

Studies tie stress from storms, war to heart risks

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Stress does bad things to the heart. New studies have found higher rates of cardiac problems in veterans with post-traumatic stress disorder, New Orleans residents six years after Hurricane Katrina and Greeks struggling through that country's financial turmoil.

Disasters and prolonged stress can raise "fight or flight" hormones that affect blood pressure, blood sugar and other things in ways that make [heart](#) trouble more likely, doctors say. They also provoke anger and helplessness and spur heart-harming behaviors like eating or drinking too much.

"We're starting to connect emotions with cardiovascular risk markers" and the new research adds evidence of a link, said Dr. Nieca Goldberg, a cardiologist at NYU Langone Medical Center and an [American Heart Association](#) spokeswoman.

She had no role in the studies, which were discussed Sunday at an American College of Cardiology conference in San Francisco.

The largest, involving 207,954 veterans in California and Nevada ages 46 to 74, compared those with PTSD to those without it. They were free of major heart disease and diabetes when researchers checked their Veterans Administration medical records from 2009 and 2010.

Checked again about two years later, 35 percent of those with PTSD but only 19 percent of those without it had developed [insulin resistance](#),

which can lead to diabetes and hardening of the arteries.

Doctors also saw higher rates of metabolic syndrome—a collection of [heart disease risk](#) factors that include high body fat, cholesterol, blood pressure and [blood sugar levels](#). About 53 percent of veterans with PTSD but only 37 percent of those without it had several of these symptoms.

The numbers are estimates and are not as important as the trend—more heart risk with more stress, said one study leader, Dr. Ramin Ebrahimi, a cardiologist at the Greater Los Angeles VA Medical Center and a professor at UCLA. It shows that PTSD can cause physical symptoms, not just the mental ones commonly associated with it.

"Twenty or 30 years ago PTSD was a term reserved for combat veterans. We have come to realize now that PTSD is actually a much more common disorder and it can happen in veterans who did not undergo combat but had a very traumatic experience" such as losing a friend, he said.

That goes for others who suffer trauma such as being raped, robbed at gunpoint or in a serious accident, he said. Nearly 8 million Americans have PTSD, the National Institute of Mental Health estimates.

They include survivors of [Hurricane Katrina](#). Tulane Medical Center doctors led a study of their hospital's patients that suggests heart attack incidence is three times higher in New Orleans than it was in the two years before the 2005 storm.

Heart attacks made up 2.4 percent of admissions in the six years after the storm compared to just .7 percent before it. The post-storm patients were more likely to be unemployed or uninsured, to smoke, and to have depression, anxiety or high cholesterol, researchers found.

A third study found that heart attacks rose sharply in the Messinia area of southwestern Greece since January 2008, the start of that country's financial crisis. Researchers compared medical records of more than 22,000 patients admitted to the General Hospital of Kalamata—the only hospital with a cardiology department in the region.

There were 1,084 heart attacks in the four years after the crisis began compared to 841 in the four years before it, even though the population and its demographics remained the same.

Heart attack incidence rose 40 percent among women, who have higher unemployment rates than men and tend to be more responsible for child care—a double burden of stress, said the lead researcher, Dr. Emmanouil Makaris.

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