

In brain-injured children, early gesturing predicts language delays

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About 1 in 4,000 infants has a brain injury known as pre- or perinatal brain lesions, mainly as a result of stroke, with risk factors involving both mothers and babies. Children with early brain lesions that affect one side of the brain often take longer to reach early language milestones; these delays normalize for many but persist for some. New research has found that children's gesturing at 18 months can identify those children who will have these later language delays.

Researchers at the University of Chicago carried out the work, which can be found in the March/April 2010 issue of the [Child Development](#) journal.

The study looked at gestures such as pointing or waving goodbye in 11 18-month-olds as a way of predicting later vocabulary delays. The researchers considered gesture because recent studies have found it to be a good predictor of later language abilities in typically developing children. The children's [language comprehension](#) was tested when they were 30 months old.

The researchers found that gesturing at 18 months (but not early speech) predicted which children with lesions had vocabulary delays a year later. The results suggest that gesture may be a tool for diagnosing persistent language delay in children with [brain lesions](#).

These findings have both diagnostic and therapeutic implications, according to the authors of the study, Susan C. Levine, Stella M. Rowley

Professor of Psychology, and Susan Goldin-Meadow, Beardsley Ruml Distinguished Service Professor, both in the Department of Psychology, Comparative Human Development, and the Committee on Education at the University of Chicago.

Notes Levine: "Gesture may be a promising diagnostic tool for identifying those children with pre- or perinatal brain lesions whose language delays are likely to persist at a time when they are saying very little. Early identification may be useful because intervention early in development may be critical to successful remediation of language delay."

Adds Goldin-Meadow: "The fact that gesture predicts later language delay raises the possibility that gesture itself may be an effective intervention--encouraging children with lesions to [gesture](#) in the first 18 months of life may improve their spoken vocabulary years later."

Provided by Society for Research in Child Development

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