Heart TALK

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

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Thoughts from Dr. Amy

The Facts About Eggs and Heart Health — Unscrambled

Are eggs a superfood or a dietary villain to avoid? You've probably seen frightening headlines like these: "Alert! An egg a day increases risk of stroke death," "A New Study Wants You to Stop Eating Eggs," "Study: Cholesterol from egg consumption increases risk of heart attack," and "Eggs are bad for your heart — it's no yolk."

However, the 2015 to 2020 Dietary Guidelines for Americans recommend eggs as an inexpensive, low-calorie source of protein and essential nutrients — and some studies have reported that eating an egg a day lowers heart-disease risk. These conflicting findings have caused confusion and concern. Here is a closer look at the new study and other research on the effects of eggs on arterial and heart health, with key takeaways from the BaleDoneen Method.

WHAT DID THE NEW STUDY REPORT ABOUT EGGS?

Published in Journal of the American Medical Association (JAMA), the study pooled findings from six studies that included 29,615 people of diverse ethnicities who were tracked for about 17 years. Data was collected about participants' self-reported diets and rates of cardiovascular events, including fatal and non-fatal heart disease, stroke, heart failure and deaths from other cardiovascular (CV) causes, with the following findings:

For each additional half egg eaten daily, risk for CV events rose by 6%.

For each additional 300 mg. of dietary cholesterol consumed daily, risk for CV events rose by 17% and risk of death from any cause rose by 18%.

The study concluded that for U.S. adults, higher intake of eggs or dietary cholesterol was significantly associated with increased risk for both CV events and all-cause mortality.

The more dietary cholesterol people consumed, the greater their CV risk. For those who ate two eggs a day, risk for developing heart disease increased by 27%.

HOW MUCH CHOLESTEROL DO EGGS CONTAIN — AND HOW NUTRITIOUS ARE THEY?

On average, one large egg has 186 mg. of dietary cholesterol, all of which is found in the yolk. That's more than half the amount that was formerly recommended for daily consumption (300 mg.) before government guidelines dropped the numerical goal in 2015, based on a lack of scientific evidence for any specific limit. Other cholesterol-rich foods include cheese, steak, hamburgers, liver and other organ meats, lobster, shrimp, processed meats and full-fat yogurt.

An egg contains 75 calories, 7 grams of protein and 5 grams of fat, along with vitamin D, vitamin A, vitamin B-12, iron, potassium and many other important nutrients. Additionally, the yolks are a good source of lutein and zeaxanthin, which support eye health, lowering risk for cataracts and macular degeneration, the leading cause of blindness in older adults.

HOW ACCURATE ARE THE STUDY FINDINGS?

One major flaw in the study design is that the participants were only asked about their diet once, so their eating habits could have changed dramatically over the nearly two decades they were followed. Also, this was an observational study, so it cannot prove any cause-and-effect relationship between eating eggs or other foods high in dietary cholesterol and risk for CV events.

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Breaking ground with the Bale/Doneen Method

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Bale Doneen METHOD™

New Guidelines on Aspirin for Heart Attack and Stroke Prevention: What Should You Do?

For decades, aspirin has been hailed as a panacea to prevent heart attacks and strokes, as well as some forms of cancer. Until recently, guidelines from leading medical groups, including the American Heart Association (AHA) and the American College of Cardiology (ACC), advised certain patients to take daily low-dose aspirin to avoid cardiovascular (CV) events — and about 40% of Americans over age 50 followed that advice.

In March, millions of Americans who take a baby aspirin a day to keep heart attacks and strokes away were alarmed by a flurry of headlines like these: "Experts now say daily aspirin could do more harm than good," "Don't take daily aspirin to prevent heart attacks and strokes," and "New Guidelines Advise Against Aspirin to Prevent Heart Attack, Stroke." One media outlet advised "older patients" to "toss your baby aspirin," without cautioning that patients should never quit any medically prescribed therapy without consulting their health provider. Here is a look at the new guidelines and key takeaways from the BaleDoneen Method for the prevention of heart attack, stroke and diabetes.

WHAT ARE THE CARDIOVASCULAR RISKS AND BENEFITS OF ASPIRIN?

Also known as acetylsalicylic acid (ASA), aspirin has proven anti-clotting effects, thus helping to prevent heart attacks and ischemic strokes, which occur when a clot blocks flow of blood to the heart or brain. However, ASA can also be dangerous due to a significant risk for internal bleeding.

More than 200 studies have shown that low-dose aspirin (75 to 100 mg. daily) significantly reduces risk for repeat heart attacks and strokes in patients who have already suffered one or more of these eves, with this potentially lifesaving benefit clearly outweighing the low, but serious, risk for bleeding linked to this drug. The efficacy of ASA for these patients remains undisputed, and guidelines recommending it for "secondary prevention" have not changed.

Aspirin use by patients who have not yet had a heart attack or stroke (defined as "primary prevention" by the standard of care) has long been controversial. As we recently reported, more than 30 years of randomized controlled trials (RCTs) — the gold standard of scientific research — have yielded conflicting findings about the risks, benefits and effectiveness of aspirin for these patients, leading to inconsistent guidelines from medical societies and government agencies in the U.S. and Europe, recommending for and against aspirin for "primary prevention."

WHAT'S DIFFERENT ABOUT THE NEW GUIDELINES FOR ASPIRIN USE?

Issued by the AHA and ACC in March, the guidelines contain several new recommendations for healthcare providers for "primary prevention" of cardiovascular disease (CVD), the leading killer of Americans. For these patients, the primary prevention guidelines advise the following:

- Low-dose aspirin (75-100 mg. daily) might be considered for select adults ages 40 to 70 who are at increased risk for CVD, but not at increased risk for bleeding.
- Low-dose ASA should not be prescribed routinely for adults under age 70.
- Low-dose ASA should not be prescribed for patients of any age who are at increased risk for bleeding.

HOW TRUSTWORTHY ARE THESE GUIDELINES?

To decide which treatment would be most beneficial for people ages 40 to 75 who are being evaluated for CVD prevention, the guidelines recommend that clinicians to use a 10-year risk assessment estimation (such as the well-known Framingham Risk Score, or FRS) before prescribing medications, such as aspirin, cholesterol-lowering statins, or drugs for high blood pressure.

This is where the BaleDoneen Method differs from the standard of care. Because FRS and other risk estimation tools have been shown in many studies to be unreliable, patients at high risk for heart attacks and strokes can be missed because they don't have the specific risk factors that these tools analyze. For example, a national study of more than 136,000 people hospitalized for heart attacks found that 75% had "normal" cholesterol levels and about half had "optimal" levels of LDL (bad) cholesterol.

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Easy Vegan Marinara Spaghetti Squash

April Recipe

Like other squashes, spaghetti squash is low in calories and high in heart-healthy fiber. It is also low in carbs, making it a delicious, gluten-free substitute for pasta. Spaghetti squash is a good source of inflammation-fighting omega-3 fatty acids, vitamins A and C, and disease-fighting antioxidants. Packed with vitamins and minerals, nutritional yeast adds a creamy flavor, making it an excellent dairy-free substitute for cheese. This easy, heart-healthy recipe is sure to become a family favorite!

INGREDIENTS

2 whole spaghetti squash, halved lengthwise
¼ cup olive oil
4 cups prepared (jarred) marinara sauce
Freshly ground black pepper to taste
2 cloves garlic, grated
16-ounce can of chickpeas, drained
2 tablespoons nutritional yeast flakes
Fresh basil or parsley, chopped for garnish

PREPARATION

Preheat oven to 450 degrees F. Scrape out squash seeds. Brush each squash half with olive oil, season with pepper, and place flesh side down in a nonstick or aluminum foil-lined baking pan. Roast for 30 minutes and remove from oven to cool. Meanwhile, bring marinara sauce to a simmer in a medium pot over medium-high heat. Stir in grated garlic and chickpeas, season with black pepper and reduce heat to low. When squash is cool enough to handle (about 15 minutes), scrape out spaghetti-like strands and drain in a colander. Combine squash strands with marinara sauce/chickpea mixture and stir in yeast flakes. Toss to coat, then transfer to a serving dish. Garnish with chopped parsley or basil and enjoy! *Makes eight servings.*

Adapted from shewearsmanyhats.com and foodnetwork.com.

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WHAT DO OTHER RECENT STUDIES SAY ABOUT EGGS AND HEART HEALTH?

A 2018 study of nearly 500,000 adults ages 30 to 79 who were tracked for nine years linked eating up to one egg daily to an 11% reduction in risk for heart disease, a 26% drop in stroke risk and an 18% decrease in risk for death from CV causes, independent of other risk factors, compared to those who ate few or no eggs. The research was published in the peer-reviewed journal Heart.

Another 2018 study found that eating 12 or more eggs a week for three months did not increase CV risk factors in people with diabetes or prediabetes when consumed as part of a healthy diet designed to help the people in the study lose weight. Participants who ate a diet high in eggs were compared with those who ate a low-egg diet (fewer than two per week), with both groups checked for changes in their levels of blood sugar, lipids and inflammatory markers, such as high-sensitivity c-reactive protein.

In a 2016 analysis pooling findings from seven previous studies, eating up to one egg daily was linked to a 12% reduction in stroke risk, while no clear association was found between eating eggs and an increased or decreased risk of heart disease.

DOES DIETARY CHOLESTEROL CLOG UP YOUR ARTERIES?

Although eggs have been demonized as "a heart attack in a shell," the "lipid hypothesis" — the theory that there is a direct relationship between eating high-cholesterol food and developing arterial disease — has long been controversial. A number of recent studies suggest that dietary cholesterol isn't nearly as dangerous as most people believe. For example, one study found that when people eat three or more eggs a day, their level of LDL (bad) cholesterol rose as expected, but the surprise was that their level of heart-protective LDL also went up.

Another intriguing finding was that when people ate three or more eggs per day, their bodies produced larger LDL and HDL particles than when they ate no eggs. That is important for two reasons: Bigger LDL particles are less likely to invade the artery wall and clump into plaque, while bigger, more robust HDL particles are better at ridding the bloodstream of harmful cholesterol. The researchers concluded that most people's bodies can handle dietary cholesterol in a way that is unlikely to harm the heart or blood vessels.

WHAT'S THE BALEDONEEN TAKEAWAY?

Our genes have much more influence on how we utilize the nutrients in our diet than our cholesterol intake. Eggs, like anything else, need to be consumed in moderation and calculated into our daily intake of fat, carbohydrates and proteins. The biggest threat to our heart health is that most people eat too much fattening foods of all types and exercise too little, expanding our waistlines and increasing our risk for arterial disease.

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As we recently reported, CVD in women is particularly likely to go undiagnosed and untreated. Sixty-four percent of women who die suddenly from a heart attack were previously unaware that they had CVD, which kills ten times more women each year than all forms of cancer combined. Recent studies also show that rates of heart attacks and strokes are on the rise in young adults (those under age 55), and in a study of heart attack survivors ages 18 to 55, only about half knew they were at risk before the event.

WHAT ARE THE BALEDONEEN TAKEAWAY ON ASPIRIN USE?

Unlike the standard of care, the BaleDoneen Method does not rely on risk-factor analysis alone. Our approach to prevention is based on a disease/inflammation paradigm in which all patients are considered "guilty" of harboring silent, deadly plaque in their arteries unless proven "innocent" through comprehensive laboratory and imaging testing, including carotid intima-media thickness (cIMT), an FDA-approved minute ultrasound scan of the neck's largest arteries.

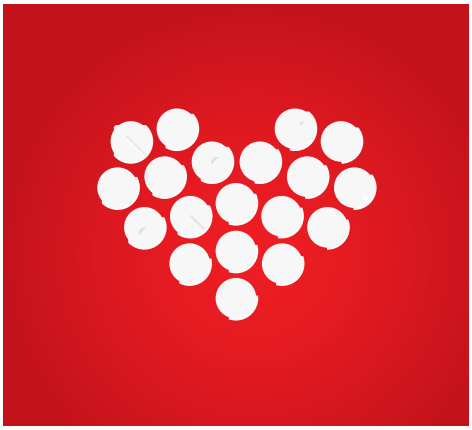
The AHA/ACC guidelines advise that to guide treatment decisions, including whether or not to prescribe ASA, for "select patients," providers consider using a different imaging test called the coronary artery calcium score (CACS) to evaluate the person's arterial health. While CACS is an excellent test, it can only detect calcified (stable) plaque, while cIMT can detect soft, vulnerable plaque (the most dangerous kind).

While we consider the inclusion of imaging in the guidelines an important step forward for the standard of care, we believe that the advice to limit it to select patients and base most decisions solely on risk factor estimates continues to leave millions of patients who have nontraditional risk factors — and silent, deadly plaque — in their arteries in potential peril.

Instead, we propose a precision-medicine, three-tiered approach that starts a comprehensive evaluation, including lab and vascular imaging tests. Patients would then be divided into three groups, based on the presence or absence of disease (plaque) as follows:

- Primary prevention. In the absence of arterial disease (plaque), the risk for a heart attack or stroke is so low that the benefits of ASA would be overshadowed by its potential harms. Instead, these patients should receive personalized therapies to reduce any potential risks they may have for future development of CVD, including genetic risks.
- Secondary prevention. We propose use of this term for patients who have arterial plaque but have not yet experienced a CV event. Given the presence of plaque, especially in patients who also have chronic inflammation, the risk for a heart attack or stroke outweighs the potential harms of low-dose ASA.
- Tertiary prevention. We propose this term to describe what the standard of care currently calls "secondary prevention," i.e. patients who have already experienced one or more CV events. The benefits of aspirin for this group are undisputed.

We also recommend that patients who are being considered for low-dose ASA for prevention of CVD or CV events



be screened for aspirin resistance. In a meta-analysis of 1,813 patients with CVD from twelve prospective studies, the average prevalence of aspirin resistance was 27%. Aspirin-resistant patients were also found to have nearly quadruple the rate of CV events, compared to aspirin-responsive patients. These findings highlight the importance of determining each patient's ASA status before prescribing a therapy that may fail to protect a large proportion of patients.

Moreover, this research — and another recent study reporting that aspirin-resistant patients are 14 times more likely to suffer recurrent strokes than ASA-responders — also reveals the value of a personalized approach to prevention in which each patient is treated as a unique individual, not according to the average results of large studies. Also talk to your medical provider about getting a new test called MyPGt to personalize your care so you get the safest, most effective medications at the right dose, based on your unique genetics.

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Rather than issue one-size-fits-all advice based on the average results from large studies, we advise a diet based on your DNA. The BaleDoneen Method uses genetic tests to identify the best diet for each patient, including analyzing your Apolipoprotein E (Apo E) genotype. This gene influences both your lifetime risk for arterial disease and the best diet to avoid it.

Following a diet based on your Apo E genotype fights one of the leading risks for heart attacks and strokes — abnormal lipid levels — by raising levels of HDL and lowering levels of LDL and triglycerides. To learn more about personalizing your eating plan for optimal arterial wellness, check out our blog post, "A Diet Based on Your DNA." For science-based ideas on how to slim down and improve your fitness, also read our blog posts, "7 Heart-Smart Weight-Loss Tips that Really Work" and "What's the Best Exercise to Reduce Your Waistline & Heart Attack Risk?"