bloomberg, the former mayor of New York City, has CVD that was treated in 2000 with the placement of two stents to prop open obstructed heart arteries, according to his doctor's report.

Genes also play a role. People with a genetic variant called 4q25 have a 140 percent higher risk for AF and 130 percent high risk for strokes caused by blood clots originating in the heart (cardiothrombotic stroke), compared to noncarriers of this gene. About one in three people carry the 4q25 genetic variant. The gene can be detected with a simple blood test, available at medical labs all over the U.S. if ordered by a medical provider.

CONTINUED ON PAGE 4

The Spice of Longer Life and Better Heart and Brain Health



Chilies have been used as a food and medicine for at least 8,000 years. Now, literally hot off the presses, a new study suggests that eating these fiery fruits could save your life. The researchers reported that people who ate chili peppers regularly lived longer and had much lower risk for fatal heart attacks and strokes than those who ate chilies rarely or never.

What's more, the cardiovascular benefits of chilies are independent of other risk factors for heart disease or the type of diet a person follows, according to the study, which was published in *Journal of the American College of Cardiology* on December 24. How do these fiery fruits help protect your brain, heart and arterial wellness? Here's a look at the study and key takeaways from the BaleDoneen Method.

WHAT DID THE STUDY DISCOVER?

The researchers studied a Mediterranean cohort of nearly 23,000 men and women who were randomly recruited from Molise, Italy. Participants completed a food frequency questionnaire and their rates of death from various causes over the next 8.2 years was analyzed. About 24 percent of participants ate chilies four or more times a week and 34 percent ate them rarely or never.

After adjustments for age, sex and caloric intake, the results for the two groups were as follows:

- People who ate chili peppers frequently had a 40 percent lower risk for dying from a heart attack than those who ate chilies rarely or never.
- Risk for fatal stroke was halved in the group that ate chilies frequently.
- Frequent eaters of chilies had a 33 percent lower risk for death of any cause during the study period.
- Survival benefits of eating chilies were stronger in people without high blood pressure.
- Consumption of chili peppers had no effect on the rate of cancer deaths.

DID EVERYONE IN THE STUDY EAT A MEDITERRANEAN DIET?

"An interesting fact is that protection from mortality risk was independent of the type of diet people followed," study lead author Marialaura Bonaccio, an epidemiologist at the Mediterranean Neurological Institute, [told CNN](#).

"In other words, someone can follow the healthy Mediterranean diet, someone else can eat less healthily, but for all of them chili pepper has a protective effect," she added.

WHAT'S SO HOT ABOUT CHILI PEPPERS?

Scientists believe that capsaicin — the compound that gives chilies their firepower — may be what accounts for the fruit's healthy effects. The ancient Mayans included chilies in medicines to treat infected wounds, GI upset and earaches. Recent studies have reported that chili pepper extracts kill a number of germs. Capsaicin also has anesthetic effects and is an ingredient in certain creams, nasal sprays and skin patches to relieve pain.

The study authors report that capsaicin, "has been observed to favorably

improve cardiovascular function and metabolic regulation in experimental and population studies." They also state that this fiery compound is known to have anti-inflammatory properties that contribute to its protective effects on arteries.

WHAT DO OTHER STUDIES SAY ABOUT CHILI PEPPERS AND HEART HEALTH?

In 2015, [a Chinese study](#) linked eating spicy foods, including chilies, six or seven times a week to a 14 percent lower risk for death from any cause and a 22 percent lower risk for death from ischemic heart disease. In women, eating spicy foods was also associated with a lower risk of death from infections.

The study included more than 500,000 people who were tracked for a median of seven years. The researchers also analyzed results for people who ate fresh chili pepper as their favorite spice and found greater reductions in deaths from cancer, ischemic heart disease, and diabetes in this group than in people who seldom ate fresh chilies.

A 2017 U.S. National Health and Nutrition Examination study reported

CONTINUED ON PAGE 3

Superb as an appetizer or main course, this deliciously spicy recipe wakes up your taste buds and boosts your arterial wellness. A new study reports that eating chilies frequently reduces risk for fatal heart attacks and strokes by up to 50 percent. Rich in omega-3 fatty acids, nuts also have impressive cardiovascular benefits, including helping to lower blood pressure, cholesterol and blood sugar. Adding to the recipe's tasty and heart-healthy ingredients, eggplants are a good source of fiber and disease-fighting antioxidants. Select chilies that are 3-4 inches long — and serve them with your favorite salad or grilled veggies of your choice.

INGREDIENTS

- 12 chili peppers (try hot red peppers, jalapeño, poblano or other spicy peppers)
- 4 green onions
- 1 cup of cooked, chopped shrimp, chicken, turkey, tofu or other vegetarian protein
- 1 small Japanese eggplant, chopped
- 1 to 2 tablespoons Thai red curry paste, to taste
- ½ cup roasted cashews
- 1 tablespoon minced fresh ginger
- 2 garlic cloves
- 1 egg
- ¼ teaspoon black pepper, freshly ground
- 3 tablespoons fresh coriander or basil, chopped, for garnish



PREPARATION

Preheat oven to 350°F. To clean chilies, wear rubber or latex gloves and avoid touching eyes. Slit each chili from stem to tip, taking care not to cut through to the other side. Open each chili and use a teaspoon to scoop out seeds and inner rind. Rinse in cold water to remove any remaining seeds, then set cleaned chilies aside. Slice white bulbs of the onions and set long green stems aside for later use. Place onion bulb slices and all other remaining ingredients, except coriander or parsley, in a food processor or chopper. Coarsely chop, and then stuff chilies with the mixture. Gently tie one green onion stem around each stuffed chili to hold closed. Bake uncovered for 20 to 25 minutes or until peppers are tender and skins start to brown. Top with chopped coriander or basil and enjoy! Serves four to six.

Adapted from thespruceeats.com and omyveggies.com.

CONTINUED FROM PAGE 2

a 36 percent lower rate of all-cause mortality in people who ate hot red chili peppers vs. those who did not. Participants were tracked for about 19 years.

DOES THE NEW STUDY PROVE THAT CHILIES PREVENT HEART ATTACKS AND STROKES?

This type of study is not designed to show a cause-and-effect relationship between eating chili peppers and longer life or better cardiovascular health, just an association. It may be that people who eat the pungent fruits also have other healthy habits, such as eating more fresh fruits and vegetables.

A diet high in fresh produce has been linked in many studies to protection against heart attacks and strokes — and is strongly advised by the BaleDoneen Method. We also recommend [a diet based on your DNA](#) to personalize your eating plan for optimal arterial health.

For more food-related news, check out these blog posts: [“The Amazing Heart Health Benefits of Cutting 300 Calories a Day.”](#) [“The 10 Best and Worst Foods for Your Heart and Brain Health”](#) and [“Which is Worse for Your Heart: Saturated Fat or Sugar?”](#) Also visit our collection of [heart-healthy recipes](#) for menu inspiration.



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CONTINUED FROM PAGE 1



WHO SHOULD GET THE 4Q25 GENETIC TEST?

Based on the recent studies, the BaleDoneen Method recommends the test for people with any of the following red flags for increased risk of developing AF:

- Diabetes
- Cardiovascular disease
- Obesity and/or poor cardiovascular fitness
- A resting heart rate above 84 beats per minute
- Obstructive sleep apnea
- High blood pressure
- Chronic obstructive pulmonary disease (COPD)
- Rheumatoid arthritis
- Low levels of magnesium and/or potassium
- Thyroid disorders
- Kidney disease
- A family history of AF
- Use of alendronate (an osteoporosis medication sold under such brand names as Fosamax and Binosto)
- Having an ischemic (clot-caused) stroke, particularly if the cause was unclear
- Advanced age (AF is most common in people ages 65 and older)

WHAT CAN YOU DO TO LOWER YOUR RISK FOR DEVELOPING AF?

The same strategies that help keep your heart healthy can also cut your risk for AF, such as exercising regularly, maintaining a healthy weight, avoiding nicotine use or exposure and eating a heart-healthy diet. Recent studies also reveal other simple strategies to keep AF at bay:

• **If your blood pressure is high, work with your medical provider to lower it.** Reducing your systolic blood pressure (the top number) to less than 130 mmHG cuts risk for AF by 30 percent, compared to pressure above 142. For people at particularly high risk for AF, medication may be advised, along with lifestyle improvement.

• **Eat foods that are high in Omega-3 fatty acids.** In a recent study, people with the highest levels of Omega-3 in their blood had a 39 percent lower rate of AF, compared to peers with the lowest levels. Omega-3 fatty acids are found in oily fish (such as salmon, tuna, lake trout, sardines and herring), nuts, flax seeds, vegetable oils and leafy green vegetables. If

your Omega-3 levels are low, ask your medical provider if a supplement is right for you.

• **Use extra-virgin olive oil.** In a recent study of adults age 55 and older, those who ate a Mediterranean diet that included 50 grams (about 4 teaspoons) of extra-virgin olive oil daily had a 38 percent lower risk for AF, compared to a control group. The BaleDoneen Method recommends [a diet based on your DNA](#) as one of the best ways to protect your heart and brain health.

• **Drink coffee.** Most studies report that drinking two to three cups daily is safe and either neutral or beneficial in protecting against AF and stroke. Coffee consumption is also linked to lower risk for diabetes, high blood pressure, obesity and depression. However, some people carry [a variant of the CYP1A2 gene](#) that makes them metabolize caffeine slowly. In this group, coffee may be harmful to heart health. For example, [a study of moderate and heavy drinkers of coffee](#) found that the slow metabolizers were much more likely to develop high blood pressure than rapid metabolizers.