

# STRESS AND THE HEART: LESSONS FROM THE PANDEMIC...

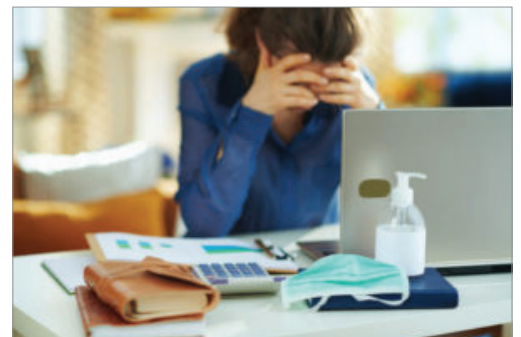


**T**he effects of COVID-19 have been extensive, with closely thirty million confirmed cases and more than 500,000 deaths in the US alone. COVID-19 has caused additional impacts on healthcare; for example, **patients have delayed seeking care** for serious symptoms over fears of exposure to COVID -19. But the consequences of COVID-19 have reached beyond healthcare alone, with daily impacts on our financial, social, and emotional well-being.

As we attempt to cope and settle into this new normal, we will learn about the long-term effects of these hardships. Doctors have already begun to study the effects of COVID-related stress and anxiety on people around the world.

## Physical effects of stress

Stress can have real physical effects on the body, and it has been linked to a wide range of health issues. Stress directly activates our sympathetic nervous system, initiating a fight-or-flight response that can elevate blood pressure and blood sugar. Though potentially useful in the short term from an evolutionary standpoint, stress can worsen hypertension and diabetes when it occurs chronically. Stress can disrupt our sleep, and can lead us to make unhealthy food choices, as we seek comfort foods or abandon portion control.





A recent study suggests that stress due to the pandemic may already be affecting our heart health.

## The link between stress and heart health

Stress cardiomyopathy, also called **Takotsubo cardiomyopathy** and broken-heart syndrome, is a cardiac disorder characterized by a sudden onset of chest pain and heart dysfunction that mimics a heart attack. But, in contrast with what is seen during a heart attack, doctors are unable to find evidence of a blood clot or abnormalities with cardiac blood flow.

The typical stress cardiomyopathy patients are post-menopausal women experiencing sudden onset of chest pain and shortness of breath. The link between stress and stress cardiomyopathy is well documented; patients with stress cardiomyopathy often experience emotional or physical stress in the week preceding their illness. The exact mechanism of this reaction is not clearly understood, but researchers have found changes in blood flow to the brain and in signaling of stress-related hormones.

Emotional triggers of stress cardiomyopathy include death of a spouse or family member, divorce or interpersonal conflict, and natural disasters such as earthquakes and floods. It stands to reason that living with the chronic stress of a global pandemic could also trigger this syndrome.

## Pandemic-related stress is already affecting heart health

In the **study** published in *JAMA Network Open*, they attempted to measure the effect of COVID-19-related stress on our health by looking at the prevalence of stress cardiomyopathy during the pandemic. Researchers compared the incidence of stress cardiomyopathy during the COVID-19 pandemic (March 1 to April 30, 2020) to

the incidence of stress cardiomyopathy during the three prior periods (in 2018, 2019, and earlier in 2020). Importantly, all of the patients included in the study tested negative for COVID-19.

Researchers found that there was a significant rise in stress cardiomyopathy during the COVID-19 period, with stress cardiomyopathy occurring more than four times as often as usual during March and April 2020.

Fortunately, heart function typically recovers over one to two weeks in people with stress cardiomyopathy, and prognosis is generally good. However, affected patients do have an increased risk of recurrence.

## Take steps to manage stress

This study is a cautionary tale regarding the impact of stress. It serves as a good reminder that we should all strive to minimize stress, even in these trying times, and improve how we handle it. Some **practical tips** for managing stress including choosing healthy foods, exercising regularly, getting enough sleep, and staying connected with friends and family.

## Related Information:

***Stress Management: Enhance your well-being by reducing...***

