

Silent Heart Attacks:

Many people assume that all heart attacks happen the way they are depicted in movies or on TV: A person clutches his or her chest and collapses to the floor in agony. In reality, more than 50 percent of heart attacks are "silent," causing minimal or no symptoms. Although these events often go unrecognized and untreated, silent heart attacks can be just as damaging as those that cause such "classic" symptoms as crushing chest pain; stabbing pain in the arm, neck or jaw; heavy sweating; dizziness; nausea; and sudden shortness of breath.

Several recent studies highlight the dangers of silent heart attacks, including increased risk for stroke, repeat heart attacks, heart failure and even sudden cardiac death. Also known as silent myocardial infarction (SMI), these events triple a person's risk for dying from cardiovascular disease (CVD). The good news, however, is that ALL heart attacks are potentially preventable. Here is a closer look at SMI and who is at risk, plus expert advice from the BaleDoneen Method on how to protect and enhance your arterial wellness.

What happens during a silent heart attack?

Blood clots cause the vast majority

of both silent and symptomatic heart attacks, and all ischemic strokes. Clot formation is the end result of a long disease process that begins with inflammation in the walls of the arteries, leading to the development of plaque deposits (atherosclerosis). If this disorder goes untreated, the plaque may become so inflamed that it ruptures explosively through the arterial wall, much like a volcano spewing molten lava.

When a plaque rupture tears the arterial lining, the body tries to heal the injury by forming a clot. If the clot obstructs the flow of blood to part of the heart, the result is a heart attack. A clot that travels to the brain can cause an ischemic stroke (a stroke caused by

loss of blood flow to part of the brain). In many cases, these events are the first symptom of CVD, a disease that often progresses silently over many years if it goes undiagnosed and untreated.

During an SMI, people may experience mild symptoms that are often chalked up to other, less serious conditions. For example, the person may feel unusually tired and attribute it to stress, lack of sleep or overwork. Other symptoms include chest discomfort that may be mistaken for heartburn; aches in the chest, jaw, back, arms or neck that may be attributed to muscle strain or the flu; and dizziness, nausea or vomiting that can feel like stomach

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Vibrant colors and luscious flavors make this recipe a visual and gastronomic delight. Rich in heart-healthy antioxidants, vitamins and minerals, this hearty salad is low in calories. It's easy to prepare because the marinade, plus one extra ingredient, is also used for the salad dressing. For a vegetarian version, omit the chicken and add more beans or grilled tofu or seitan. For a flavor variation, use kidney or pinto beans instead of black beans.

INGREDIENTS

For the marinade:

- 2 tablespoons olive oil, divided
- 1/3 cup freshly squeezed lime juice
- 4 tablespoons finely chopped fresh cilantro or parsley
- 2 garlic cloves, crushed
- 1/2 teaspoon red chili flakes
- 1/2 teaspoon ground cumin
- 2 skinless, boneless chicken breasts (about 12 ounces)
- 1/4 cup plain Greek yogurt

For the salad:

- 2 hearts of Romaine lettuce, chopped (about 4 cups)
- 1 cup cooked or canned black beans, drained and rinsed
- 1 cup cherry or grape tomatoes, halved
- 1 cup fresh or frozen, defrosted corn kernels
- 1 ripe avocado, diced
- 1 cup mini or full-sized bell peppers, sliced
- Lime wedges for garnish (optional)



PREPARATION

Whisk olive oil, lime juice, cilantro or parsley, garlic, red chili flakes and cumin together. Place chicken in a shallow dish, coat with half of the marinade and marinate for one to two hours, if time permits. Prepare salad dressing by adding Greek yogurt to the remaining marinade. Mix well and refrigerate until needed.

Preheat grill to medium high. Grill chicken, flipping once, until golden brown on both sides and cooked through (about 15 to 20 minutes). Remove from heat and allow chicken to rest. Once chicken is cool enough to handle, slice into strips. Prepare salad by arranging lettuce, black beans, tomatoes, corn, avocado, peppers and chicken strips in a large salad bowl or a serving platter. Drizzle with dressing, garnish with lime wedges (if using) and enjoy! **Serves four.**

Adapted from cafedelites.com and amindfulmom.com.

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virus. Unexplained shortness of breath or breaking out in a cold sweat can also be warning signs. It's also possible to have no symptoms at all. If you think you or someone you know might be having a silent heart attack, call 911 or go to the emergency room.

Who is at risk for a silent heart attack?

We recently reported insulin resistance (IR) is the root cause of about 70 percent of heart attacks and almost all cases of type 2 diabetes. It's very common for people to be diagnosed with diabetes or prediabetes shortly after they experience a heart attack, because this blood sugar disease often goes undiagnosed until it has caused serious complications. About one in

three with diabetes or prediabetes don't know they have a disease that silently ravages their blood vessels because they haven't had the most accurate screening test to check for this extremely common disorder: the two-hour oral glucose tolerance test.

A 2012 study published in *Journal of the American Medical Association (JAMA)* found that SMIs are much more common than those with recognized symptoms in older adults with diabetes, compared to nondiabetic patients of the same age. The researchers used cardiac MRI imaging to check 936 men and women ages 67 to 93 for evidence of SMI. Twenty-one percent of those with diabetes had suffered an SMI and 11 percent had experienced a recognized heart attack, compared with 14 percent and 9 percent of the nondiabetic participants, respectively.

People who had had an SMI had a higher death rate during the study period than those who had not experienced one. The study also found that people who had experienced an unrecognized heart attack were much less likely to be taking medications that are known to reduce risk of repeat events, such as statins and low-dose aspirin, than those who had a recognized heart attack (36 percent versus 73 percent). Lack of treatment may explain the higher death rate in the SMI group. Participants who had experienced recognized and unrecognized heart attacks had similar risk factors, such as high blood pressure, high cholesterol, obesity, diabetes, lack of exercise, a poor diet and smoking.

A 2016 study found that men are more likely to suffer a SMI than women are, but women who have one are

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more likely to die in the ensuing years. The participants were tracked for more than 13 years. Women who had suffered an SMI were 58 percent more likely to die during the study period, compared to women who had not had a heart attack, while the mortality rate for men who had an SMI was only 23 percent higher than that of men without a heart attack. This deadly gender gap may be due to disparities in care, since heart disease is underdiagnosed and undertreated in women.

Why are silent heart attacks so dangerous?

Both SMIs and conventional heart attacks can cause scarring and other injuries to the heart, putting survivors of these events at increased risk for other cardiovascular problems. Since people who have SMIs usually don't realize that they need emergency care, they miss out on potentially lifesaving therapies to rapidly restore blood flow to the heart — and reduce cardiac damage — such as stents to prop the blocked vessel open or bypass surgery to reroute blood around the obstruction.

Moreover, people whose heart attacks go unrecognized may also miss out on follow-up care that could help them avoid having another heart attack, such as medications, supplements and counseling about lifestyle changes. In addition, people who don't realize they've had a heart attack may not be as highly motivated to adopt heart-healthy habits as those who know that they have already survived a potentially life-threatening event. Recent studies have linked SMI to the following perils:

- **Increased risk for stroke.** A [2019 study](#) found that people who have had SMIs have a 50 percent higher rate of ischemic stroke, as compared to those who have not had any type of heart attack. Published in *JAMA Neurology*, the study included 925 participants, all of whom received both cardiac and brain MRIs to check for evidence of SMI and stroke. The researchers suggest that unrecognized heart attack may be a novel risk factor for ischemic stroke, particularly those of seemingly unknown origin.

- **Higher risk for heart failure.** A 2018 study reported that people who



have suffered a recognized or unrecognized heart attack are much more likely to develop heart failure (HF), compared to people without a heart attack. Having an SMI raised risk for HF by 35 percent and having a recognized heart attack doubled it. The research was published in *JAMA Neurology*.

- **Greater risk for sudden cardiac death.** An analysis of medical and autopsy records of more than 5,000 people who experienced sudden cardiac death found evidence of SMI (such as scarring on the heart) in 42 percent of those who had no known history of CVD. Tragically, these individuals also had signs of advanced CVD that had gone unrecognized and untreated. Most of them had enlarged hearts, an abnormality indicating that their hearts were struggling to meet the body's demand for oxygenated blood.

What's the best way to prevent silent heart attacks?

Taken together, the frightening findings discussed should be a wake-up call to patients about the supreme importance of being screened for CVD, the leading killer of men and women. Early detection and treatment of this

disease saves lives, hearts and brains!

Two [recent peer-reviewed studies](#) have shown that the BaleDoneen Method can effectively prevent, detect, treat and even reverse arterial disease, helping patients avoid silent and recognized heart attacks and strokes. As an added bonus, our evidenced-based approach to prevention also helps prevent new-onset diabetes. We have also observed that patients treated with our method have a significantly lower risk for chronic diseases of aging, such as Alzheimer's disease, vascular dementia, chronic kidney disease, erectile dysfunction, peripheral artery disease, cancer, HF, high blood pressure and atrial fibrillation.

Talk to your healthcare provider today about getting a comprehensive evaluation of your arterial health, including lab tests to check for chronic inflammation (the fire in the arteries that ignites heart attacks and strokes in those with atherosclerosis) and a [painless 15-minute ultrasound exam](#) called carotid intima-media thickness (cIMT) to check for hidden signs of arterial disease. A directory of healthcare providers trained in the BaleDoneen Method is available on our website, www.baledoneen.com.