

# The relationship between humans and stress? It's complicated

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The first national study to examine age patterns in daily stress across a 20-year time span showed that for most Americans, stress decreases as we age.

Good news, right? It's actually more complicated than that.

A recent study co-authored by Eric Cerino, an assistant professor in the Department of Psychological Sciences, examined the daily stressors American adults experience and how their emotional responses to [stress](#) change as the participants grow older. They are doing this work in the context of stress as its own process—how stress can age our bodies more quickly and influence our health overall.

The study, published in *Developmental Psychology* with David Almeida, professor of human development and [family studies](#) at Penn State, as lead author, is based on data from the National Study of Daily Experiences (NSDE), a survey of American adults between 22 and 77 years old that started in 1996. The good news is that stress and its effects on humans does decrease over time, both because of fewer stressors but also because all those decades of dealing with stress equip people to deal with it better.

The reported decrease is likely associated with people moving past the typical stressful life experiences—starting a new job or relationship, parenting [young children](#), beginning a career, money worries—as much as gaining better coping mechanisms and a different outlook on life.

"As we grow older and take stock of the time we have left in life, our priorities, [social roles](#) and motivations in life change and may result in less stress due to prioritizing the good in life and trying to avoid the unnecessary sources of [daily stress](#)," Cerino said. "As we grow older, we may be getting better at regulating emotions and avoiding potential stressors."

## **What to know and what to do**

The NSDE is a unique dataset; the study participants have been sharing

information about their lives for the last 20 years. Every few years, each person answers a series of questions at the end of every day for eight consecutive days. The researchers asked how they spent their days, their mood, physical symptoms, their interactions and other questions about the type of stressful experiences they had throughout the day. This method allowed the researchers to dive deep into the different factors that caused stress, how people reacted mentally, physically and emotionally to those stressors and how those reactions changed through the years as the 22-year-old recent [college graduate](#) became a 32-year-old working parent and the 50-year-old with kids preparing to go to college became a 60-year-old empty nester preparing for retirement.

The study showed that exposure to daily stress decreases as people grow older, and their negative emotional responses to daily stress also decrease until the mid-50s. They didn't explicitly test reasons for those changes, but Cerino said they had a hypothesis: New social roles that people are more likely to take on earlier in adulthood can be quite stressful. It can be a lot, especially for those who are juggling multiple social roles at once that require them to figure out how to cope with new daily stressors they hadn't dealt with before.

"This study helps us understand what daily stress looks like as we grow older," he said. "It is encouraging to see declines in exposure to stress as we grow older, but it is also important to recognize how our emotional responses to stress change as we age. Given prior research from our team and others suggesting that it isn't in the number of daily stressors you experience but your emotional responses to those stressors that can raise the risk of health challenges, identifying ways to cope with these daily stressors can help to contribute toward healthy aging outcomes."

## **Stress as the 'speedometer of life'**

Stress doesn't exactly make your life go faster—though the minutes

ticking down toward an important deadline may feel that way. But chronic stress can shorten your life. Cerino said decades of research have shown that stress causes wear and tear on the body, and 60 years ago researcher Hans Selye called stress the "speedometer of life." Researchers since have looked deeper into the speedometer of a person's lifespan.

"Biological responses elicited by stressors in our environment include the release and activation of various stress hormones," he said. "Chronic exposure to these stress hormones can lead to accumulated wear and tear on the body, which can contribute to increased risk of illness and mortality. Research from our team and others suggest that it isn't in the number of [daily stressors](#) you experience, but your emotional response to those [stressors](#) that can raise your risk of compromised cognitive health, cardiovascular disease, increase inflammation and contribute to mortality risk."

With this background, the next wave of data collection from the NSDE, of which Cerino is a co-investigator, may be uniquely enlightening. It will be the first since the start of the COVID-19 pandemic. This idea also points to real concerns about developing healthy habits to reduce our stress, though, Cerino noted, eating a balanced diet and exercising are not enough. (Although they are good—do them if you can.)

Past research culled from the NSDE demonstrated that minoritized or historically marginalized adults tend to have higher amounts of negative [emotional responses](#) to daily stress. Systemic barriers to accessing healthy coping mechanisms can establish disparities and increase stress. Society and the field of psychology need to prioritize ways to provide resources that promote health equity and support healthy aging.

## **What comes next**

Cerino's research will continue to build on this study. The team's next step is examining how other aspects of people's daily lives change throughout adulthood; his current project examines ways in which perceived control over daily stress changes as people age.

"Alongside the undergraduate and graduate students in our Healthy Aging Lab at NAU, we intend to examine how perceived control over our daily stress may serve as a psychosocial resource to help promote cognitive, physical and mental health outcomes across one's lifespan," he said.

**More information:** David M. Almeida et al, Longitudinal change in daily stress across 20 years of adulthood: Results from the national study of daily experiences, *Developmental Psychology* (2022). [DOI: 10.1037/dev0001469](https://doi.org/10.1037/dev0001469)

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