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# Deaf people are disabled.



**Brain and Language Laboratory for Neuroimaging**

A resource hub of the NSF Science of Learning Center  
for Visual Language and Visual Learning

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**BUSTED**

- ▶ The deaf child's brain at birth is biologically as normal as any hearing child's brain. Deaf and hearing infants' brains are fundamentally similar, with the normal processes of neuroplasticity over time.
- ▶ With systematic early visual language exposure, deaf children gain important higher cognitive processing advantages over age-matched hearing peers.
- ▶ Forty decades of research have shown many ways in which deaf child's brain can become quickly *advantaged* in early life if exposed to a visual language as part of early bilingual sign-speech language learning. These children gain greater visual processing, language, and reading skills, as well as select cognitive flexibility and social-regulation benefits relative to hearing children of the same age.

*Implications:* All children need early exposure to natural language, with devastating lifelong deleterious consequences if this is not the case (for example, children raised in under-resourced contexts). Helping educators and medical professionals to be aware of the advantages of early visual language exposure, in addition to speech, could spare many deaf and hard of hearing infants the adverse — even disabling — neurological and life impacts resulting from early language deprivation that can be caused by exposure solely to speech.