Delayed auditory processing found in fetal alcohol syndrome

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Preschool children with fetal alcohol spectrum disorder display delays in auditory processing, which may serve as a useful neural marker of information processing difficulties, according to research published in the October issue of *Alcoholism: Clinical & Experimental Research*.

(HealthDay)—Preschool children with fetal alcohol spectrum disorder (FASD) display delays in auditory processing, which may serve as a useful neural marker of information processing difficulties, according to research published in the October issue of *Alcoholism: Clinical & Experimental Research*.

Julia M. Stephen, Ph.D., of The Mind Research Network in Albuquerque, N.M., and colleagues measured the neurophysiological responses to auditory stimuli of 10 children aged 3 to 6 years with FASD and 15 healthy controls. A 72 decibel tone at 1,000 Hz was used, and

neurophysiological response was measured using magnetoencephalography (MEG).

The researchers found that, compared with healthy control children, children with FASD showed significant delays in auditory M100 and M200 latencies. This latency delay occurred in the auditory cortex and was present in preschool-aged children across all FASD subtypes.

"Auditory delay revealed by MEG in children with FASDs may prove to be a useful neural marker of information processing difficulties in young children with prenatal alcohol exposure. The fact that delayed auditory responses were observed across the FASD spectrum suggests that it may be a sensitive measure of alcohol-induced brain damage," the authors write. "Therefore, this measure in conjunction with other clinical tools may prove useful for early identification of alcohol-affected children, particularly those without dysmorphia."

More information: Abstract
Full Text (subscription or payment may be required)