

Number of fast-food restaurants in neighborhood associated with stroke risk

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The risk of stroke increases with the number of fast-food restaurants in a neighborhood, according to research presented at the American Stroke Association's International Stroke Conference 2009.

After statistically controlling for demographic and socioeconomic factors, researchers found:

- Residents of neighborhoods with the highest number of fast-food restaurants had a 13 percent higher relative risk of suffering ischemic strokes than those living in areas with the lowest numbers of restaurants.
- The relative risk of stroke increased 1 percent for each fast-food restaurant in a neighborhood.

However, the researchers said the discovery of increased risk only demonstrates an association, it does not prove that fast-food restaurants raise stroke risk.

"The data show a true association," said Lewis B. Morgenstern, M.D., lead author of the study and director of the University of Michigan's stroke program and professor of neurology and epidemiology in Ann Arbor. "What we don't know is whether fast food actually increased the risk because of its contents, or whether fast-food restaurants are a marker of unhealthy neighborhoods."

Neighborhoods with large numbers of the restaurants are prime areas for stroke prevention programs, Morgenstern said. "We need to consider

targeting communities that have a lot of fast-food restaurants as places where we can improve health."

The fast food-stroke association emerged from data gathered in the ongoing Brain Attack Surveillance in Corpus Christi (BASIC) project, which has identified strokes occurring in Nueces County, Texas, since Jan.1, 2000. This report examined 1,247 ischemic strokes that occurred from the study's start through June 2003.

Nueces County has 262 fast-food restaurants, defined by the researchers as having at least two of four characteristics: rapid food service, takeout business, limited or no wait staff and payment required before receiving food.

The team used the 64 U.S. Census Bureau tracts in Nueces County — from which they obtained demographic and socioeconomic data — as proxies for neighborhoods.

Researchers determined the number of fast-food establishments in each tract, and then sorted the tracts into four groups based on number of fast-food restaurants. Neighborhoods with the lowest numbers of fast-food restaurants (less than 12) were in the 25th percentile and those with the highest numbers (greater than 33) were in the 75th percentile.

The epidemiological study supports previous research that suggested a link between fast food and cardiovascular disease — to which some fast-food chains have responded by including more nutritious options to their menus.

Morgenstern said the report needs to be confirmed and expanded by similar studies of the correlation between fast-food restaurants and stroke in other cities.

"We need to start unraveling why these particular communities have higher stroke risks," Morgenstern said. "Is it direct consumption of fast food? Is it the lack of more healthy options? Is there something completely different in these neighborhoods that is associated with poor health?"

Each year about 780,000 people have a new or recurrent stroke. Of all strokes, 87 percent are ischemic, which result from a blocked artery in the brain or an artery feeding blood to the brain.

Source: American Heart Association

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