

# High levels of chronic stress linked to high blood pressure in African-Americans

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African Americans reporting high levels of chronic stress tended to develop high blood pressure, or hypertension, more often than those who reported low stress levels, according to new research published in the *Journal of the American Heart Association*, the open access journal of the American Heart Association.

The researchers state that [psychosocial stress](#) is involved in the development of [hypertension](#) and note that African Americans experience greater exposure to specific chronic [stress](#) factors such as discrimination and low socioeconomic status. African Americans also report higher overall stress levels compared to whites.

"Given the disproportionately high burden of hypertension in African Americans, determining if chronic stress increases the risk of hypertension in this population is an important question that could guide prevention strategies," said lead study author Tanya Spruill, Ph.D., an associate professor in the departments of population health and medicine at NYU School of Medicine.

Analyzing the data of more than 1,800 African Americans without hypertension who participated in the Jackson Heart Study, researchers examined the potential association between chronic stress and hypertension. During the almost 13-year study period, three study visits were conducted that each included in-home interviews and clinic exams where blood pressure was measured. Ratings of perceived stress were collected during annual follow-up telephone assessments, and

researchers categorized participants into groups who reported low, moderate or high chronic stress.

They found that over roughly seven years, African Americans who reported high stress levels over time had a 22% increased risk of developing [high blood pressure](#), compared with people who reported sustained low stress levels. This association was independent of sociodemographic factors, traditional hypertension risk factors, health behaviors and baseline stress levels. This suggests chronic stress may, over time, have a [negative impact](#) on cardiovascular health, particularly hypertension.

"Over the study follow-up period, almost half of the participants developed hypertension," said Spruill. "This highlights the need for new hypertension prevention strategies for African Americans. Lifestyle change is effective, however, it can be challenging to achieve. Developing culturally sensitive stress management interventions may support primary prevention of hypertension and reduce subsequent cardiovascular risk among African Americans."

"Because this is an observational study, we interpret the findings cautiously. However, our results suggest that evaluating [chronic stress](#) over time rather than at a single occasion can help identify those at greatest risk. We believe intervention studies are needed to determine if reducing stress among African Americans can reduce the risk of developing hypertension. This could have a significant impact on cardiovascular health outcomes and disparities." Spruill said.

Provided by American Heart Association

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