

# Assisted listening devices benefit children with dyslexia

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Image courtesy of Blausen Medical

For children with dyslexia, the use of assistive listening devices (classroom frequency modulation systems) reduces auditory processing variability, with concomitant improvements in reading and phonological awareness, according to a study published online Sept. 4 in the *Proceedings of the National Academy of Sciences*.

(HealthDay)—For children with dyslexia, the use of assistive listening devices (classroom frequency modulation [FM] systems) reduces auditory processing variability, with concomitant improvements in reading and phonological awareness, according to a study published online Sept. 4 in the *Proceedings of the National Academy of Sciences*.

Jane Hornickel, Ph.D., from Northwestern University in Evanston, Ill., and colleagues assessed the impact of one year of classroom FM system use on auditory [neurophysiology](#) and reading skills in 38 normal hearing children with dyslexia (aged 8 to 14 years). Participants were allocated to an FM-using group or a control group.

The researchers found that there was reduced variability of subcortical responses to sound with FM system use. This improvement correlated with simultaneous increases in reading and phonological awareness. Gains in phonological awareness were predicted by the consistency of the [neural response](#) before FM system use. These effects were not seen in a matched group of children with dyslexia from the same school who did not use the FM system.

"Assistive listening devices can improve the [neural representation](#) of speech and impact reading-related skills by enhancing acoustic clarity and attention, reducing variability in auditory processing," Hornickel and colleagues conclude.

**More information:** [Abstract](#)  
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