

Some stroke survivors' function slowly declines over time

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Even when patients recover most functional ability in the first months after a blood-clot related stroke, they gradually become more dependent over the next five years - especially those with Medicaid or no private insurance - according to a large study reported in *Stroke: Journal of the American Heart Association*.

Based on their recovery level after the first six months, the odds of [patients](#) having a full recovery (living independently or needing very little assistance) fell as much as 9 percent per year over five years, depending on which factors were included. At the same time, the odds of patients being rated as severely disabled compared to the first six months rose as much as 11 percent per year.

"We usually speak of stroke as an episode from which one hopefully recovers, but this new data suggests that, in terms of function, it could be considered a chronic condition showing a steady decline over time," said Mandip S. Dhamoon, M.D., M.P.H., a fourth-year neurology resident at the Columbia University College of Physicians and Surgeons in New York.

Patients' insurance status had a significant impact on whether their function deteriorated over time. Uninsured patients and those covered by Medicaid (state-administered insurance available to low-income people) had a significant decline in function over five years, while those covered by Medicare (federally administered insurance for those age 65 and older) or [private insurance](#) did not.

"Access to health care is not just important around the time of the stroke but in the years following, when those with poor access do worse in their functioning and ability to be independent," Dhamoon said. "We can speculate that they may be less likely to get ongoing rehabilitation and may be less able to manage their blood pressure and other risk factors."

Patients also were significantly more likely to be disabled within five years if they:

- were older at the time of the stroke.
- had diabetes.
- were unmarried.
- had a more severe stroke.
- had a right-sided stroke.
- had urinary incontinence within a week of the stroke.

"Although these were important predictors, even after we adjusted for all of these variables, there was still a decline in functional status," Dhamoon said.

Gender and ethnicity were not significant predictors of functional decline in the study.

Before this study, there was limited information on how patients fare in the years after a first stroke. However, specialists have noted that patients may do well at first but gradually experience a decline in their ability to do basic activities, even if they don't have another stroke, heart

attack or other medical condition that impairs function.

Researchers analyzed data from the Northern Manhattan Study, a prospective population-based study initiated in 1990 to investigate stroke and stroke risk factors in the multi-ethnic community of Washington Heights in New York City. Researchers reviewed data on 525 patients, (average age 69; 55 percent women; 55 percent Hispanic) who had suffered a first ischemic stroke (caused by blockage of an artery supplying blood in or to the brain) at 40 years of age or older. Of the 431 patients for whom initial stroke severity ratings were available: 54.6 percent were classified as mild; 35.1 percent moderate; and 10.3 percent severe.

Researchers assessed patients' function using the Barthel index, a 100-point scale that rates the ability to carry out 10 life activities with and without assistance. Ratings were made six months after the stroke and annually for five years. Assessments taken after a patient had a repeat stroke or heart attack were not included in the analysis.

"The longer after the initial stroke, the greater the likelihood that people were more dependent, with the greatest declines beginning three years after the stroke," Dhamoon said.

The researchers are currently analyzing a group of about 3,000 people who had not experienced a stroke at the time they enrolled in the Northern Manhattan Study. Using information on these participants' ability to perform daily activities, gathered over eight or nine years, the investigators plan to compare the rate of decline in function between those who have a stroke during the follow-up period and those who don't.

The American Heart Association estimates that 795,000 people in the United States experience new and recurrent strokes each year. [Stroke](#) is

the third leading cause of death in the United States.

Source: American Heart Association ([news](#) : [web](#))

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