

No adverse cognitive effects in kids breastfed by moms using antiepileptic drugs

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Breastfeeding by mothers treated with antiepileptic drug (AED) therapy was not associated with adverse effects on cognitive function in children at 6 years.

Some concern has been raised that breastfeeding by mothers being treated with AED therapy may be harmful to the child because some AEDs can cause neuronal apoptosis (cell death) in immature animal brains.

The study is an ongoing investigation of neurodevelopmental effects of AEDs on cognitive outcomes in children of mothers with epilepsy treated with AEDs. Preliminary results at age 3 years found no difference in IQ for children who breastfed vs. those who did not. However, IQ at age 6 years is more predictive of school performance and adult abilities. The study assessed 181 children at 6 years for whom investigators had both breastfeeding and IQ data.

Nearly 43 percent of the children were breastfed an average of seven months. IQ at age 6 years was related to drug group (IQ worse by 7-13 points for valproate compared to other drugs); drug dosage (higher dosage associated with lower IQ with the effect driven by valproate); higher maternal IQ associated with higher child IQ; folate use around the time of conception associated with higher IQ; and higher IQ associated with breastfeeding. Breastfed children also had higher verbal abilities than [children](#) who were not breastfed. The potential deleterious effects of AED exposure from breast milk in newborns who have not been previously exposed in utero are not addressed by the study.

"Our study does not provide a final answer, but we recommend breastfeeding to mothers with epilepsy, informing them of the strength of

evidence for risks and benefits. Our recommendation is based on the known positive effects of breastfeeding, the results of our study, an unsubstantiated speculative risk, and theoretical reasons why breastfeeding when taking AEDs would not offer additional risk." Kimford J. Meador, M.D., of Stanford University, California, and colleagues for the Neurodevelopmental Effects of Antiepileptic Drugs (NEAD) Study Group wrote in their *JAMA Pediatrics* paper.

In a related editorial, Cynthia L. Harden, M.D., of North Shore-Long Island Jewish Health System, Great Neck, N.Y., writes: "The most conservative interpretation of these results is that [breastfeeding](#) is safe for women taking these AEDs as monotherapy and should be strongly encouraged by all participants in their care, including neurologists, pediatricians, obstetricians and allied health professionals."

More information: *JAMA Pediatr.* Published online June 16, 2014. [DOI: 10.1001/jamapediatrics.2014.118](#)
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