



News Release

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Stress Is Killing Us, Sapolsky Tells Century Audience

Stanford University Prof. Robert Sapolsky told a Century College audience on Oct. 13 that heart disease, high blood pressure and cancer – diseases marked by a slow accumulation of damage – can be caused or made far worse by stress.

“Now that we are not filling our nights with worry about leprosy and tuberculosis, we spend 75 years having our bodies go to hell on us,” said Sapolsky. “The central question is, why do some last to age 50 and others last to 85?”

Sapolsky, who is both a biologist and a neuroscientist, said some of the reasons for a person’s longevity have to do with psychological makeup and social status. Knocked out of balance by things that happen to us, we send elevated stress hormones into our blood stream. “You do this chronically, and you are going to get sick,” Sapolsky said. “Most of us drop dead from stress-related disease.”

Sapolsky said sustained stress shuts down digestion, sex drive and even growth. He related a story about J.M. Barrie, the author of *Peter Pan*, who was so traumatized by his beloved older brother's death and his mother's inability to relate to him that he stopped growing when he reached 4-foot-10 inches. "When there is horrific psychological abuse, there is zero growth hormone in the blood stream," said Sapolsky. "Take children out of that setting and they start growing again. There is an amazing capacity for the system to recover."

Type A personalities whose lives are marked by "joyless striving" are more likely to get stress-related heart disease. He said the San Francisco doctor who first identified Type A personalities started looking into the disorder after having to reupholster the cushions of his waiting-room chairs once a month due to patients squirming and fidgeting as they waited to be seen. The patients had so many characteristics in common, he called them Type A.

Sapolsky said his decades of research dealing with the baboons of Kenya shows that the high-ranking apes experience more stress than the low-ranking ones.

Stress also decreases ovulation in women and testosterone production in men. Marines in their first week of basic training are so stressed that one study showed they had the testosterone levels of "Vatican choir boys."

Sapolsky said chronic stress causes physical changes in the brain. It also depletes the hormone that makes you able to feel pleasure. Stress hormones in a pregnant woman can cross the placenta and affect the fetus. "Environment begins at conception, not at birth," he said. "Prenatal stress is a very real phenomenon." Deprived children can experience elevated stress hormones that impair them neurologically by age five.

Research shows that people who have a network of friends, a sense of control, a variety of interests and the ability to predict circumstances are better able to cope with stress.

“Nothing is irreversible,” said Sapolsky. “The adult brain does make new neurons and it is possible to recover. But the longer you suffer from chronic stress, the harder it is to reverse.”

Sapolsky’s appearance was part of Century College’s ongoing Speaker Series that brings nationally-known scholars to campus several times a year.