

Could You Have a Heart Attack and Not Know It?

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STORY AT-A-GLANCE

- > Although there are several common symptoms of a heart attack, some experience unusual symptoms they may overlook, leading to a more severe and potentially lifethreatening second heart attack
- Learn to identify some of the more uncommon symptoms of a heart attack, including tightness in your arm, tingling on your left side, upper back pain, hot flashes and heartburn
- > Data show your risk of a heart attack is affected by your body mass index, smoking and alcohol use, exercise and diet; stress is another factor that can provoke a heart attack
- > Taking quick action when you suspect a heart attack may save a life. Simple changes to your diet, exercise and sleep habits may significantly reduce your risk

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According to the Centers for Disease Control and Prevention, nearly 805,000 Americans have a heart attack each year, and 605,000 are first heart attacks. When you learn the risk factors, symptoms and how to take early action, it increases your chances of survival.

According to the U.S. Department of Health and Human Services, some who suffered a heart attack did not act quickly enough to make it to the hospital on time.² Delaying treatment can be deadly, so it's important to learn the warning signs.

While chest pain is the single most common sign for many women, women are also more likely than men to have symptoms other than chest pain when experiencing a heart attack.

What Is a Heart Attack?

Your heart is an extraordinary organ that can function even when detached from your body as long as it is supplied with an adequate amount of oxygen. It works relentlessly to pump blood throughout your body, so it is crucial the muscle receives enough oxygenated blood and nutrients or it can die.

Your heart beats nearly 100,000 times every day and pumps nearly 1 million barrels of blood in an average lifetime. This is enough blood to fill more than three supertankers. One way your heart may experience a loss of blood supply is if there is plaque buildup in your arteries, blocking the flow to your heart.

Heart attack can also happen when blood supply is affected by narrowed heart arteries, commonly known as ischemic heart disease. Although sometimes used interchangeably, a heart attack and cardiac arrest are two different occurrences. Sudden, unexpected cardiac arrest is the third leading cause of death in the U.S.,3 but it is different from a heart attack.

The most immediate and recognizable difference is that a heart attack victim will remain conscious with their heart beating, while someone who suffers a sudden cardiac arrest will be unconscious with no discernible heartbeat.

While a heart attack affects the oxygen supply to the heart muscle, cardiac arrest affects the electrical impulses. During a heart attack, part of the heart may have a reduction in oxygen supply if the blood is restricted, but the remaining areas of the muscle will continue to beat.

During a cardiac arrest, the electrical system is impacted by physical conditions, such as cardiomyopathy, heart failure or arrhythmias. A heart attack will also increase your

risk of having a sudden cardiac arrest since the loss of oxygen supply will affect the electrical system in the heart.

This is perhaps the most common reason for a sudden cardiac arrest.⁴ In other words, loss of oxygen to the heart muscle from a heart attack affects the electrical impulses and may trigger a cardiac arrest.

What Increases Your Risk of Heart Attack?

Although there are stories of people who have a heart attack even when they eat right and exercise, these are the exception rather than the rule. The fact is, no matter how perfectly you eat or how fit you are, there's no guarantee you'll remain heart attack free. Women's Health Magazine shares the stories of five young women and the unusual symptoms they had while suffering a heart attack.⁵

In a study of over 88,000 women ages 27 to 44 years in the Nurse's Health Study II, researchers documented 456 cases of coronary heart disease. They found women who adhered to six guidelines lowered their risk of heart disease by 92%. Based on this information, the researchers extrapolated more than 70% of heart attacks could be prevented if individuals implemented:

- · A healthy diet
- Normal body mass index (BMI)
- Getting at least 2.5 hours of exercise each week and watching television seven or fewer hours per week
- Avoiding smoking
- Limiting alcohol to one drink or less per day

Although researchers measured BMI, it should be noted your waist-to-hip ratio is a more reliable risk predictor as it is a greater reflection of visceral fat. The results of this study also support results from a study published the previous year, which concluded the same health habits could prevent 79% of first-time heart attacks in men.^{7,8}

To this I would add maintaining a healthy iron level is important for your heart, as various studies show that both iron deficiency and iron overload⁹ can be a significant risk factor for heart attack. To that end, excess iron is a more common problem than you may think when it comes to affecting your heart.

For example, a Scandinavian study in Finland¹⁰ found elevated ferritin levels raised men's risk of heart attack two- to threefold. Another¹¹ found elevated ferritin doubled the risk of a fatal heart attack at 2.18, while women with high levels were five times more likely (5.53) to have a fatal heart attack.

Stress Influences Your Heart Health

Stress has an enormous impact on your health. While acute stress is a life-saving biological function enabling you to instinctively square off against an assailant, run away from a predator or take down prey, chronic stress activating the same biological reaction over long periods of time can cause your body to marinate in corrosive hormones around the clock, and has serious consequences.

Chronic stress may lead to the accumulation of stubborn fat, high blood pressure and heart attacks. It increases inflammation in your body and activates your sympathetic nervous system, suppressing your parasympathetic system.

In one study,¹² researchers found young and middle-aged women have a harder time recovering after a heart attack than men. They theorized this may be due to the stress of carrying multiple roles. Women are also twice as likely as men to die within the first two weeks following a heart attack.¹³

Data have demonstrated a link between bouts of intense anger with an 8.5fold higher risk of experiencing a heart attack in the following two hours. 14 Stress also increases your risk of heart attack by triggering over activity in your amygdala, activated in response to real and perceived threat. Researchers 15 measured nearly 300 participants over the age of 30, none with a diagnosed heart problem.

Participants were observed over two to five years, during which 22 experienced a serious cardiac event. Based on brain scans, the researchers conclude those with higher levels of activity in the amygdala were at an elevated risk of a cardiac event.

In short, people who are highly stressed have a higher activity in the amygdala, which in turn increases inflammation, a risk factor for heart disease. While not concrete proof of causation, activation of the amygdala can trigger arterial inflammation by triggering immune cell production in the bone marrow.

Stress can also trigger a heart attack by raising your levels of disease promoting white blood cells, leading to atherosclerosis, plaque rupture and myocardial infarction. The release of norepinephrine during high-stress events can also cause the dispersal of bacterial biofilms within the walls of your arteries, allowing plaque deposits to break loose, thereby triggering a heart attack.

Symptoms of Heart Attack

When a heart attack starts, blood flow to your heart has suddenly become blocked and the muscle can't get oxygen. If not treated quickly, the muscle fails to pump and begins to die. While often a result of coronary heart disease, a blockage in an artery of the heart can occur following clot formation. Some of the most common symptoms of a heart attack include:¹⁷

| Chest pain or discomfort | Upper body discomfort |
|--------------------------|------------------------------|
| Shortness of breath | Breaking out in a cold sweat |
| Nausea | Sudden dizziness |
| Feeling unusually tired | Lightheadedness |

However, while it's important to know the common signs of a heart attack, not all heart attacks begin with a sudden crushing chest pain as you might have seen on TV or in the

movies. Symptoms can vary from person to person and some may have very few symptoms, especially women.¹⁸

Many Women Mistake Heart Attack Symptoms as Anxiety or Stress

Importantly, research^{19,20} shows 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. A significantly greater number of women also reported that 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."

Unfortunately, the absence of chest discomfort is a strong predictor of diagnosis and treatment delays.²¹ For this reason, it's important to remember there are many other symptoms that might indicate a heart attack in progress, including the following:²²

Anxiety attack

Back pain

| Heartburn | Hot flashes |
|---|--|
| Extreme fatigue | Feeling electric shocks down on the left side |
| Numbness and stiffness in the left arm and neck | Feeling like they had a large pill stuck in their throat |

Quick Action Saves Lives

Some of the more uncommon symptoms of a heart attack may lead you to believe you aren't having a heart attack. Even if you're not sure you're having a heart attack, if you experience any of these symptoms, it is vital you call for immediate emergency care, as time is of the essence. Acting quickly can save your life.

Using an ambulance is the best and safest way to get to the hospital as emergency personnel can start life-saving treatments before reaching the hospital emergency room and those who arrive by ambulance often receive faster treatment upon arrival.

Emergency medical personnel would much rather treat you in the emergency room for a nonlife-threatening condition then have you die because you were unwilling to go to the emergency room for treatment. You and your family should work out action steps to take should a heart attack occur so there are no questions of what to do.

During a routine office visit, talk to your health care provider about your risks and keep important information with you in case of an emergency. For instance, write down all medications and supplements you're taking on a card and laminate it, keeping it in your wallet or purse.

Three Underlying Causes of Heart Attacks

While blocked arteries is the conventional explanation for why heart attacks occur, there's plenty of evidence refuting that notion. In his 2004 book, "The Etiopathogenesis of Coronary Heart Disease,"²³ the late Dr. Giorgio Baroldi wrote that the largest study done on heart attack incidence revealed only 41% of people who have a heart attack actually have a blocked artery, and of those, 50% of the blockages occur after the heart attack, not prior to it.

This means at least 80% of heart attacks are not associated with blocked arteries at all. According to Dr. Thomas Cowan, a practicing physician, founding board member of the Weston A. Price Foundation and author of "Human Heart, Cosmic Heart," three of the core, underlying issues that cause heart attacks are:

- Decreased parasympathetic tone followed by sympathetic nervous system
 activation Common causes for this include chronic stress, poor sleep, high blood
 pressure, diabetes, a high-sugar, low-fat type of diet, smoking and factors that
 contribute to low mitochondrial function. (In my book, "Fat for Fuel," I address a
 number of factors that suppress mitochondrial function, thereby leading to low
 sympathetic tone.)
- Collateral circulation failure (lack of microcirculation to the heart) To understand
 how the blood flows to and through your heart, check out the Riddle's Solution
 section on heartattacknew.com's FAQ page.²⁴ There, you'll find detailed images of
 what the actual blood flow looks like.

Contrary to popular belief, blood flow is not restricted to just two, three or four coronary arteries (opinions differ on the actual number). Rather, you have a multitude of smaller blood vessels, capillaries, feeding blood into your heart, and if one or more of your main arteries get blocked, your body will automatically sprout new blood vessels to make up for the reduced flow.

In other words, your body performs its own bypass. According to Cowan, your body is "perfectly capable of bringing the blood to whatever area of the heart it needs, and as long as your capillary network is intact, you will be protected from having a heart attack."

Not surprisingly, the same factors that cause low sympathetic tone also lead to loss of microcirculation. For example, smoking has a corrosive effect on microcirculation, not just in your extremities but also your heart. A high-sugar, low-fat diet, prediabetes and diabetes, and chronic inflammation also reduce microcirculation.

One of the most effective ways to encourage and improve microcirculation is physical movement, so chronic inactivity will also deteriorate your body's ability to maintain healthy microcirculation.

Another highly effective and noninvasive treatment option that will help improve microcirculation to your heart is enhanced external counterpulsation (EECP). It's a Medicare insurance-approved therapy, and studies show EECP alone can relieve about 80% of angina. EECP works by inflating compression cuffs on your thighs and calves that are synchronized with your EKG.

When your heart is in diastole (relaxed), the balloons inflate, forcing blood toward your heart, thereby forcing the growth of new capillaries. It's a really powerful and safe alternative to coronary bypass surgery for most people. Rather than bypassing one or two large arteries, you create thousands of new capillary beds that supply even more blood than the bypassed vessels. To find a provider, visit EECP.com.²⁵

Lactic acid buildup in the heart muscle due to impaired mitochondrial function — In
essence, angina is a symptom of poor mitochondrial function, causing a buildup of
lactic acid that triggers cramps and pain. When this pain and cramping occurs in
your heart, it's called angina. The lactic acid buildup also restricts blood flow and
makes the tissue more toxic.

Eventually, as the lactic acid continues to build up, it eventually starts interfering with the ability of calcium to get into the heart muscle. This in turn renders your heart unable to contract, which is exactly what you see on a stress echo or a nuclear thallium scan.

Simple Steps May Reduce Your Risk

Taking simple steps to change your diet and lifestyle may have a significant impact on your risk for a heart attack. It is important to quit smoking and reduce your alcohol intake to protect your heart. Here are several more strategies to reduce your risk.

- Eat real food You can take control of your health by making small changes to your nutrition plan. A foundational recommendation is to eat real food and limit processed food to no more than 10% of your diet.
- Reduce your sugar intake The average American eats nearly 22 teaspoons of sugar a day, which is one of the most damaging substances you can ingest. Sugar overloads your liver, tricks your body into gaining weight, causes metabolic dysfunction and increases the inflammatory response, leading to heart disease.

Published research also shows that insulin resistance contributes to heart disease and death,²⁶ and cutting out sugar is a crucial step to normalizing your insulin level.

- Reduce stress The Emotional Freedom Techniques, breathing techniques and yoga are all methods that can help reduce your stress level and enjoy better health.
- Get restorative sleep The importance of sleep cannot be overstated.
 Wakefulness is associated with mitochondrial stress. Researchers have found a 24% increase in heart attacks right after the time change in the spring, which demonstrates how fragile the body is to even the smallest changes in sleep patterns.

Women who get less than four hours of sleep per night double the risk of dying from heart disease^{27,28} and adults who sleep less than five hours a night have 50% more coronary calcium, a sign of impending heart disease.²⁹

 Exercise — While exercise is extremely important for every aspect of health, your heart needs the right kind of exercise. High endurance training puts an extraordinary amount of stress on your heart, while focusing on high-intensity interval exercise can help strengthen as well as protect your heart.

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