# Heart CALK

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

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# HEART ATTACKS AND STROKES ARE PREVENTABLE

Every 43 seconds someone in the U.S. has a heart attack, and every four minutes an American dies from a stroke. Very often, people who suffer these events were previously unaware they had CVD, the leading killer of men and women. The BaleDoneen Method offers a unique, precision-medicine approach to detecting, preventing and treating CVD that has been shown in two recent peer-reviewed studies to halt or reverse the disease — and rapidly shrink arterial plaque by more than 50%.

How do we achieve these results? Unlike standard care, which is based on checking patients for certain risk factors, the Bale-Doneen Method also uses advanced laboratory and imaging tests to directly check all patients for hidden signs of arterial disease,

which often develops silently over many years until it gets severe enough to trigger a heart attack or stroke if untreated.

# A 6-STEP PLAN THAT CAN SAVE LIVES, HEARTS AND BRAINS

Our precision-medicine approach to heart attack and stroke prevention has six components:

## **EDUCATION.**

Knowledge is power! Our patients learn how heart attacks and strokes actually happen. A common misconception is that arterial disease is a plumbing problem, like grease clogging a kitchen sink, causing an artery to become so obstructed that flow of blood stops, resulting a heart attack or stroke. However, studies show that these events occur when plaque inside the artery

becomes inflamed and ruptures explosively, leading to the formation of a clot that blocks the flow of blood to the heart or brain. Most heart attacks occur in arteries that are minimally blocked by plaque, with the clot creating the rest of the obstruction.

**DISEASE.** Early detection and treatment of arterial plaque is a key element of our evidence-based approach to prevention. We use advanced laboratory and imaging tests to directly check each patient for hidden signs of CVD, including a painless 15-minute ultrasound exam called carotid intima-media thickness (cIMT). A recent study of more than 10,000 people found that adding cIMT and the presence of plaque to traditional risk factors dramatically boosted the accuracy of 10-year predictions of heart

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# **Heart Attack & Stroke Prevention Center**

507 S. Washington, Suite 170 Spokane, Washington 99204

(509) 747-8000

www.TheHASPC.com





# 4 THINGS TO KNOW ABOUT THE NEW CHOLESTEROL GUIDELINES



bout one in three American adults have elevated levels of LDL (bad) cholesterol, a major risk factor for developing atherosclerosis (plaque buildup in the arteries). The American Heart Association (AHA) and American College of Cardiology (ACC) have issued new cholesterol management guidelines for healthcare providers, aimed at helping patients lower their risk for heart attack, stroke and death from cardiovascular (CV) causes.

The new guidelines have several important changes from earlier ones issued in 2013, including new recommendations about evaluating patients' CV risk and new treatment options for those at increased risk. Here's a closer look at what's new in the guidelines, four key takeaways from the BaleDoneen Method, and how to work with your healthcare provider to optimize your arterial wellness and cholesterol levels.

# 1. A heart-healthy lifestyle is the first — and best — line of defense against heart disease.

The new guidelines place a strong emphasis on "lifestyle therapies" to protect and improve heart health, such as losing weight, smoking cessation, and eating a Mediterranean diet that that emphasizes fruits, vegetables, fish and other lean protein, healthy oils (such as olive oil) and nuts. The guidelines also advise aerobic exercise, such as brisk walking, jogging, biking, dancing or jogging, at least three to four times a week, for an average of 40 minutes per session. Lifestyle improvement is particularly advised if you have metabolic syndrome, a gang of five cardiovascular villains that triples risk for heart attack and stroke and quintuples it for type 2 diabetes.

**BaleDoneen takeaway:** Lifestyle changes, such as moving more, avoiding all forms of nicotine exposure and kicking the sugar habits, offer remarkably powerful protection against a heart attack or stroke, cutting risk by up to 90%. However, studies of the best dietary approach to reduce heart attack and stroke risk reveal striking individual differences in response. That is why we recommend a diet based on your DNA.

# 2. Talk to your healthcare provider about your risk for heart attacks and strokes.

Americans have long been told to "know your numbers." However, LDL cholesterol numbers are not a reliable predictor of CV risk. For example, a 2009 study of 136,095 people hospitalized for a heart attack reported that nearly 75% had "normal" levels of LDL and nearly half had "optimal" levels, based on the guidelines in effect at that time. For patients who have not yet had a heart attack or stroke, the new guidelines urge healthcare providers to evaluate patients' CV risk in two ways. First, a population-based risk calculator introduced in 2013 is used to predict the person's

10-year CV risk. The prediction is personalized by weighing a wide range of factors, including the patient's age, ethnicity, family history, other medical conditions and results of certain blood tests, along with traditional risk factors as smoking, diabetes and high blood pressure.

**BaleDoneen takeaway:** We strongly support a personalized, precision-medicine approach to heart attack and stroke prevention, rather than treating patients based on the average results of large clinical trials. We are also happy that the guidelines discuss testing to check for inflammation, which has now been proven to cause atherosclerosis — and, in people who have it, is also the trigger of heart attacks and most strokes. The new guidelines also discuss lipoprotein (a), a dangerous type of cholesterol that most American doctors do not check, despite the availability of <u>a \$20</u> test to measure it.

# 3. Ask to have your arteries checked for plaque.

The biggest improvement in the guidelines is that for first time, medical providers are encouraged to use an imaging test called coronary artery calcium score (CACs) to check certain seemingly healthy patients for arterial disease. The guidelines also advise that anyone with a score greater than zero on this test, which looks for calcified plaque, be treated with statins. All previous guidelines from the AHA and ACA advised basing treatment decisions solely on the patient's risk factors, such as cholesterol levels

**BaleDoneen takeaway:** Unlike standard care, which considers patients "innocent" of heart disease unless they have certain risk factors, the BaleDoneen Method considers all patients to be "guilty" of harboring silent, potentially lethal plaque unless they are proven innocent through imaging and laboratory testing that directly checks for arterial disease. As discussed above,



# One-pot Vegan Lentil Kale Soup with Carrots

Adapted from Miminalistbaker.com and healthy-liv.com.

Ready in 30 minutes, this easy recipe is low in calories and rich in heart-healthy fiber and nutrients. Vegan and gluten-free, this hearty soup is perfect for an inexpensive but tasty lunch or dinner. Research suggests that a plant-based diet helps lower risk for cardiovascular disease, with a recent study reporting that people who ate at least one serving of carrots or squash daily were 60% less likely to have heart problems. Kale is such a nutritional powerhouse that it's been called "the queen of vegetables" due to its anti-inflammatory and antioxidant benefits. This recipe can be served on its own or with your favorite side salad. For extra flavor, serve with a lemon wedge or additional fresh herb sprigs of your choice.

# **INGREDIENTS**

- 1 tablespoon olive or avocado oil
- 2 garlic cloves, minced
- 1 medium white or yellow onion, diced
- 3 large carrots, peeled and thinly sliced
- 3 stalks of celery, thinly sliced
- ½ pound of yellow potatoes (2 or 3 small potatoes), diced into bite-sized cubes
- 28-ounce can diced tomatoes, undrained
- 4 cups of low-sodium or salt-free vegetable broth
- 2 cups water
- 1 teaspoon freshly ground pepper
- 3 sprigs of thyme or fresh rosemary
- 1 cup of green or brown lentils, rinsed and drained
- 2 cups of kale, chopped
- Parsley sprigs for garnish

# **PREPARATION**

Heat oil in a large pot over medium heat. Sauté garlic and onion until lightly browned (about 6 minutes). Add carrots, celery, potatoes, tomatoes, vegetable broth, water, pepper and thyme or rosemary sprigs. Turn up heat to high and bring to a boil, then reduce heat to medium-low. Simmer uncovered for 20 minutes or until potatoes and lentils are tender. Add kale, stir and cook for 3 to 4 additional minutes or until kale is wilted. If soup is too thick, add more water or vegetable broth. Garnish with parsley and enjoy! Serves six.

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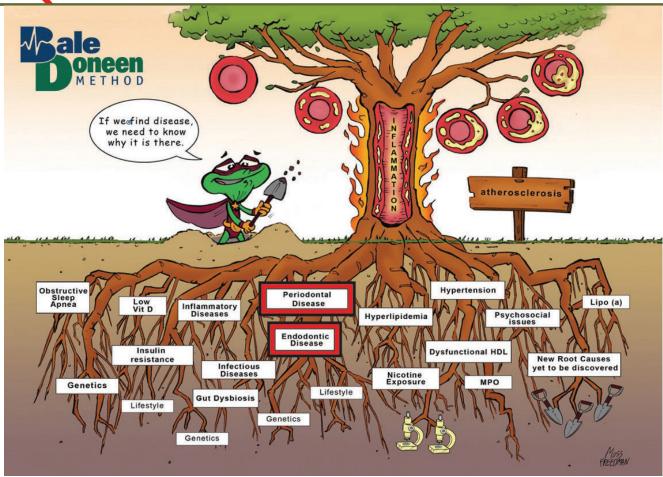
many people who have heart attacks and strokes lack traditional risk factors, while other people with many risk factors never suffer these events. Therefore, rather than trying to guess who is at risk based on cholesterol or other numbers, we check every patient for plaque, regardless of risk factors. CACs is an excellent imaging test, but can only detect calcified plaque, a relatively late sign of arterial disease. A 15-minute ultrasound exam of the neck arteries, called intima-media carotid thickness, can also detect soft plaque (the most dangerous kind).

4. If you have arterial plaque or are at elevated risk for developing it, talk to your medical provider about the latest treatment options.

Until recently, the main treatments for cholesterol management were lifestyle modification and statin drugs. If these treatments are not effective enough, the new guidelines also recommend use of non-statin drugs, such as ezetimibe and PCSK9 inhibitors, for certain patients. Currently, there are two FDA-approved PCSK9 inhibitors: <u>alirocumab (Praluent)</u> and evolocumab (Repatha). Recent studies suggest that these drugs can help prevent heart attacks and strokes, but they are much more expensive than other cholesterol drugs.

**BaleDoneen takeaway:** Statin drugs don't just lower cholesterol, they also reduce inflammation and make plaque less likely to rupture, helping to reduce risk for heart attacks and strokes. Because PCSK9 inhibitors are new, it's not yet known if they have additive value in reducing inflammation. We recommend that statin therapy be personalized based on the patient's genes and gender. It's also important to realize that statin therapy is not effective for people with elevated lipoprotein (a), an inherited condition found in about 20% of the US population. If you have elevated levels of this cholesterol, taking niacin (vitamin B3) under medical supervision can reduce levels by up to 40%, according to the European Atherosclerosis Society.





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attack and stroke risk.

## FIRE IN THE ARTERIES.

Chronic systemic inflammation, which we call "fire," has been shown to be both a cause and an important treatment target for heart attack and stroke prevention. We use a "fire panel" of inexpensive blood and urine tests to check inflammatory markers. In 2017, results of the CANTOS trial published in the New England Journal of Medicine reported that anti-inflammatory therapies reduce risk for heart attack, stroke, other cardiovascular events and cancer by up to 50%. We also recommend natural ways to "fireproof" your arteries.

#### **ROOT CAUSES**

To put out fire inside the arteries, it's essential to find out what's causing it. For someone like Mike Ditka, who has now survived two heart attacks and a stroke, identifying the root cause is essential to prevent yet another recurrence. Our method checks for a wide range of root

causes, including insulin resistance (the hidden cause of about 70% of heart attacks), metabolic syndrome, high blood pressure (the leading risk factor for stroke), sleep disorders and a dangerous cholesterol most doctors don't check, even though it has been proven to actually cause heart attacks! One of our recent studies has been described as "landmark," because it was the first to identify oral bacteria from gum disease as a contributing cause of CVD.

# **OPTIMAL GOALS.**

Just as a top-quality construction company may exceed the building code to make homes and offices even stronger and safer from fires, earthquakes and other catastrophes, in some cases, the BaleDoneen Method sets higher standards for treatment and prevention than those set by standard medical care. Work with your healthcare provider to set optimal, individualized goals to modify each of your risk factors. This approach, rather than one-size-fits-all goals set by the

standard of care and based on average results from large studies, leads to superior outcomes and more effective heart attack and stroke prevention.

#### **GENETICS**

Basing care on each person's unique genetic makeup is the ultimate in precision medicine. The BaleDoneen Method has used genetic testing for more than a decade both to identify patients with inherited risk for heart attacks and strokes and to guide the best personalized treatments of those risks, including a diet based on your DNA. In a 2018 study, we have also identified an easy, inexpensive way to lower heart attack risk for people who have type 2 diabetes, based on a onetime genetic test. Another recent study revealed that if people at genetic risk for CVD stay physically fit, their risk drops by about 50%, highlighting the amazing power of an optimal lifestyle to keep your heart healthy, no matter what is written in your DNA.



