Chocolate may be good medicine for reducing the risk of an irregular heartbeat, study says

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Medical researchers have identified a compound that may reduce your risk of a dangerous type of heart rhythm that can lead to strokes, [dementia](http://www.latimes.com/topic/health/diseases-illnesses/alzheimers-disease-HEDAI000007-topic.html), heart failure and early death.

In a study of more than 55,000 Danish men and women who were tracked for up to 16 years, people who used this compound were up to 20% less likely to experience the heart condition. In general, the higher the dose, the lower the risk.

What is this wonder drug? Chocolate.

The researchers, led by [Elizabeth Mostofsky](http://www.bidmc.org/Research/Departments/Medicine/Divisions/Cardiovascular-Medicine/Cardiovascular-Epidemiology/Elizabeth-Mostofsky.aspx), an epidemiologist who studies risk factors for cardiovascular disease at Boston’s Beth Israel Deaconess Medical Center, weren’t the first to look for evidence that chocolate might prevent some cases of the dangerous heart rhythm, called [atrial fibrillation](https://www.nhlbi.nih.gov/health/health-topics/topics/af).

In one previous [study](http://http/www.ajconline.org/article/S0002-9149(15)01333-8/abstract), researchers were unable to find a link between chocolate consumption and self-reported cases of atrial fibrillation among nearly 19,000 American doctors participating in the Physicians’ Health Study. Another group of researchers also [struck out](http://ajcn.nutrition.org/content/92/3/509.long) when they examined more than 33,000 Americans who were part of the Women’s Health Study.

But Motosfsky and her colleagues had reason to believe they would find a connection. Atrial fibrillation is believed to result from the release of certain molecules that ultimately damage heart tissue. That damage changes the way electrical signals travel through the chambers of the heart, causing one’s heartbeat to flutter instead of beating in a steady rhythm.

Ingredients in chocolate are known to counteract some of these problems. For instance, chocolate contains flavanols that can prevent the kind of inflammation that can lead to tissue damage. They may also counteract the clots that could form when an irregular heartbeat allows blood to pool up in the heart.

So the researchers examined data from the [Danish Diet, Cancer and Health Study](https://www.cancer.dk/research/diet-genes-environment/dgedch/). Participants enrolled during the 1990s, when they were between the ages of 50 and 64. At the time, they completed detailed questionnaires on the foods they ate and how often they ate them.

By December 2009, the researchers found 3,346 clinically confirmed cases of atrial fibrillation, or AF, among the 55,502 people in the study. They also found a pattern to those cases.

Compared with the people who ate chocolate less than once a month, those who ate it one to three times a month were 10% less likely to develop AF. Study participants who ate chocolate once a week were 17% less likely to have AF, and those who ate it two to six times a week fared best, with a 20% lower risk. For daily chocolate eaters, the risk of AF was 16% lower than for people who indulged less than once a month.

Although men were more likely than women to develop AF, the benefits of chocolate were seen in both genders. Among men, the risk was lowest for those who ate chocolate two to six times per week; among women, the risk was lowest for those who ate it just once a week.

The statistical analysis controlled for factors like blood pressure, cholesterol and body mass index that might be linked to both chocolate-eating and AF. All of these results were statistically significant, the researchers reported.

The [results](http://heart.bmj.com/content/early/2017/05/01/heartjnl-2016-310357) were published this week in the journal Heart.

The authors wrote that their study may have turned out differently than the previous ones because chocolate in Denmark contains more cocoa — the suspected beneficial ingredient — than it does in the U.S. Here, milk chocolate must have at least 10% cocoa solids, and dark chocolate must have at least 35%. In Denmark, the requirements are 30% and 43%, respectively.

Another difference is that the new study measured cases of “clinically apparent” atrial fibrillation that were recorded in Denmark’s national health records. The American studies relied on self-reports of AF.

Although the study shows a clear link between chocolate consumption and the risk of atrial fibrillation, it doesn’t prove that chocolate was responsible for the reduced AF risk. That would require a different kind of study in which volunteers are randomly assigned to eat certain amounts of chocolate — or none at all.

So if you’re one of the [millions of people](https://www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_atrial_fibrillation.htm) who has atrial fibrillation, don’t count on chocolate to resolve your medical problem.

Chocolate is full of sugar, fat and calories, Mostofsky warned in a statement. “But moderate intake of chocolate with high cocoa content may be a healthy choice,” she said.