

Children exposed to methamphetamine before birth have increased cognitive problems

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In the only long-term, National Institutes of Health-funded study of prenatal methamphetamine exposure and child outcome, researchers found youngsters exposed to the potent illegal drug before birth had increased cognitive problems at age 7.5 years, highlighting the need for early intervention to improve academic outcomes and reduce the potential for negative behaviors, according to the study published online by *The Journal of Pediatrics*.

The researchers studied 151 [children](#) exposed to methamphetamine before birth and 147 who were not exposed to the drug. They found the children with prenatal methamphetamine [exposure](#) were 2.8 times more likely to have cognitive problem scores than children who were not exposed to the drug in a test often used for measuring [cognitive skills](#), the Connors' Parents Rating Scale.

"These problems include learning slower than their classmates, having difficulty organizing their work and completing tasks and struggling to stay focused on their work," said Lynne M. Smith, MD, a lead researcher at the Los Angeles Biomedical Research Institute (LA BioMed) and corresponding author of the study. "All of these difficulties can lead to educational deficits for these children and potentially negative behavior as they find they cannot keep up with their classmates."

Methamphetamine use among women of reproductive age is a

continuing concern, with 5% of pregnant women aged 15-44 reporting current illicit drug use. Methamphetamine usage during pregnancy can cause a restriction of nutrients and oxygen to the developing fetus, as well as potential long-term problems because the drug can cross the placenta and enter the fetus's bloodstream.

Previous research in Sweden found evidence of lower IQ scores, decreased school performance and aggressive behavior among children with prenatal methamphetamine exposure. The study tracked the children through age 15, but it didn't compare them to children who had no prenatal methamphetamine exposure.

Researchers at LA BioMed and in Iowa, Oklahoma and Hawaii – all places where methamphetamine usage is prevalent – have been tracking children who were not exposed to the drug and children with prenatal methamphetamine exposure since 2002, as part of the Infant Development, Environment and Lifestyle (IDEAL) Study. This study, which is the only prospective, longitudinal National Institutes of Health study of prenatal methamphetamine exposure and child outcome, was conducted under the auspices of Principal Investigator Barry M. Lester, PhD, at Women & Infants Hospital of Rhode Island, and published online Friday.

"By identifying deficits early in the child's life, we can intervene sooner and help them overcome these deficits to help them have greater success in school and in life," said Dr. Smith. "Through the IDEAL Study, we are able to track these children and better understand the long-term effects of prenatal methamphetamine exposure."

Provided by Los Angeles Biomedical Research Institute at Harbor

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