

Stress and Inflammation Explain Half of the Mortality Gap Between Black and White Adults

A Washington University study adds to a growing body of research supporting the “weathering” of marginalized groups.

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[Stress](#) and [inflammation](#) may explain why Black people lead sicker lives and die younger than white people in the United States, according to a study from Washington University in St. Louis.

“The findings underscore the need for policies that address structural racism, alongside treatments that reduce inflammation and limit stress exposure to reduce mortality disparities,” wrote the study’s authors.

[Published by the Journal of the American Medical Association Network Open](#), the study followed about 1,500 late middle-aged adults in the St. Louis metropolitan area. The longitudinal study spanned nearly 20 years and included retrospective reports from participants, enabling researchers to develop a “cumulative stress index.”

Inflammation was measured through common biomarkers in blood samples and lifetime cumulative stress through various self-reported surveys. Childhood maltreatment, adult trauma, stressful life events, discrimination and socioeconomic status were factors assessed when measuring cumulative stress.

The study found that Black Americans experienced more stress and inflammation and lived shorter lives than their white peers. This lifelong stress and later-in-life inflammation explained about half of the mortality gap between Black and white people.

“Over time, continued chronic exposure to stress leads to dysregulation and earlier breakdown of some of the biological systems in the human body,” said lead author Isaiah Spears, a graduate

student, [in an interview with Washington University's Newsroom](#).

This finding adds to a body of research supporting the weathering hypothesis, a framework that describes how systemic oppression and socioeconomic disadvantages subject members of marginalized communities to chronic stress, eventually damaging their physical health and life expectancy.

Arline T. Geronimus, PhD, a public health researcher and professor at the University of Michigan, coined the term. When asked about the present study out of Washington University, Geronimus said the data likely show an undercount, noting that the age span between 35 and 60 is the most stressful for marginalized communities.

“The most weathered have already died,” Geronimus said in [an interview with the Washington Post](#).

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