



Broken Heart Syndrome: Extreme Stress & The Heart

The body's stress response is a normal reaction that usually carries us through crises or difficult times. However, for some people, the response to extreme stress can actually harm our heart health. Medical professionals are becoming increasingly aware of a condition called **broken heart syndrome**, or stress-induced cardiomyopathy, which is often brought on by emotional or physical trauma, and tends to mimic a **heart attack**. Essentially, researchers have found that our hearts really can "break" when we are grieving or experiencing stressful life events.

Read on to learn more about broken heart syndrome, including possible causes, diagnosis, and treatment.

What Is Broken Heart Syndrome?

While broken heart syndrome occurs in both men and women, it is most common in post-menopausal women. The syndrome is not a heart attack, but it produces symptoms similar to one. It typically resolves without lasting damage, and is fatal only in rare cases.

A person experiencing broken heart syndrome may arrive in the emergency room with **heart attack symptoms**, such as chest pain or shortness of breath. However, unlike a heart attack, no **blockages** will be discovered in the arteries that supply blood to the heart, and the main pumping chamber of the heart (the left ventricle) will have an unusual and distinctive shape.

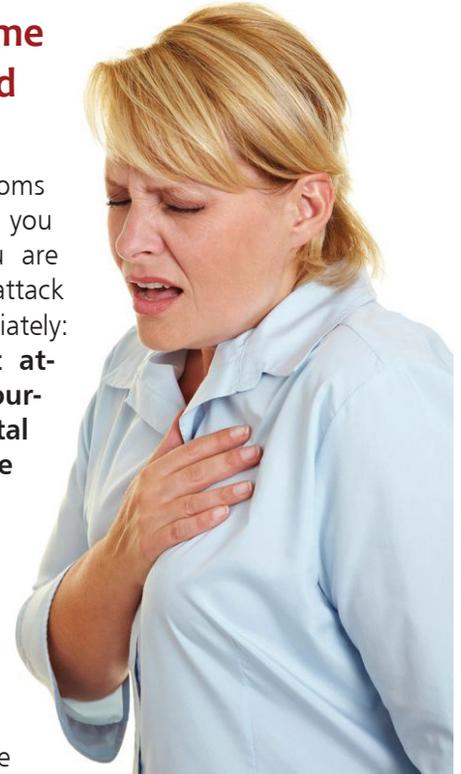
Sometimes broken heart syndrome can be traced to an emotional or physical cause; other times the cause is never known. Researchers believe it can be triggered by forms of stress as varied as a catastrophic medical diagnosis, an acute medical illness, the death of a relative, a serious car accident, or a devastating financial loss. While the syndrome is not well understood, researchers think the left ventricle may be "stunned" and unable to function because of a surge of stress hormones after the patient experiences trauma.

How Is Broken Heart Syndrome Diagnosed and Treated?

If you have symptoms of a heart attack, you should assume you are having a heart attack and respond immediately: **Dial 911. Do not attempt to drive yourself to the hospital or have someone else drive you.**

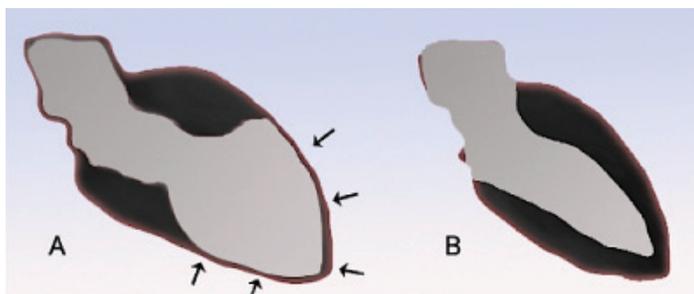
In the ambulance and at the hospital, your medical care team will give you a combination of the following tests to see if your symptoms are heart related:

- An **electrocardiogram**, which measures the electrical activity of the heart and the heart's rhythm
- **Blood tests** to check for cardiac enzymes that indicate damage to the heart muscle
- An **echocardiogram** to take an ultrasound image of the heart
- An **angiogram** to view an x-ray movie of the heart and its blood vessels to check for blockages restricting blood flow



*Broken heart syndrome was first described in the 1990s by Japanese physicians who observed that certain patients with heart attack-like symptoms had a left ventricle shaped like a fishing pot used to trap octopuses, the takotsubo pot. You may hear the condition described as **Takotsubo Cardiomyopathy**.*

	Heart Attack	Broken Heart Syndrome
Symptoms	<ul style="list-style-type: none"> • Chest pressure, tightness • Shortness of breath • Throat tightness • Pain in the arm or back 	<ul style="list-style-type: none"> • Chest pressure, tightness • Shortness of breath • Throat tightness • Pain in the arm or back
Onset	<ul style="list-style-type: none"> • At rest • After unusual exertion (i.e. <i>shoveling heavy snow</i>) 	<ul style="list-style-type: none"> • After emotional distress: • Loss of loved one • Financial distress
Cardiac catheterization shows	<ul style="list-style-type: none"> • A blocked heart artery due to a clot 	<ul style="list-style-type: none"> • Normal heart arteries
Treatment	<ul style="list-style-type: none"> • Immediate angioplasty to open the heart artery 	<ul style="list-style-type: none"> • Medical treatment to aid the recovery of the heart
What to do when symptoms start?	Call 911 immediately to have an ambulance bring you to the Emergency Department	



(A) Schematic representation of Takotsubo Cardiomyopathy
(B) Compared to a normal left ventricle (B).

If your heart's left ventricle has the syndrome's characteristic shape and no blockages are found in the blood vessels, then you will be diagnosed with broken heart syndrome. Treatment primarily consists of an initial recovery period in the hospital and heart **medications** to reduce the stress on the heart. Most patients recover within a few days to a couple of months.

Questions to Ask Your Doctor About Broken Heart Syndrome

- Am I having or did I have a **heart attack**? Have we **definitely ruled out** a heart attack?
- How will I be **treated** for broken heart syndrome?

- How long should I expect my **recovery** to take?
- Is it likely that I could have a **repeat occurrence** in the future?
- Are there **lifestyle changes** that I should make to **manage stress**?

What Should I Do If I Have More Questions?

Ask them. Your first priority is to make sure that you are not having a heart attack. **If you experience signs of a heart attack, dial 911 right away.** Assume first that you may be having a heart attack, which is much more common than broken heart syndrome.

If you have broken heart syndrome, you likely experienced a significant life stressor or physical trauma immediately followed by what may have seemed like a heart attack. Getting answers to questions you have can help you feel less overwhelmed.

We hope you will use SecondsCount.org to learn more about your cardiovascular health and treatment options. SecondsCount.org was developed by the Society for Cardiovascular Angiography and Interventions (SCAI), the medical society for interventional cardiologists.