

# Family caregiving may not harm health of caregivers after all

July 13 2020

---



Credit: CC0 Public Domain

For decades, family caregiving has been thought to create a type of chronic stress that may lead to significant health risks or even death, alarming potential caregivers and presenting a guilt-ridden obstacle for

those needing help. Now, Johns Hopkins researchers have studied people as they transitioned to becoming caregivers for loved ones. Beyond the normal increases from aging, they found that caregivers didn't have significantly greater inflammation over a nine-year period. Such increases would have indicated that chronic stress from caregiving may have harmed their health.

A report on the findings was published online June 24 by the *Proceedings of the National Academy of Sciences* of the United States of America.

"The main takeaway point is that caregiving, while stressful in some situations, is not associated with clinically meaningful increases in inflammation," says David Roth, Ph.D., professor of medicine at the Johns Hopkins University School of Medicine, director of the Johns Hopkins Center on Aging and Health, and study co-author. "Our main goal for our research was to challenge past study findings, address potential caregivers' concerns about the toll on their [health](#), and provide hope and relief to people needing or wanting to help."

"Family caregiving," Roth says, "appears to have minimal effects on physical health for most caregivers, and may even be associated with some health benefits similar to those sometimes attributed to volunteerism, such as a lower mortality rate."

As the number of people engaged in [family](#) caregiving grows, this news should come as a relief to those worried about a burden on their health.

In the United States alone, it is estimated that at least 17 million and perhaps as many as 40 million people are informal or dedicated family caregivers for older adults. Many assert that family caregiving is a mutually beneficial arrangement, but for some the extra stress may feel like a significant burden that may impact their health.

To investigate whether caregiving harms caregivers, the Johns Hopkins Medicine Transition to Family Caregiving study team examined data on 239 participants in the University of Alabama at Birmingham's ongoing Reasons for Geographic and Racial Differences in Stroke project who became caregivers. They were age 45 or older, and were compared to matched noncaregiving controls who were also assessed over the same time period. The controls were matched for seven factors: age + 5 years, sex, race, education level, marital status, self-rated health and self-reported history of serious cardiovascular disease. Of the caregivers and controls, 65% of each were women. The researchers looked at changes over time on six inflammation biomarkers often associated with loneliness, depression, suppressed immunity, cancer and increased mortality. The biomarkers included high sensitivity C reactive protein (CRP), D-dimer, tumor necrosis factor-alpha receptor 1 (TNFR1), and interleukin (IL)-2 IL-10 and IL-6. Researchers examined biomarkers in blood samples.

All participants were free of caregiving activities prior to the first blood sample taken. Participants completed a baseline interview and an initial in-home assessment. Blood samples were taken at that time. About nine years later, each participant was interviewed again, and trained examiners conducted another in-home assessment, at which time phlebotomists gathered updated urine and blood samples.

The Johns Hopkins Medicine Transition to Family Caregiving study team found general increases in inflammation biomarker levels over a nine-year period across both caregivers and noncaregiving controls, such as would be found in normal aging, but caregivers did not show greater elevations over time compared to the controls. Of the six biomarkers examined, only TNFR1 showed a significantly greater increase, of 0.14 standard deviation units among caregivers compared to controls. The researchers interpreted these findings as being consistent with other population-based studies that suggest minimal systemic inflammation in

response to chronic caregiving stress.

"This study is one of the first population-based longitudinal studies to capture data on biomarkers of inflammation from individuals before and after they took on family caregiving responsibilities," says Roth. The researchers say this is an improvement over previous "convenience sample" studies, which surveyed small amounts of people who were simply available—and were therefore vulnerable to report bias. By contrast, population health studies more accurately reflect a large and diverse group of people.

**More information:** David L. Roth et al, The transition to family caregiving and its effect on biomarkers of inflammation, *Proceedings of the National Academy of Sciences* (2020). [DOI: 10.1073/pnas.2000792117](https://doi.org/10.1073/pnas.2000792117)

Provided by Johns Hopkins University School of Medicine

Citation: Family caregiving may not harm health of caregivers after all (2020, July 13) retrieved 26 April 2024 from

<https://medicalxpress.com/news/2020-07-family-caregiving-health-caregivers.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--