

# Sickle cell trait in African-Americans associated with increased kidney disease risk, new research finds

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African-Americans carrying a genetic sickle cell trait face up to a two-fold risk increase for chronic kidney disease, according to a paper published today in the *Journal of the American Medical Association*.

The findings, which included data from nearly 16,000 people, may reverse current thinking on sickle cell trait – or SCT – a condition long considered benign. In practice, they may help flag [kidney disease](#) earlier, spur research into possible links between SCT and other common diseases, and ultimately improve public health.

Dr. Rakhi Naik, Johns Hopkins University assistant professor of medicine and the paper's first author, said she wanted to investigate whether consequences exist to having SCT.

"It's generally under-studied. There's conflicting information and scant evidence out there about the implications of (sickle cell) trait," she said.

"There have been national pushes for screening in many different contexts but really, not much is known about sickle cell trait. And as physicians, we don't know specifically what to do with that screening information."

People with SCT inherited a [sickle cell gene](#) copy from one parent. They usually don't present disease symptoms. In contrast, those who suffer from [sickle cell disease](#) received gene copies from both parents.

About 1 in 12 African-Americans has SCT, as do about 300 million people worldwide. Though it's most prevalent in people of African descent, sickle cell trait is also found in populations in the Middle East and India, Naik said.

Dr. James Wilson, University of Mississippi School of Medicine professor of physiology and a co-senior author on the paper, said the findings are scientifically impactful but shouldn't cause public alarm.

"The overall message for people with [sickle cell trait](#) is that they still are healthy people. They are at a modestly increased risk for [chronic kidney disease](#)."

**More information:** "Association of Sickle Cell Trait With Chronic Kidney Disease and Albuminuria in African Americans," *JAMA*. Published online November 13, 2014. [DOI: 10.1001/jama.2014.15063](#)

Provided by University of North Carolina School of Medicine

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