

# Heart TALK

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

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## Thoughts from Dr. Amy

### Dark Chocolate: A Delicious Prescription to Boost Heart Health

When Hippocrates wrote, "Let food be thy medicine," he may have been referring to dark chocolate, which has such a wide array of cardiovascular benefits that the BaleDoneen Method® prescribes 7 grams of dark chocolate daily (one small square) for heart attack and stroke prevention. Nibbling on the sweet treat may also protect against cancer, some studies suggest.



Derived from the pods of the cacao tree, whose botanical name, theobroma means "food of the gods," dark chocolate is rich in flavanols, disease-fighting antioxidant compounds also found in tea, wine, fruits and vegetables. Here's a look at science-backed reasons why eating dark chocolate (which has a much higher cacao content than milk chocolate) can literally do your heart good.

- **Chocolate may help prevent irregular heartbeats.**

In a new Harvard study that included more than 55,000 people, eating moderate amount of chocolate lowered risk for atrial fibrillation (AF), a common and dangerous type of heart arrhythmia that elevates risk for stroke, heart failure, cognitive decline, dementia and early death. The researchers tracked participants for 13 years and found that those who consumed two to six one-ounce servings of chocolate a week had a 20% lower rate of AF, compared to people who ate chocolate less than once a month, even when other risk factors were taken into account. Results were similar for both men and women, report the researchers, who also report that eating large amounts of the high-calorie treat is not recommended because that could lead to weight gain and metabolic syndrome (a cluster of heart attack and diabetes risk factors).

- **Lower risk for heart attacks and strokes.**

In a study of nearly 20,000 people, ages 35 to 65, those who ate the most chocolate had a 39% lower risk for heart attack and stroke. Participants were tracked for about eight years. The researchers also linked chocolate consumption to lower blood pressure, a factor that may explain its protective properties, since high blood pressure is the leading risk for stroke and a major contributor to heart attacks. While these findings may sound like license to pig out on the sweet treat, the study also reported that the people who ate the most chocolate consumed an average of 7 grams daily, which is the amount the BaleDoneen Method recommends.

- **Protection against high blood pressure during pregnancy.**

A Yale study of 2,291 pregnant women found that who ate more than five servings of chocolate a week reduced their risk of developing pre-eclampsia, pregnancy-induced high blood pressure, by up to 40 percent, compared to women who ate less than one serving a week. Pre-eclampsia is a potentially life-threatening pregnancy complication that affects about 5% of American moms-to-be. Women who develop it are at increased risk for heart disease later in life. The researchers attribute the protective qualities of chocolate to one of the compounds it contains: theobromin.

- **Cardiovascular disease prevention.**

Researchers first discovered that chocolate can enhance heart health from studies of the Kuna Indians of Panama's San Blas islands, who rarely develop cardiovascular disease (CVD) or high blood pressure. Yet if they moved to Panama City and gave up their indigenous diet, both disorders struck at typical Western rates, showing that it's not their genes that were protecting them. Kuna who remained on the islands drank up to four cups a day of a home brew of flavanol-rich dried and ground cocoa beans daily, the National Institutes of Health reports.

- **Healthier levels of cholesterol and other markers of heart health.**

Products rich in cacao flavanols (such as dark chocolate or cocoa) may reduce inflammation, triglycerides and insulin resistance (the root cause of almost all cases of type 2 diabetes, as well as 70% of heart attacks), according to an analysis of clinical trials that included more than 1,100 people. The researchers also linked eating these foods to healthier levels of HDL (good) and LDL (bad) cholesterol, and several other studies have similar findings.



## NT-ProBNP: The “Happy Heart” Test to Predict Heart Attack and Stroke Risk

Is your heart happy? While that's a question you've probably pondered on an emotional level, and felt reassured about your psychological well-being if the answer was positive, most people don't know that it's also important to find out how if their heart is happy from the physical standpoint. That's right, there is a simple, FDA-approved blood test that can literally quantify how happy your heart is!



Not only can the “happy heart test,” medically known as NT-ProBNP, accurately predict risk for heart attack and stroke in people who seem otherwise healthy, but it can reveal which ones may be headed for heart failure, atrial fibrillation or other cardiovascular disorders, according to a new study published in *Circulation*. Here's closer look at the study findings--and why the BaleDoneen Method recommends this test as an important part of your heart-attack-and-stroke-prevention plan.

### What does the NT-ProBNP test measure?

The NT-ProBNP test measures the amount of a neurohormone called B-type natriuretic peptide (BNP) in a sample of the patient's blood. If the heart is under stress or struggling to function properly, it releases higher amounts of BNP. Basically a SOS message that the heart is in distress, natriuretic peptides cause the body to excrete more fluid, reducing the amount that the heart has to pump with each beat. These peptides also widen blood vessels, lowering the force required to circulate blood. Both of these effects reduce a struggling heart's workload.

### What did the study show?

The researchers analyzed health data from nearly 9,000 men and women of diverse ethnicities who were initially free of cardiovascular disease (CVD), the leading killer of American men and women. At the start of the study, all participants had five blood and imaging tests: a 12-lead electrocardiogram, a coronary calcium scan, and blood tests to measure levels of high-sensitivity C-reactive protein (hs-CRP), troponin T and NT-ProBNP.

During a decade of follow-up, participants' initial test results were compared with their rates of a variety of CV problems, including fatal or non-fatal heart attacks and strokes, heart failure (HF), atrial fibrillation (a dangerous heart rhythm irregularity that raises risk for stroke, dementia, HF, and premature death, if untreated), medical procedures to reopen obstructed heart or peripheral (leg) arteries, and death from CV causes, with the following findings:

Compared to people who scored normally on all five tests, those with one abnormal result were nearly twice as likely to suffer CV problems.

Two abnormal test results tripled risk for heart problems, three abnormal results quadrupled it, and four or more abnormal results raised it 7.5 fold.

Each test studied, except hs-CRP (a measure of inflammation), independently predict multiple aspects of CV risk, even after such risk factors as smoking, high blood pressure, obesity, diabetes, and high cholesterol, and the person's age, gender and ethnicity were taken into account.

### How do these tests improve on traditional ways of checking for heart risk?

Including the results from these five tests dramatically improve CV risk prediction. In the study, nearly half of the participants were reclassified as being at higher or lower risk than predictions based on solely on traditional risk calculators, such as the well-known Framingham Risk Score, which has been shown to be highly unreliable in a number of previous studies. The researchers also report that there is solid scientific evidence that risk for ALL of the heart problems studied can be greatly reduced with appropriate preventive care. What are the key BaleDoneen takeaways from this study?

The study substantiates the BaleDoneen Method approach to heart attack and stroke prevention in several ways. It found that NT-ProBNP levels of 100 pg/mL or higher are independent predictors of risk for multiple CVD events. This blood test is routinely used by the BaleDoneen method to check for CV risk, along other lab and imaging tests to directly check each patient for signs of CVD, a disease that often develops silently over decades until it becomes severe enough to trigger a heart attack or stroke, if it goes untreated.

Other research suggests that if your level of NT-ProBNP is below 125 pg/mL there is a 98% probability that your heart is very happy! How worried should you be if your level is higher than that? In that case, there is 33% probability that your heart is not totally happy and is experiencing some degree of dysfunction. Discuss your test results and next steps with your healthcare provider.

**Bottom line:** the BaleDoneen Method includes all of these tests used in the study, plus leading-edge genetic testing to improve risk assessment and guide personalized care, including a diet based on your DNA. We congratulate Dr. de Lemons and his team for publishing this excellent study, which will enhance CV risk prediction, allowing more people to receive preventive care. Their research will help hasten our mission to remove CVD from the top of the list of leading causes of death and disability. Early detection and optimal preventive care are the keys to saving lives and hearts! and his team for publishing this excellent study, which will enhance CV risk prediction, allowing more people to receive preventive care. Their research will help hasten our mission to remove CVD from the top of the list of leading causes of death and disability. Early detection and optimal preventive care are the keys to saving lives and hearts!

## Gourmet Dark Chocolate-Coffee Fondue with Fresh Fruit

Did you know that dark chocolate contains more disease-fighting antioxidants than many high-antioxidant fruits, including blueberries and acai berries? Here's a quick, easy and delicious way to enjoy heart-healthy dark chocolate, in a dessert that's sure to delight chocolate and coffee lovers.



When shopping for ingredients, choose dark chocolate that contains at least 70% cacao. That means it's rich in antioxidant flavonoids, which offer a variety of cardiovascular benefits, including reducing the stickiness of blood platelets, so they are less likely to clump into clots that could lead to a heart attack or a stroke. For vegans, use non-dairy creamer or almond milk instead of light cream.

### Recipe

#### Ingredients

8 ounces dark chocolate, chopped or broken  
1/2 cup of black coffee, strong  
4 tablespoons of light cream, non-dairy creamer or almond milk, warmed  
4 tablespoons vanilla extract  
1/2 teaspoon cinnamon  
1/2 teaspoon nutmeg

Warm dark chocolate and coffee in a small pot with coffee over low heat, stirring until melted and smooth. Gradually add warm cream, non-dairy creamer or almond milk, and spices, stirring until well-mixed. Transfer mixture to your fondue set and serve with any of these dippers:

Strawberries  
Apple wedges  
Sliced bananas  
Orange sections  
Pineapple chunks  
Peach or pear wedges

Adapted from Bestfondue.com.