

Stress Hurts Our Minds and Our Bodies

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Stress isn't just "in our heads." It can impact our physical well-being too. According to psychological scientist **Elissa Epel** of the University of California, San Francisco, chronic stress can affect what we eat, how our bodies process insulin, and even the health of individual cells in our bodies.

Epel's research has shown that a serious consequence of chronic stress is premature aging. Previous research determined that telomeres, which are protective DNA sequences found at the ends of chromosomes, deteriorate as people age. In her study, Epel found that if female caregivers suffer chronic stress, they could experience telomere deterioration and premature aging even if they report that they cope well with stress.

Long-term stress can also have real, detrimental effects on diet. Epel says that stress causes our bodies to release cortisol, a hormone that stimulates the appetite and makes us crave high-fat foods that have a calming effect on our brains. "Stress is kind of a double-edged sword," Epel said in an interview with Beet.TV. "In the short run, it can make you feel better. In the long run, it can cause problems: abdominal fat, diabetes, [and] heart disease."

As for how we could reverse all these detrimental effects of stress, Epel's lab is studying whether mindfulness training (e.g., being more aware of present sensory experiences) could help people develop healthier strategies for managing chronic stress. In a recent proof-of-concept study, Epel and her colleagues showed that the training reduced the cortisol response in obese women and helped them to maintain a steady body weight.

Epel is a featured speaker in the Biological Beings in Social Context cross-cutting theme program at the 24th APS Annual Convention in Chicago May 24-27, 2012.