

## Americans born in the South may have a higher risk of dying from stroke as adults

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The "stroke belt" has a tight hold. People born in the Southern stroke belt have a higher risk of dying from stroke as adults, even if they later move away, compared to people who were born in other parts of the country. The research is published in the December 1, 2009, print issue of *Neurology*, the medical journal of the American Academy of Neurology. People who live in the stroke belt in adulthood also had elevated risk of dying from stroke, even if they were not born there.

For the study, researchers examined information from the 1980, 1990 and 2000 US national death records for people age 30 to 80 who were born and lived in 49 US states. [Stroke](#) death rates were calculated by linking this information to US census information. The stroke belt was defined as seven states: North Carolina, South Carolina, Georgia, Tennessee, Arkansas, Mississippi and Alabama.

The study looked at four groups of people: those who were born and lived in the stroke belt as adults, people born in the stroke belt but who did not live there as adults, those born outside the stroke belt but who lived there as adults and those who were not born or lived in the stroke belt.

The study found that those who were born in the stroke belt and then moved away had a higher risk of death caused by stroke than those who were born outside the region and still lived outside the region as adults. The same was true with those who were born elsewhere but later moved to the stroke belt. At the highest risk were those who were both born in

the stroke belt and lived there as adults.

For example, both [Caucasians](#) and African-Americans who were born and lived in the stroke belt as adults had a 34 percent higher risk of dying from stroke in 2000 compared to people of the same gender, age, and race who were born and lived outside of the stroke belt in the same year.

The rate of death related to stroke was 74 per 100,000 for people who were born in the stroke belt and lived there in the year 2000, but only 47 per 100,000 for people who were neither born in the stroke belt nor lived there in the year 2000, although this inequality partially reflects differences in age and race.

"Our results cannot pinpoint a specific explanation, but they are consistent with other research suggesting that the roots of stroke risk begin in childhood or even infancy. Efforts to reduce the incidence of fatal stroke may need to consider how underlying physiologic changes accumulate from early life. It is possible that where one lives affects stroke risk through socioeconomic conditions, social stressors, environmental factors, or access to preventive medical care," said study author M. Maria Glymour, ScD, with Harvard School of Public Health in Boston.

"Many important behaviors such as diet, physical activity, and smoking are shaped by childhood social conditions. Future long-term national studies with detailed information on when people moved are needed to help show whether those who move may have different patterns of risk factors and also identify more precisely at what point in life stroke risk begins to build. This will help us understand how to reduce stroke for people living in every region of the country," Glymour said.

Source: American Academy of Neurology ([news](#) : [web](#))

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