

Study reports advance in early diagnosis of spatial neglect after stroke

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Researchers at Kessler Foundation and Seton Hall University report findings in the early diagnosis of acute spatial neglect, a hidden disability that is a common complication of stroke. In the weeks after stroke, 30-50% of stroke survivors cannot reliably report or respond to external events that take place in the space opposite the side of their brain injury. Called spatial neglect, this disorder is a problem with attention and action rather than vision. Often overlooked, it is associated with accidents, falls, safety problems and functional disability that impedes recovery.

According to Anna Barrett, MD, director of [Stroke Rehabilitation Research](#) at Kessler Foundation, this study is unique in its focus on patients in the acute phase. "Early detection of spatial neglect after stroke could enable cognitive interventions to improve function, and might prevent chronic disability," explained Dr. Barrett. "Spatial neglect is often thought of as a visual problem, but it critically impairs action and movement."

While the impact of weakness and paralysis are well recognized, the effects of hidden disabilities like spatial neglect are underestimated. "Spatial neglect doubles or triples the disability a stroke survivor with paralysis experiences," said Dr. Barrett, "and could make the difference between chronic dependence and successful return to work and life. That is why it is important to diagnosis early and include cognitive interventions in the rehabilitation plan."

The study is unique in looking at correlations between laboratory tools and the bedside tools clinicians use to diagnose spatial-motor dysfunction. Investigators studied 51 consecutive inpatients with right brain [stroke](#) and left neglect, within a mean 22.3 days post-stroke. Each was evaluated with laboratory measures of perceptual-attentional and motor-intentional deficits and 2 bedside measures-- the Behavioral Inattention Test (BIT)-conventional and the Catherine Bergego

scale (CBS).

Researchers determined that these psychometric assessments may be used to identify specific motor-exploratory deficits in spatial neglect. Specifically, obtaining CBS-ME scores routinely might improve the detection of spatial action deficits so that clinicians can implement appropriate care and safety interventions. Without specific cognitive rehabilitation, spatial-action deficits may persist and cause chronic disability. "Much effort goes into hi-tech approaches," commented Dr. Barrett. "This study, however, shows that clinical tools can be optimized for the bedside, to identify patients who need targeted management and therapy."

More information: The article, "Psychometric evaluation of neglect assessment reveals motor-exploratory predictor of functional disability in acute-stage spatial neglect", appears in the January 2012 issue of *Archives of Physical Medicine & Rehabilitation*, vol. 93(1)([doi:10.1016/j.apmr.2011.06.036](https://doi.org/10.1016/j.apmr.2011.06.036)).

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