



*“The heart is a small thing, but (it) desireth great matters.”*

– Francis Quarles, English poet

## Contemplating Matters of the Heart

**February is American Heart Month. With Valentine’s Day serving as the centerpiece, it’s a good time to contemplate matters of the heart.**

It’s well known that loving relationships – whether they are romantic, platonic or familial – promote well-being, and that heartache can affect your physical and mental health. But did you know there is a condition called broken heart syndrome?

According to the American Heart Association, broken heart syndrome can occur even when you are physically fit and don’t have underlying risk factors for heart disease. The syndrome is also called stress-induced cardiomyopathy or takotsubo cardiomyopathy. It was first described in Japan, where the shape of an octopus trap (“tako-tsubo”) looks similar to the heart when the syndrome causes left ventricular ballooning.

Broken heart syndrome can lead to severe, short-term heart muscle failure. In rare cases it can be fatal. However, it is usually treatable. Unlike a heart attack, most people who experience it make a full recovery within weeks rather than months, and there is relatively low risk for recurrence.

Treatment depends on symptom severity. Medications to lower blood pressure or heart rate, or diuretics to reduce water and salt retention, may be prescribed. In some cases, cardiac rehabilitation is recommended. A physical fitness plan and education on fatigue and stress management techniques are also used as a prevention and treatment strategy. (Refer to [WorkCare’s video on Stress Management and Burnout Prevention](#) for tips.)

### Syndrome Detection

Symptoms of broken heart syndrome, such as chest pain and shortness of breath, can mimic those of a heart attack. Arrhythmias (irregular heartbeats) or cardiogenic shock, which occurs when a suddenly weakened heart can’t pump enough blood to meet the body’s needs, may also be experienced.

Women with broken heart syndrome are more likely than men to have sudden, intense [chest pain](#) caused by a surge in stress hormones. The body produces hormones, such as adrenaline and cortisol, in response to emotionally taxing events such as the death of a loved one, physical assault, natural disaster, divorce, abandonment, betrayal or rejection. It can even happen after an unexpected surprise like winning the lottery.

Diagnostic tests for broken heart syndrome may include coronary angiography, which uses dye and special X-rays to view the interior of coronary arteries, electrocardiogram, echocardiography using sound waves and cardiac magnetic resonance imaging.

Diagnostic tests may show dramatic changes in rhythm and blood composition that are typical of a heart attack, but unlike a heart attack, there's no evidence of blocked arteries. Part of the heart temporarily enlarges and doesn't pump well, while the rest of the heart functions normally or with even more forceful contractions. Researchers are just starting to learn the causes and how to diagnose and treat this syndrome, the American Heart Association reports.

## Your Heart and COVID-19

In some respects, the COVID-19 pandemic is a matter of the heart. For example, the SARS-CoV-2 coronavirus and its variants can damage heart muscles and compromise blood flow to the heart and other parts of the body. Lingering post-COVID symptoms may include rapid heart rate or palpitations, dizziness, chest pain and shortness of breath. These symptoms may also occur as a result of dehydration, fatigue or prolonged inactivity due to illness. (Refer to Table 1.)

In addition to physical and mental health effects, the pandemic puts added strain on relationships; some have snapped under the pressure. In some instances, it's a mixed bag. For example, the need for social distance makes it harder to date, but it also allows time

and space to get better acquainted before meeting in person. Some people say COVID has brought them closer to loved ones because they have been forced to spend more time together, nurture their relationships and depend on each other for support.

The American Heart Association recently announced a [\\$10 million research grant initiative](#) to fund research on causes of cardiac, vascular and cerebrovascular complications among COVID-19 patients, and to determine why 10-30 percent of patients are more susceptible to long COVID. Initial research suggests that persistent inflammation in the body may contribute to prolonged symptoms.

"Cardiovascular complications in aggregate have commonly been reported among COVID-19 patients and most often include blood clots, heart inflammation known as myocarditis, disruption of the heart rhythm, heart failure and heart attacks," said Svati H. Shah, M.D., professor of medicine and associate dean for genomics in the division of cardiology at Duke University School of Medicine, Durham, N.C. "Frequently reported symptoms in patients who have effects long after their initial COVID infection have cardiovascular-related aspects including fatigue, chest pain and shortness of breath.

"The patients also report effects on the central nervous system, including both psychological effects such as anxiety and depression, as well as cognitive effects such as confusion and deficits of memory and concentration. We have a lot still to learn through rigorous research to understand long COVID," Dr Shah said.

**Table 1:** When to get medical care for heart symptoms after having COVID-19

Symptom	Call 911	Call your doctor
<b>Shortness of breath</b>	<ul style="list-style-type: none"> <li>Oxygen saturation under 92%</li> <li>Bluish lips or face</li> <li>Sudden onset</li> </ul>	<ul style="list-style-type: none"> <li>Worse when lying down</li> <li>Worse on exertion</li> <li>Accompanied by fatigue or swollen ankles</li> </ul>
<b>Chest pain</b>	<ul style="list-style-type: none"> <li>Severe pain</li> <li>Accompanied by nausea, shortness of breath, lightheadedness or sweating</li> <li>Sudden pain, especially with shortness of breath lasting more than 5 minutes</li> </ul>	<ul style="list-style-type: none"> <li>Persistent, non-severe pain</li> <li>Increasing in frequency</li> <li>New pain that resolves in 15 minutes (otherwise call 911)</li> <li>New exertional pain relieved by rest</li> </ul>

Source: Johns Hopkins Medicine: [Heart Problems after COVID-19](#)