

# Married people have lower levels of stress hormone

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Credit: Carnegie Mellon University

Studies have suggested that married people are healthier than those who are single, divorced or widowed. A new Carnegie Mellon University study provides the first biological evidence to explain how marriage impacts health.

Published in *Psychoneuroendocrinology*, the researchers found that

married individuals had lower levels of the [stress hormone cortisol](#) than those who never married or were previously married. These findings support the belief that unmarried people face more [psychological stress](#) than married individuals. Prolonged stress is associated with increased levels of cortisol which can interfere with the body's ability to regulate inflammation, which in turn promotes the development and progression of many diseases.

"It's is exciting to discover a physiological pathway that may explain how relationships influence health and disease," said Brian Chin, a Ph.D. student in the Dietrich College of Humanities and Social Sciences' Department of Psychology.

Over three non-consecutive days, the researchers collected saliva samples from 572 healthy adults aged 21-55. Multiple samples were taken during each 24-hour period and tested for cortisol.

The results showed that the married participants had lower cortisol levels than the never married or previously [married people](#) across the three day period. The researchers also compared each person's daily cortisol rhythm—typically, cortisol levels peak when a person wakes up and decline during the day. Those who were married showed a faster decline, a pattern that has been associated with less heart disease, and longer survival among cancer patients.

"These data provide important insight into the way in which our intimate social relationships can get under the skin to influence our health," said laboratory director and co-author Sheldon Cohen, the Robert E. Doherty University Professor of Psychology.

**More information:** Brian Chin et al. Marital status as a predictor of diurnal salivary cortisol levels and slopes in a community sample of healthy adults, *Psychoneuroendocrinology* (2017). [DOI:](#)

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