

What is the stroke belt?

The stroke belt is an area of the southeastern US where people are much more likely to die of stroke than in the rest of the country. People in the stroke belt have, on average, a 50% higher risk of dying from stroke than people who live in other regions.¹ This trend was first noticed in the 1950s; since then the specific states have changed, but the general area has remained the same.

Some researchers have called North Carolina, South Carolina, and Georgia the "buckle" of the stroke belt: for some age groups in these states, death rates from stroke are twice as high as in the rest of the nation.²



Source: National Heart, Lung, and Blood Institute

The Stroke Belt States

Why is the stroke rate so much higher in certain areas?

Many reasons for the existence of the stroke belt have been proposed, but so far none of these theories have been able to completely explain it.³ It is likely that the stroke belt is the result of a combination of genes and lifestyle factors such as smoking, lack of exercise, and diets high in saturated fat. This leads to higher rates of stroke risk factors (such as [high blood pressure](#)) and therefore strokes. It seems that the high death rates from stroke in the stroke belt are because people in these areas are more likely to have a stroke, not because they receive worse treatment.

It has long been thought that control of high blood pressure, one of the strongest risk factors for stroke, could be the reason the stroke belt exists. People in this region might be more likely to receive less treatment or have their blood pressure under control. However, a recent large study has cast doubt on parts of the high blood pressure theory. The REGARDS trial looked at

nearly 12,000 patients (half were women) and found that in both African Americans and whites, awareness of high blood pressure in the stroke belt was the same as in other regions, and the stroke belt had better treatment and control of blood pressure.⁴ High blood pressure is more common in the south, however, (especially in African-American women

⁵) and this likely contributes to the higher stroke rates in the region.

The effects of the stroke belt on a person's risk may happen mostly in childhood: one study looked at 18,000 people (56% were women) and compared those who had lived in the stroke belt in childhood with those who had never lived there. They found that living in the stroke belt as a child was associated with a higher risk of stroke (30% higher in women), even if the person later moved away.⁶ This risk was about the same in women who had lived there during childhood and then moved away as in people who remained there all their lives, suggesting that, whatever the specific reasons for the increase in stroke risk, most of the damage is done during childhood. This may be because changes in the body caused by the stroke belt lifestyle have a permanent effect on your risk, or simply because dietary and exercise habits you acquire as a child are likely to be continued for the rest of your life, regardless of where you live.

I live in the stroke belt; what can I do to protect myself?

People living in the stroke belt need to be especially conscious of their risk factors for stroke, such as [high blood pressure](#) , [high cholesterol](#) , [obesity](#) and [smoking](#) . See our [Risk Calculator](#) to find out your stroke risk, and check out our other risk factors articles to discover changes you can make to lower your risk.

For More Information

National Heart, Lung, and Blood Institute – Stroke Belt Initiative, with projects by state
www.nhlbi.nih.gov/health/prof/heart/other/sb_spec.pdf

References

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