

# The Uncommon Heart Attack That Kills Healthy, Young Women

Analysis by [Dr. Joseph Mercola](#)

✓ Fact Checked

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## STORY AT-A-GLANCE

- › Symptoms of an uncommon type of heart attack known as spontaneous coronary artery dissection (SCAD) are easily overlooked, as few SCAD patients have any history of or risk factors for heart disease
- › SCAD is a leading cause of heart attacks in healthy women under 55; the average age of SCAD patients is 42. Eighty percent of SCAD patients are women; 20% have recently given birth
- › SCAD occurs when the layers of your blood vessel wall tear apart from each other, trapping blood between the layers. As the blood collects between the layers, your blood vessel gets choked off, triggering a heart attack
- › Most SCAD patients are healthy. Risk factors for the condition include underlying blood vessel conditions such as fibromuscular dysplasia, extreme exercise and severe emotional stress
- › Common signs and symptoms of a SCAD-induced heart attack, and current treatment recommendations are included

***Editor's Note: This article is a reprint. It was originally published March 8, 2018.***

The symptoms of an uncommon type of heart attack known as spontaneous coronary artery dissection (SCAD)<sup>1</sup> are dangerously easy to overlook, as few SCAD patients have

any history of or risk factors for heart disease. SCAD is a leading cause of heart attacks in healthy women under 55; the average age of SCAD patients is 42.

ABC News recounts the stories of two women whose sudden heart attacks were triggered by SCAD.<sup>2</sup> Five weeks after giving birth to a healthy baby girl, Maryn Cox suddenly developed troubling symptoms. "It felt like pressure, possibly gas; acid reflux, I wasn't sure what it was. One of my arms went numb, I started getting nauseous; cold sweats," she says. The symptoms, while common, turned out to be SCAD, a condition few have ever heard of.

While SCAD is a cause of heart attack, it's different from a heart attack caused by coronary artery disease. Essentially, SCAD occurs when the layers of your blood vessel wall tear apart from each other, trapping blood between the layers. As the blood pools and collects between the layers, your blood vessel gets choked off, killing heart muscle tissue downstream from the blockage, thereby triggering a heart attack.

## **Signs and Symptoms of SCAD**

Commonly reported signs and symptoms of SCAD include the following. If you experience these symptoms, call for immediate emergency medical assistance (in the U.S., call 911). It's important to realize that many who develop SCAD are otherwise quite healthy and most do not have risk factors for heart disease. For this reason, it's important to seek medical attention if you experience symptoms of SCAD, in order to avoid a lethal heart attack.

Indeed, the No. 1 symptom of a heart attack is sudden death, and the same applies to SCAD. In essence, by the time recognizable symptoms of a heart attack occur, you're well on your way toward death, so early intervention is crucial.

Lightheadedness

Sweating

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Radiating pain in your neck, back or jaw

Shortness of breath

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Pain, tightness, pressure or discomfort in your chest (some women report feeling like their bra is suddenly too tight, even though they know it's not)

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Stomach pain

Fatigue

Pain radiating down one or both arms

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For whatever reason, SCAD tends to be more common in women – especially younger women, and following pregnancy – although it's a relatively rare condition overall. While the cause for SCAD is unknown, medical experts have theorized the gender difference may have something to do with hormonal variations. Common risk factors for SCAD include:

- Being female (80% of SCAD patients are women)
- Recently giving birth (20% of SCAD patients have recently given birth)
- Underlying blood vessel conditions such as fibromuscular dysplasia (a condition that causes abnormal cell growth in the arteries)
- Extreme physical exercise
- Severe emotional stress

## **Best Treatment for SCAD Is Allowing Body to Heal Naturally**

Because the underlying cause of SCAD is still unknown, the best course of treatment has been equally uncertain. However, according to a recent scientific statement by Mayo Clinic researchers, SCAD sufferers tend to benefit the most from "conservative treatment, letting the body heal on its own."<sup>3</sup>

Dr. Sharonne Hayes, the Mayo Clinic cardiologist who since 2010 has dedicated herself to the study of SCAD (see videos above), says, "It may seem counterintuitive, but we discovered that treating SCAD the same way we treat heart attacks due to

atherosclerosis can cause further tearing and damage to the vessel. [T]he initial proper diagnosis is critical in guiding the care."

The Mayo Clinic consensus statement is a significant step forward, providing health care providers with information about how to diagnose and treat SCAD. Importantly, their findings reveal that, in most patients who were not treated with a stent, the dissection in the blood vessel healed on its own within weeks or months.

In some patients, healing began within mere days. The statement also recommends a tailored cardiac rehabilitation program for patients, and stresses the importance of addressing mental health, as anxiety and depression tend to be quite common in SCAD patients.

## **Many Women Mistake Heart Attack Symptoms With Anxiety, Stress**

In related research,<sup>4</sup> researchers found women are less likely to report chest pain when having a heart attack. According to the authors, compared to men, "women were more likely to perceive symptoms as stress/anxiety (20.9% versus 11.8%) but less likely to attribute symptoms to muscle pain (15.4% versus 21.2%)." They were also more likely to use terms such as "pressure," "tightness" or "discomfort" in the chest rather than referring to it as chest pain.

They also found that a significantly greater number of women reported their doctor did not think their symptoms were heart-related. Overall, 53% of female heart attack patients reported this, compared to just 37% of men.

Nearly 30% of women had actually sought medical help prior to being hospitalized with a heart attack, compared to just 22% of men. What these findings suggest is that both women and their doctors tend to misdiagnose or dismiss symptoms of heart attack, placing them at increased risk of death than men. As noted by the authors:

*"The presentation of [acute myocardial infarction] symptoms was similar for young women and men, with chest pain as the predominant symptom for both sexes. Women presented with a greater number of additional non-chest pain symptoms regardless of the presence of chest pain, and both women and their health care providers were less likely to attribute their prodromal symptoms to heart disease in comparison with men."*

## **Top 6 Factors That Predict Your Heart Attack Risk**

If you want to reduce your risk of a heart attack, you should absolutely pay attention to your diet and exercise habits. These, along with four other habits, are said to make young women more or less "heart attack-proof," according to research published in the *Journal of the American College of Cardiology*.<sup>5</sup>

Women who adhered to all six guidelines lowered their heart disease risk by 92%. Based on these findings, the researchers estimated that more than 70% of heart attacks could be prevented by implementing the following:

1. A healthy diet discussed in my two most recent books "Effortless Healing" and "**Fat for Fuel**"
2. Normalizing your body weight (your waist-to-hip ratio being a more reliable risk predictor than body mass index, as it reflects your visceral fat deposits)
3. Getting at least 2.5 hours of exercise each week and moving regularly throughout the day
4. Restricting your TV watching to seven or fewer hours per week
5. Not smoking
6. Limiting alcohol intake to one drink or less per day

These results echo those of a 2014 study,<sup>6</sup> which concluded that the following five healthy lifestyle strategies could prevent nearly 80% of first-time heart attacks in men. As noted by the authors, "It is not surprising that healthy lifestyle choices would lead to

a reduction in heart attacks ... What is surprising is how drastically the risk dropped due to these factors."

- A healthy diet
- Being physically active (walking/bicycling  $\geq$  40 minutes/day and exercising  $\geq$  one hour/week)
- Maintaining a healthy waist circumference (waist circumference  $<$  37.4 inches or 95 centimeters)
- Moderate alcohol consumption (10 to 30 grams/day)
- No smoking

## Tests to Evaluate Your Heart Disease Risk

While SCAD is an exception, most heart attacks are caused by heart disease. Unfortunately, many are still evaluating risk based on the flawed cholesterol hypothesis. In reality, high cholesterol is not a significant risk factor for heart disease or heart attacks at all.

As you evaluate your risk of cardiovascular disease, there are specific ratios and blood level values that will tell you much more than your total cholesterol numbers. The following tests will also give you a better assessment of your potential risk for heart attack or coronary artery disease:

- **Cholesterol ratios** — Your HDL to cholesterol ratio and triglyceride to HDL ratio are strong indicators of your risk. To calculate your HDL/cholesterol ratio, divide your HDL by your total cholesterol and multiply by 100. That percentage should ideally be above 24%. For your triglyceride/HDL ratio, divide your triglyceride total by your HDL and multiply by 100. The ideal percentage is below 2%.
- **NMR LipoProfile** — The size of your low-density lipoprotein (LDL) cholesterol is more important than your overall total LDL level. Large particle LDLs are not harmful to your health while the smaller, denser LDL particles may create problems

as they squeeze through the lining of your arteries, oxidize and trigger inflammation.

An NMR LipoProfile that measures the size of your LDL particles is a better assessment of your risk of heart disease than total cholesterol or total LDL.

- **Fasting insulin level** – Sugar and carbohydrates increase inflammation. Once eaten, they trigger a release of insulin, promoting the accumulation of fat and creation of triglycerides, making it more difficult for you to lose weight or maintain your normal weight. Excess fat around your midsection is one of the major contributors to heart disease.<sup>7</sup>

Your fasting insulin level can be determined by a simple, inexpensive blood test. A normal fasting blood insulin level is below 5 microunits per milliliter (mcU/ml) but, ideally, you'll want it below 3 mcU/ml. If your insulin level is higher than 3 to 5, the most effective way to optimize it is to reduce net carbs, replacing them with higher amounts of healthy fats, including saturated fats.

- **Fasting blood sugar level** – Studies have demonstrated people with higher fasting blood sugar levels have a higher risk of coronary heart disease.<sup>8</sup> In fact, when your fasting blood sugar is between 100 and 125 mg/dl, your risk of coronary artery disease is 300% higher than having a level below 79 mg/dl.
- **Iron level** – Iron creates an environment for oxidative stress, so excess iron may increase your inflammation and increase your risk of heart disease. An ideal **iron level** for adult men and non-menstruating women is between 40 and 60 nanograms per milliliter (ng/ml). You do not want to be below 20 ng/ml or above 80 ng/ml.

## Learn to Implement Heart Healthy Lifestyle Strategies

Any time you experience any kind of chest pain or discomfort, it's important to take it seriously and contact your doctor. Keep in mind that not everyone experiences chest pain or discomfort during a heart attack. Other signs and symptoms include:

- Upper body pain or discomfort in your arms, back, neck, jaw or upper stomach
- Shortness of breath
- Nausea
- Lightheadedness
- Cold sweats

You're far better off getting a diagnosis of heartburn than dying, which is the most common "symptom" of a heart attack. Your chances of survival are greater if you get emergency treatment quickly. Especially if you're a woman, be extra mindful of troublesome symptoms that might be heart-related, as women are misdiagnosed far more often than men. You may even have to insist on a more in-depth evaluation by your doctor if he or she seems immediately dismissive.

Last but not least, remember that heart attack prevention is primarily lifestyle related, as indicated by the studies above. In addition to the strategies mentioned earlier, consider:

Reducing, with the plan of eliminating, grains and sugars in your diet. It is vitally important to eliminate gluten-containing grains and sugars, especially fructose. Also consume a good portion of your food raw.

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Replacing harmful vegetable oils and synthetic trans fats with healthy fats, such as olive oil, butter, avocado, organic pastured eggs and coconut oil (remember olive oil should be used cold only; use coconut oil for cooking and baking).

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Also make sure you're getting plenty of high-quality, animal-based omega-3 fats.

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Eating more fermented foods. In addition to optimizing your intestinal microflora, which will boost your overall immunity, it will also introduce beneficial bacteria into your mouth. Poor oral health is another powerful indicator of increased heart disease risk.

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Optimizing your vitamin D levels, ideally through appropriate sun exposure as this will allow your body to also create vitamin D sulfate – another factor that may play a



crucial role in preventing the formation of arterial plaque.

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Ideally, incorporate high-intensity interval exercises into your fitness routine, as this will also optimize your human growth hormone production.

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Getting plenty of high-quality, restorative sleep.

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Practicing regular stress-management techniques.

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## Sources and References

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