Heart TALK

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

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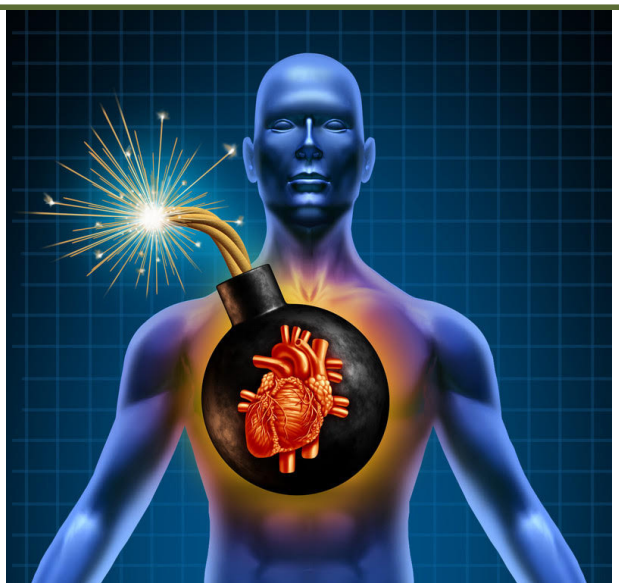
Thoughts from Dr. Amy

75 Million Americans Don't Know They Have This Heart Attack & Stroke Risk



About 84 million Americans — more than one in three adults — have a disorder that greatly increases their risk for two potentially lethal diseases: type 2 diabetes and cardiovascular disease (CVD), the leading killer of men and women, often from heart attacks and strokes. Although this disorder, prediabetes, can easily be detected with a blood test covered by almost all health plans, 90% of those with this extremely common blood sugar abnormality (about 75.5 million Americans) are unaware of their peril, according to the CDC.

Yet with early diagnosis and simple lifestyle changes, prediabetes can be reversed in up to 85% of cases without medication, large studies have shown. Here's a closer look at this often undiagnosed cardiovascular threat, how to find out if you have it, and what you can do to prevent or reverse it.

The Hidden Cause of Most Heart Attacks

It's very common for people to be diagnosed with prediabetes or diabetes after they've suffered a cardiovascular event. In one large study of people treated in the emergency room for a heart attack, 20% were known diabetics. When the other patients were given blood tests, 65% had abnormal blood sugar levels, with half having previously undiagnosed diabetes and the other half meeting criteria for prediabetes.

Patients often chalk this double whammy up to bad luck, believing they have been hit with two unrelated diseases at once. Some even wonder if their heart attack somehow triggered their blood sugar disease. Actually, most heart attacks and type 2 diabetes have the same root cause: insulin resistance (IR), an inflammatory disorder in which the body becomes insensitive to insulin, a hormone that helps our cells use glucose for energy.

IR forces beta cells in the pancreas to pump out more and more insulin, trying to keep up with demand. Eventually the beta cells become exhausted and blood sugar starts to rise, starting a slow march toward type 2 diabetes. If prediabetes goes untreated, a cascade of harmful effects occur, affecting all of the body's arteries. Because insulin resistance is an inflammatory disorder, it makes it easier for white blood cells and cholesterol to penetrate the blood-vessel lining and clump into plaque.

Once arterial disease develops, other biochemical changes sparked by IR further weaken the arterial lining, increasing the risk of a plaque rupture that could lead to a heart attack or stroke. Compounding the cardiovascular danger, people with IR are more prone to developing blood clots. That means if a plaque rupture happens, the resulting clot is likely to be bigger and more likely to trigger a more massive heart attack or stroke.

The No. 1 Warning Sign of Insulin Resistance

Because IR doesn't cause any noticeable symptoms, it often goes undiagnosed until people develop diabetes. However, there are several tip-offs that you might have it. The leading indicator is a large waistline (above 40 inches for a man and above 35 inches for a woman). Being overweight (a body mass index or BMI of 25 or more) is also a major risk factor for becoming insulin-resistant. Other potential indicators that you may be insulin resistant include the following:

- *Your lipid levels.* Surprisingly, people with IR usually don't have high LDL (bad) cholesterol. Instead, they often have high triglycerides (TG) and low levels of HDL (good) cholesterol.
- *A family history of diabetes or CVD.* Not only is a family history of

CONTINUED ON PAGE 4

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Breaking ground with the Bale/Doneen Method

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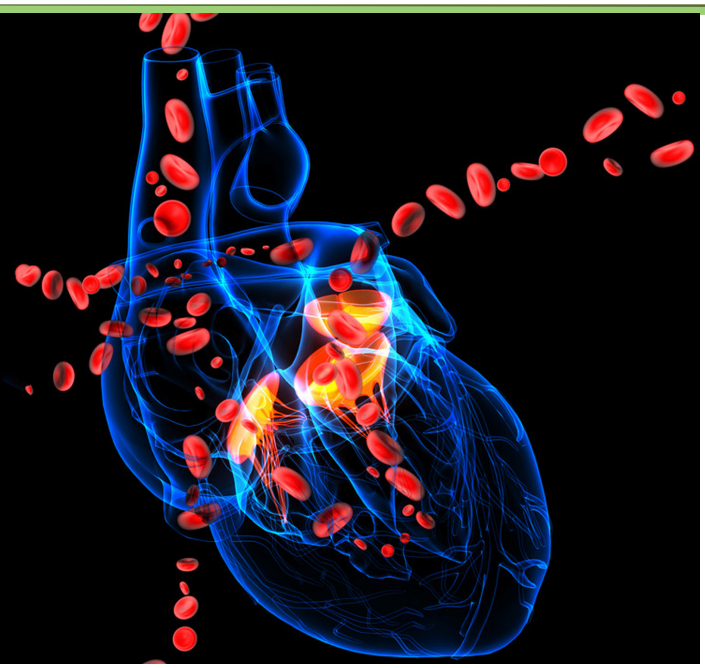
Bale Doneen METHOD™

Most Doctors Don't Know About This $20 Test for Hidden Heart Attack Risk



Celebrity fitness trainer Bob Harper thought he was in perfect health, until he suffered a near-fatal heart attack during a workout at a New York City gym and went into cardiac arrest. After a bystander performed CPR, the host of the hit TV show "The Biggest Loser" was rushed to the hospital where he spent two days in a coma, undergoing treatment for blockages in his "widow-maker" coronary artery.

Initially, doctors were baffled, since Harper, then 51, had always passed his annual medical exams with flying colors. A year later, he learned that a $20 blood test would have revealed that he had a common, inherited cholesterol abnormality that greatly increases risk for heart attacks and strokes, often at a young age. So why wasn't he checked for this dangerous disorder? Here's a look at this test, why the BaleDoneen Method recommends it, and how the information it provides could help you avoid a heart attack or stroke.

A Dangerous Cholesterol That Doesn't Respond to Statins

About 20% of Americans have elevated levels of a blood fat called lipoprotein (a) or Lp(a), a disorder that has been shown, unequivocally, to actually cause heart attacks. The BaleDoneen Method calls this inherited condition "the mass murderer" because elevated levels of this cholesterol triple risk for heart attacks, according to three large studies of nearly 45,000 people.

Unlike LDL (bad) cholesterol, Lp(a) isn't affected by lifestyle nor can it be effectively treated with cholesterol-lowering statin drugs if it's elevated, according to a new study published in Circulation. The researchers report that patients with one copy of the gene responsible for elevated Lp(a) levels are 58% more like to develop coronary heart disease (CHD) while taking a statin for prevention than those without the gene, while risk for CHD is more than doubled in statin users with two copies of the Lp(a) gene!

The study also found that aspirin therapy didn't have much, if any, effect on Lp(a) levels. These findings suggest that the two drugs most likely to be prescribed for heart attack and stroke prevention are not protecting the 20% of patients with this inherited condition, most of whom are undiagnosed and unaware of their peril.

A Deadly Gap in U.S. Healthcare

In 2010, the European Atherosclerosis Society (EAS) issued a scientific statement calling for routine screening and treatment of elevated Lp(a) levels as "an important priority to reduce cardiovascular risk." Yet in the U.S., it's still not the standard of care to treat — or even measure — this dangerous form of cholesterol that is found at elevated levels in up to one-third of heart attack survivors.

The BaleDoneen Method often sees patients who have suffered a heart attack or stroke, or multiple events, and still haven't been tested or treated for a cholesterol problem that has been shown to actually cause these catastrophes. Have you ever had your Lp(a) levels checked? Has your healthcare provider recommended this testing? If the answer is no, consider this: Being left in the dark about this test nearly cost Harper his life.

What Your Lp(a) Numbers May Reveal and a Potentially Lifesaving Treatment

We recommend that everyone get the Lp(a) test, which can be performed at the same time as conventional cholesterol testing. Each laboratory sets its own numbers for "normal" and "elevated" Lp(a) levels. Because this test checks for an inherited condition, if your levels are normal, there's no need to be tested more than once because your genes don't change.

If your levels are elevated, the best treatment is niacin (vitamin B3), which should only be taken under medical supervision. The EAS reports that niacin therapy can lower Lp(a) levels by up to 40% — a potentially lifesaving benefit. Decreasing Lp(a) was shown to reduce risk for cardiovascular events by about 75% in a recent study published in *Circulation*, highlighting the value of getting tested and treated if your levels are elevated. New treatments are on the horizon that show great promise for reducing Lp(a). If your levels are elevated, discuss therapy options with your medical provider.

Grilled Vegetable Kabobs with Chimichurri Sauce

Perfect for a Father's Day barbeque or a summer cookout for family and friends, this easy recipe pairs colorful, heart-healthy vegetables with zesty Argentine flavors. For a tasty variation, try it with other fruits and vegetables, such as pineapple, sweet or new potatoes, eggplant, leeks, or slices of corn on the cob. Chimichurri sauce is also delicious with grilled fish, chicken or steak.

INGREDIENTS

FOR THE SKEWERS

1 large zucchini, ends trimmed, halved lengthwise and cut into 3/4-inch slices
1 large yellow squash, ends trimmed, halved lengthwise and cut into 3/4-inch slices
1 large red onion, chopped into large pieces
1 red bell pepper, seeded and chopped into large pieces
1 green bell pepper, seeded and chopped into large pieces
1 pint grape tomatoes
8 wooden or bamboo skewers

FOR THE CHIMICHURRI SAUCE

3/4 cup fresh Italian parsley, finely chopped
3/4 teaspoon dried oregano
3 or 4 cloves garlic, minced
1/4 cup red wine vinegar
1/2 cup olive oil
2 teaspoons dried crushed red pepper
Freshly ground black pepper
1/2 teaspoon salt (optional)

Soak skewers in water for 30 minutes (so they don't burn during grilling). Preheat grill for 5 minutes on medium heat and lightly oil the grate. Alternately thread zucchini, squash, onion, red and green peppers and tomatoes on the skewers. Combine chimichurri ingredients in a bowl and mix well. (Chimichurri sauce can be prepared up to 24 hours in advance and refrigerated until needed. Bring to room temperature before use.) Grill vegetable skewers until the grate leaves a set of lightly charred lines, then turn. Cook until vegetables are tender (about 10 to 15 minutes). Remove from grill and brush skewers with chimichurri sauce or serve sauce separately and enjoy! Serves four.

Adapted from Seriouseats.com, cafedelites.com and foodandwine.com.

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CONTINUED FROM PAGE 1

diabetes a powerful indicator of risk for IR, but having relatives who developed CVD at an early age can also be a warning sign, given that IR is the root cause of most heart attacks and strokes.

- ***High blood pressure.*** Biochemical changes caused by IR can cause arteries to become narrower and less flexible, explaining why people with insulin resistance often develop high blood pressure.
- ***Lack of sleep***. A recent study found that sleeping fewer than six hours a night triples the risk for prediabetes.
- ***Periodontal (gum) disease.*** Research suggests a two-way link: Periodontal disease worsens IR, and having IR raises risk for developing gum disease.
- ***Your age.*** Because diabetes is more common in middle-aged and older people, the American Diabetes Association (ADA) advises starting screening at age 45, or at a younger age if you have risk factors, such as obesity, physical inactivity or a family history of diabetes.
- ***Your ethnicity.*** Rates of diabetes and IR are higher in African-Americans, Hispanic-Americans, Native Americans, Asian Americans, and Pacific Islanders.
- ***Your medical history***. Your risk for IR is higher if you have certain medical conditions, including erectile dysfunction, polycystic ovary syndrome (PCOS) or a history of gestational diabetes (high blood sugar during pregnancy).

The Best Test to Check for Prediabetes

The BaleDoneen Method recommends the two-hour oral glucose tolerance test (OGTT), a blood test which the ADA has called " the gold standard" in screening for problematic blood sugar levels. Covered by almost all health plans, the OGTT involves drinking a sugary liquid after an overnight fast. Blood samples are taken one and two hours later to measure glucose levels, with a level of 140 to 200 mg/dL being diagnostic of prediabetes and one above 200 indicating diabetes.

Many medical providers, however, use an unreliable screening test called hemoglobin A1C. Because it doesn't require fasting before the blood is drawn, it's convenient for busy patients. However, the results can frequently be misleading, as a Bale-Doneen study presented at the 4th International Congress on Prediabetes and Metabolic Syndrome recently revealed.

The study found that of 527 patients whose blood sugar was checked with various tests, using the A1C test alone would have missed 63% of those with prediabetes! Additionally, the study also demonstrated that 27% of those classified by the A1C test as having prediabetes actually had normal blood sugar when measured by the highly accurate OGTT.

This alarmingly high error rate — and published data from other researchers with similar findings — are why we recommend against the A1C test. We also recommend against another commonly used screening test known as the fasting plasma glucose test, which has also been shown to be unreliable for diagnosing prediabetes, the earliest and most easily treatable form of blood sugar disease.

How to Avoid or Reverse Prediabetes — Without Medication

About 90% of people who develop prediabetes/IR are overweight with a sedentary lifestyle. If you fit that description, here's what you need to know: Lifestyle changes can dramatically reduce your risk for IR — and in many cases, can even reverse the disease if you already have it.

In a recent study of more than 3,000 prediabetic people, those who lost 10% of their body weight through a healthy diet and exercising 150 minutes a week reduced their risk for developing full-blown diabetes by 85%. Even modest weight loss had powerful benefits, since those who shed 5% to 7% of their body weight lowered their risk by 54%. Without lifestyle modification or other treatments, many people with prediabetes will progress to full-blown disease within 10 years.

To keep your heart — and pancreas — healthy, we advise cutting down on TV and other screen time and spending a minimum of 22 minutes exercising daily. Check with your medical provider about which activities are most appropriate for you. Also check out our blog post about the best exercises to reduce your waistline and heart attack risk.

An easy first step to counteracting the harmful effects of a sedentary lifestyle is to take short activity breaks from sitting: A recent study found that even among people who spent most of their day parked in a chair, those who took the most activity breaks — even ones as brief as one minute at a time — had, on average, thinner waists (by nearly two inches) and lower levels of inflammatory markers, triglycerides and blood sugar. That's powerful motivation to rise up and move more!