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## *News Release*

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### **Speaking second language helps recovery from stroke, study shows**

People who speak more than one language are more likely to recover from a stroke than monolingual patients, research suggests.

Researchers have found that people who speak multiple languages are twice as likely to recover their mental functions after stroke as those who speak one language.

The study gathered data from 608 stroke patients in Hyderabad, India, who were assessed, among others, on attention skills and the ability to retrieve and organise information.

The researchers found about 40 per cent of bilingual patients had normal mental function following a stroke, compared with 20 per cent of single language patients.

The study was carried out by a team from the University of Edinburgh and Nizam's Institute of Medical Sciences in Hyderabad.

They chose Hyderabad because it is a multicultural city in which many languages are commonly spoken.

Researchers took into account other factors such as smoking, high blood pressure, diabetes and age to ensure results could not be attributed to having a healthier lifestyle.

Previous studies by the same research team showed that people who speak more than one language develop dementia several years later than people who speak one language.

Researchers say these studies suggest the mental challenge of speaking multiple languages can boost cognitive reserve – an improved ability of the brain to cope with damaging influences such as stroke or dementia.

Co-author, Thomas Bak, of the University of Edinburgh's School of Philosophy, Psychology and Language Sciences said: "Bilingualism makes people to switch from one language to another, so while they inhibit one language, they have to activate another to communicate. This switching offers practically constant brain training which may be a factor in helping stroke patients recover."

This is the first time that researchers have studied the influence of bilingualism on the recovery of stroke, the second most important cause of cognitive disability after dementia.

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The researchers say that the study results may not be applicable to all bilingual people because switching languages is a daily reality for patients in Hyderabad but this might not be the case in other places. More research is needed to determine the exact circumstances under which bilingualism can have a positive influence on mental functions.

The study, which is funded by the Indian Council of Medical Research, is published in the American Heart Association journal *Stroke*. The lead author is Professor Suvarna Alladi of Nizam's Institute of Medical Sciences in Hyderabad.

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