

Heart TALK

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

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*Thoughts from
Dr. Amy*

The Amazing Heart Health Benefits of Cutting

300 CALORIES A DAY

A simple lifestyle change can help you flatten your belly, improve your heart health and might even add years to your life, a new study suggests. The researchers found that people who cut 300 calories a day from their diet — the equivalent of two chocolate chip cookies or a slice of pizza — not only lost an average of 16 pounds over a two-year period but also had significant improvements in their cholesterol, blood pressure, blood sugar and other markers of heart and metabolic health.

What's more, study participants who practiced calorie restriction also lowered their levels of an inflammatory marker that has been linked to increased risk for cardiovascular disease (CVD), cognitive decline and cancer. How can skipping a snack or two a day do all that? Here is a closer look at the study and key BaleDoneen Method takeaways on protecting your arterial wellness.

How was the study conducted?

Published in the peer-reviewed journal [The Lancet Diabetes and Endocrinology](#), the CAL-ERIE (calorie restriction and cardiometabolic risk) study included 218 healthy adults ages 21 to 50 who were randomly divided into two groups. One group of 143 people was instructed to practice calorie restriction for two years, while the other group of 75 participants ate their usual diet.

For the first month, the calorie-restriction group had their meals prepared at one of the U.S. clinical centers conducting the study to show them what calorie reduction looks like. They also received training on how to cook low-

cal meals, attended group counseling sessions for six months and had regular check-ins with nutritionists. However, participants could eat the foods they wanted, as long as they cut back on the total amount, with the goal of slashing calories by 25%. Both groups received tests at the start and end of the study to assess their cardiovascular and metabolic health.

Funded by National Institutes of Health, the study is the first randomized clinical trial to evaluate the effects of calorie restriction on young and middle-aged adults who were either of normal weight or a little overweight. The goal was to determine if calorie restriction, which has previously been shown to increase longevity in animals, could influence healthy aging and risk for cardiometabolic diseases.

What were the key findings of the study?

Reducing calories by 25% is challenging! Relatively few participants were able to achieve that goal for the full two years. On average, participants in the calorie-cutting group slashed their intake by 11.9%, or 297 calories.

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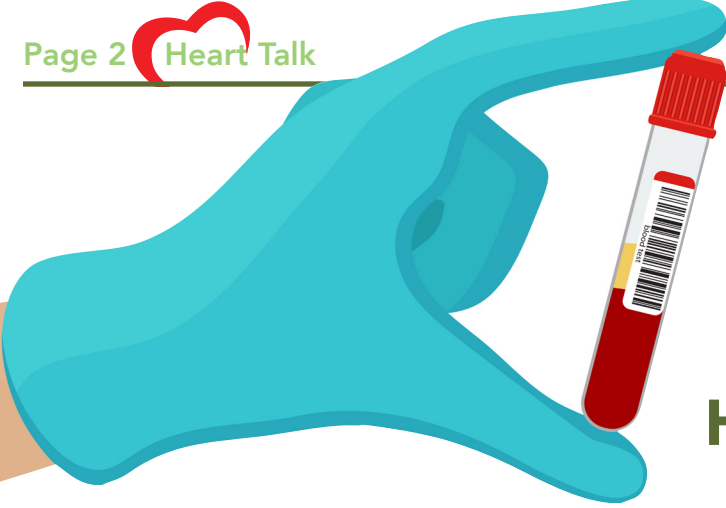


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ARE YOU GETTING THE BEST CHOLESTEROL TEST TO PREDICT HEART ATTACK RISK?

For decades, low-density lipoprotein cholesterol (LDL-C) — the notorious “bad” cholesterol — has been vilified as public enemy number one by the medical profession. Yet none of the hundreds of cholesterol studies performed to date has ever shown that LDL-C causes heart attacks. This unscientific belief has become so ingrained in medical thinking that it’s been termed “the great cholesterol hoax.” Indeed, a large body of research suggests that your level of LDL-C is the worst lipoprotein predictor of your heart attack risk.

Instead, the most predictive measurement is apolipoprotein B-100 (ApoB), which can be checked with a \$20 blood test available through almost all medical labs. Widespread use of this test — and the potentially lifesaving information it can provide — could prevent 500,000 heart attacks and strokes over the next 10 years, according to a recent paper published in *Journal of the American College of Cardiology*. Here’s the scoop on this test, why the BaleDoneen Method recommends it, and what everybody should know about cholesterol testing.

What does the ApoB test measure?

Cholesterol, a waxy substance produced by the liver, is ferried through the bloodstream by molecular “submarines” known as lipoproteins. ApoB is a major component of the four lipoprotein particles that are most harmful to the arteries when found at elevated levels: LDL, intermediate density lipoprotein (IDL), very low density lipoprotein (VLDL), and lipoprotein (a), or Lp(a).

Since each of these particles contains one ApoB molecule, measurements of ApoB reveal the total burden of dangerous lipoprotein particles circulating in your blood. It is similar to counting the number of submarines in an enemy

attack force to assess how great a threat they pose. Each of these particles, including LDL particles (LDL-P) can contribute to the development of atherosclerosis (plaque in the arteries that could lead to a heart attack or stroke).

How does the ApoB test differ from the standard cholesterol test?

Based on current guidelines, most medical providers use a cholesterol test that certainly sounds comprehensive. Known as a “lipid profile” or “coronary risk panel,” it checks your levels of total cholesterol, LDL-C, high-density lipoprotein (HDL) — also called “good” cholesterol — and blood fats called triglycerides. The American Heart Association recommends that cholesterol testing start at age 20.

A little-known drawback of the standard test is that it doesn’t directly measure LDL-C. Instead, it tallies total cholesterol, HDL and triglycerides (TG), then uses a mathematical formula to calculate LDL-C, a measurement of the total concentration of cholesterol within the LDL, IDL and Lp(a) particles in the blood sample. However, this formula can be unreliable, particularly if your TG is high, sometimes creating a false sense of security.

Moreover, unlike the ApoB test, the standard test does not measure the number of lipoprotein submarines, such as LDL-P. Instead the test only tells you how much cholesterol cargo the fleet is carrying. Why is this difference important? In a recent study called JUPITER, there was no correlation between the 11,186 participants’ initial levels of LDL-C and their subsequent rate of heart attacks, strokes and other cardiovascular (CV) events over the next two to five years, while their baseline levels of LDL-P, ApoB, TG and non-HDL cholesterol all predicted future CV risk.

What is the best lipoprotein measurement to predict your risk for atherosclerosis?

Evidence from multiple peer-reviewed studies shows that the most predictive measurement is the ApoB gang of four lipoprotein villains, plus your triglyceride level. Although TG does not cause arterial disease (because these blood fats don’t penetrate the arterial wall and form plaque), for people who already have atherosclerosis, elevated triglycerides nearly triple heart attack risk, according to a Harvard-led study.

This finding dovetails with another study showing that VLDL and IDL both trigger arterial inflammation and more than triple heart attack risk. Since VLDL and IDL are the cholesterol content of the lipoprotein submarines that transport TG in the bloodstream, the study suggests that it’s not TG itself, but rather these two cholesterol thugs, that drive the increased heart attack risk.

We call another member of the ApoB gang, [lipoprotein \(a\)](#), “the mass murderer” because elevated levels of this cholesterol nearly triple risk for heart attacks, according to three studies that included nearly 45,000 people. Having high levels of Lp(a) — an inherited condition that affects about 20% of the population — also raises risk for heart attacks and strokes at a young age.

What about LDL? Of the four cholesterol thugs that comprise ApoB, LDL is arguably the wimp. While patients — and even many doctors — think high LDL is the leading risk factor for heart attacks, a recent study found that 75% of nearly 137,000 men and women hospitalized for heart attacks had “normal” levels of LDL and nearly half had “optimal” levels. As a result, most doctors would not have considered these pa-

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August Recipe

Ready in just minutes, this easy, gluten-free, vegan recipe abounds in heart-healthy nutrients. Often called “the queen of vegetables,” kale is low in calories but packed with vitamins and disease-fighting antioxidants. Research suggests that eating it regularly may help lower cholesterol and blood pressure. Beans are also nutrient dense and help the body maintain healthy blood sugar levels while reducing inflammation. Avocados have been called “nature’s most perfect food,” due to their wide array of health benefits, including reduced heart attack and diabetes risk. Combining these ingredients creates a delicious recipe that is sure to become a family favorite!



Kale, Black Bean and Avocado Burrito Bowl

PREPARATION

In a large bowl, whisk together 4 tablespoons of lime juice, 2 tablespoons of olive oil, cumin and half of the jalapeño. Add kale and toss to combine. In a separate bowl, mash avocado with the remaining half of the jalapeño, two tablespoons of lime juice and cilantro or parsley leaves. In saucepan, over medium low heat, sauté shallot and garlic until fragrant, then add beans, cayenne pepper and chili powder. Cook until beans are warm, stirring frequently (about 5 to 7 minutes). If beans become dry, add a little water. To serve, layer four individual serving bowls with marinated kale, beans and avocado mixture. Garnish with cherry tomatoes and enjoy! Serves four.

Adapted from Cookieandkate.com and Bigoven.com.

INGREDIENTS

- 1 bunch of curly kale, ribs removed and chopped into bite-sized pieces
- 6 tablespoons of lime juice, divided
- 3 tablespoons extra-virgin olive oil, divided
- ½ teaspoon ground cumin
- 1 jalapeño, minced, with seeds removed, divided
- 2 14-ounce cans of black beans, rinsed and drained
- 1 ripe avocado, diced
- ½ cup fresh cilantro or parsley, finely chopped
- 1 shallot, finely chopped
- 3 garlic cloves, pressed or minced
- ¼ teaspoon cayenne pepper
- ¼ teaspoon chili powder
- Cherry tomatoes sliced into thin rounds (for garnish)



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tients candidates for therapies that might have prevented their heart attacks — a horrifying example of how the LDL-C hoax puts lives at risk by focusing on the least predictive cholesterol measurement.

Should you get the ApoB test instead of the standard cholesterol test?

The BaleDoneen Method recommends that you get the standard and the ApoB test, because both provide valuable information about your heart health. Along with measuring your TG level, the stan-

dard test also provides a cholesterol number that ranks as one of the top predictors of heart attack risk: your total-cholesterol-to-HDL ratio (TC/HDL).

If this number doesn’t appear on your cholesterol results, doing the math yourself is simple. For example, if your total cholesterol is 180 mg/dL and your HDL is 60 mg/dL, you’d divide 180 by 60 to get your TC/HDL ratio of three (good). Based on scientific evidence from multiple studies, we consider a ratio of 3.5 to be a desirable target and a number below three to be optimal.

The BaleDoneen Method also recommends having your levels of Lp(a) checked. This blood test, which costs about \$20, can be performed at the same time as the conventional cholesterol and the ApoB test. Because the Lp(a) test checks for an inherited condition, if your level is normal, there is no need to be tested again since your genes don’t change. To learn more about Lp(a) testing, check out our blog post, “[Most Doctors Don’t Know About this \\$20 Test for Hidden Heart Attack Risk.](#)”

WHAT DOES 300 CALORIES LOOK LIKE?

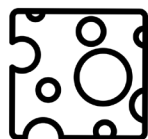
Foods that contain about 300 calories include the following:



One large bagel or six Oreo cookies



One small bag of potato chips



3 slices of Swiss cheese



4 ounces of steak or 6 strips of bacon



A medium avocado



24 ounces of Coke, Mountain Dew or other soft drinks



Three tablespoons of peanut butter



A small Starbucks Mocha Frappuccino

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Overall, they cut down from consuming an average of 2,467 calories a day at the start of the study to 2,170 calories at its conclusion.

Even this modest reduction in caloric intake had a surprisingly powerful effect, including the following outcomes in the calorie-cutting group, compared to people in the control group:

- A 24% reduction in triglycerides, a type of blood fat. People with high triglycerides have triple the heart attack risk of those with normal levels.
- Decreases in blood pressure, cholesterol, blood sugar and risk for developing [metabolic syndrome](#) (a cluster of heart attack, stroke and diabetes risk factors).
- Reductions in inflammation, the fire in the arteries that can ignite heart attacks and strokes in people with arterial plaque.
- Decreased insulin resistance, [the root cause of 70% of heart attacks](#) and almost all cases of type 2 diabetes.
- Improved mood, sleep and energy levels.

Is weight loss the reason why calorie restriction improves heart health?

Although people in the calorie-cutting group lost an average of 16.5 pounds (most of which was body fat), the study's lead author, Dr. William E. Kraus, a cardiologist and professor at Duke

University School of Medicine, [told The New York Times](#) that the improvements in metabolic and cardiovascular health were much greater than would be expected from weight loss alone.

"We weren't surprised that there were changes," he said. "But the magnitude was rather astounding. In a disease population, there aren't five drugs in combination that would cause this aggregate of an improvement."

In an accompanying commentary, Dr. Frank Hu, chair of the department of nutrition at the Harvard T.H. Chan School of Public Health, suggests that combining calorie restriction with other healthy eating strategies could help people achieve a lean body over the long term, which he describes as "the optimal way to promote longevity."

What are the best ways to eliminate 300 calories a day and improve arterial health?

The BaleDoneen Method advises eating [a diet based on your DNA](#). To cut down on calories, start by keeping a food diary. In a recent study of nearly 1,700 people, those who wrote down what they ate lost twice as much weight as those who didn't keep a food diary. The simple act of recording what you consume motivates you to cut down on calories and hold yourself accountable.

We call it a "BLT journal" — write down every bite, lick and taste. Many people are surprised at how many

calories they consume, even while preparing meals. There are several free apps that make it easy to keep a food diary, even when you are on the go, and some even provide calorie counts for many brands of food and even menu items at popular restaurants.

Watch out for liquid calories. Many beverages — including soft drinks, coffees, alcoholic beverages, energy drinks and smoothies — are calorie dense and high in concentrated carb/sugar content. As we [reported recently](#), consuming even one or two sugar-sweetened drinks daily boosts risk for a heart attack or dying from CVD by 35%, diabetes risk by 26% and stroke risk by 16%. Instead, quench your thirst with our [refreshing fruit and herb-infused water recipes](#). A large study recently found that people who drink five or more glasses of water daily have half the risk of developing fatal CVD as those who drink two or fewer glasses daily.

In the calorie-restriction study, most participants cut calories by eating less meat and more fresh fruits and vegetables, which are nutrient dense and filling but relatively low in calories. A diet high in produce has been linked to a significantly lower risk for CVD and some forms of cancer, and has even been linked in some studies to a longer life. Fill at least half your plate with fresh fruits and vegetables at each meal and your heart — as well as your arteries and waistline — will rejoice!