Teenage stress has implications for adult health

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Most of us remember our teenage years with a mix of fondness and relief. Fondness for the good memories, and relief that all that teenage stress, angst and drama — first love, gossip, SATs, fights with parents — is behind us.

Or is it? It turns out, say UCLA researchers, that even stressful times from the teenage years exact a physical toll that could have implications for health during adulthood.

Andrew J. Fuligni, a professor of psychiatry at the Semel Institute for Neuroscience and Human Behavior at UCLA, and colleagues report that in a study of otherwise healthy, normal teens who self-reported various negative interpersonal interactions, researchers found that a greater frequency of such stress was associated with higher levels of an inflammatory marker called C-reactive protein, or CRP. CRP has been identified as an indicator for the later development of cardiovascular disease (CVD).

The study will appear in an upcoming issue of the journal Psychosomatic Medicine and is currently available online (subscription only).

"Although most research on stress and inflammation has focused upon adulthood, these results show that such links can occur as early as the teenage years, even among a healthy sample of young men and women," Fuligni said. "That suggests that alterations in the biological substrates that initiate CVD begin before adulthood."

Those everyday kinds of stressors, such as a fight with a parent or peer, are among the most frequent and powerful predictors of psychological distress among individuals, he said. That led the researchers to wonder: If stress could have a powerful psychological influence, could it have a physiological influence as well?

The study looked at a total of 69 adolescents, average age 17, from Latin American and European backgrounds, who completed a daily diary checklist each night for 14 days. In it, they reported any experiences of negative interpersonal interaction with family, peers or school personnel — for example, conflicts with family and friends, peer harassment or any kind of punishment by parents or teachers. Blood samples were obtained an average of eight months later and assayed for circulating levels of the CRP protein; the research protocol took into account such factors as socioeconomic status, major stressful life events and being overly sensitive to rejection or daily psychological distress.

The researchers found that daily interpersonal stress experienced during the high school years was associated with elevated levels of inflammation, as measured by higher levels of CRP, even among normal, healthy teens.

"Our findings are consistent with the emerging body of evidence that points to the link between stress and increased inflammation, which places individuals at risk for the later development of cardiovascular disease," said Fuligni, who is also a member of the UCLA Cousins Center for Psychoneuroimmunology and the UCLA Center for Culture and Health.

The results are also interesting because they suggest that the association of interpersonal stress with inflammation exists regardless of individual teens' psychological appraisal of stressful experiences or any tendency to be particularly sensitive to social rejection, he said.

Fuligni suggests the results of this research show the importance of focusing on actual daily stressful experiences when examining the implications of psychological and social factors for the development of risk for CVD during the teenage years.

"Although the frequency of some of these experiences may be low, they could have a significant impact upon long-term physical health during adulthood," Fulgini said.

Source: University of California - Los Angeles