

# Cognitive deficits seen for infants exposed to anesthesia

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Anesthesia exposure before the age of 3 years is associated with deficits in language and abstract reasoning in children at age 10, according to a study published online Aug. 20 in *Pediatrics*.

(HealthDay) -- Anesthesia exposure before the age of 3 years is associated with deficits in language and abstract reasoning in children at age 10, according to a study published online Aug. 20 in *Pediatrics*.

Caleb Ing, M.D., from the Columbia University College of Physicians and Surgeons in New York City, and colleagues examined the [correlation](#) between exposure to anesthesia before age 3 and outcomes in language, cognitive function, motor skills, and behavior at age 10, using data from the Western Australian Pregnancy Cohort (Raine) Study for 2,608 children born from 1989 to 1992. Of these, 321 were exposed to anesthesia before age 3 years.

The researchers found that, on average, exposed children had lower

scores in receptive and expressive language (Clinical Evaluation of Language Fundamentals: Receptive [CELF-R] and Expressive [CELF-E]) and cognition (Colored Progressive Matrices [CPM]), compared to their unexposed peers. Exposure to anesthesia correlated with increased risk of disability in language (CELF-R: adjusted risk ratio [aRR], 1.87; CELF-E: aRR, 1.72) and cognition (CPM: aRR, 1.69), after adjusting for [demographic characteristics](#). Even a single exposure to anesthesia increased the aRR for disability in language and cognition (CELF-R: aRR, 2.41; CPM: aRR, 1.73).

"Our results indicate that the association between anesthesia and neuropsychological outcome may be confined to specific domains," the authors write. "Children in our cohort exposed to [anesthesia](#) before age 3 had a higher relative risk of language and abstract reasoning deficits at age 10 than unexposed children."

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