

Extreme stress reactions to terrorist attacks associated with subsequent heart problems

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Individuals who experienced severe stress-related symptoms in response to the terrorist attacks on 9/11 appear more likely to have been diagnosed with heart problems over the following three years, according to a report in the January issue of Archives of General Psychiatry, one of the JAMA/Archives journals.

“Extremely stressful events may precipitate biological processes that increase one’s risk of developing cardiovascular ailments,” the authors write as background information in the article. “While acute stress may trigger immediate potentially lethal cardiovascular responses, acute, subacute and chronic stress can gradually increase cardiovascular risk through neurohormonal arousal. This physiologic reactivity may be easily rekindled by trauma reminders, leaving individuals vulnerable to the detrimental effects of arousal over time.”

E. Alison Holman, F.N.P., Ph.D., of the University of California, Irvine, and colleagues studied a national sample of 2,729 adults. Of these, 95 percent (2,592) had completed an online health assessment before the terrorist attacks. About nine to 14 days following the attacks, they responded to a Web-based survey regarding their acute stress responses, such as anxiety, dissociative symptoms (feeling detached from oneself or the world) or a re-experiencing of the event. Participants were then surveyed yearly about their health for three years.

Before the attacks, 21.5 percent of the participants had been diagnosed with a heart ailment; three years after the attacks, the rate had increased

to 30.5 percent. “Acute stress responses to the 9/11 attacks were associated with a 53 percent increased incidence of cardiovascular ailments over the three subsequent years, even after adjusting for pre-9/11 cardiovascular and mental health status, degree of exposure to the attacks, cardiovascular risk factors (i.e. smoking, body mass index and number of endocrine ailments), total number of physical health ailments, somatization [the conversion of psychological symptoms into physical symptoms] and demographics,” the authors write.

Participants who reported high levels of acute stress immediately after the attacks were about twice as likely to report being diagnosed with hypertension and about three times as likely to report a diagnosis of heart problems over the following two years. “Among individuals reporting ongoing worry about terrorism post-9/11, high 9/11–related acute stress symptoms predicted increased risk of physician-diagnosed heart problems two to three years following the attacks,” the authors write.

Source: JAMA and Archives Journals

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