

New report suggests why risk for sudden infant death syndrome is greater in babies of mothers who smoke

November 9 2010

The link between maternal cigarette smoking during pregnancy and Sudden Infant Death Syndrome (SIDS) may relate to the negative effects of nicotine on the development of brain centers that regulate breathing, according to an article in the recent issue of *Pediatric Allergy, Immunology, and Pulmonology*, a peer-reviewed journal published by Mary Ann Liebert, Inc.

SIDS is the leading cause of death during the first year of an infant's life. The link between maternal [smoking](#) and SIDS is clear. Prenatal exposure to cigarette smoke puts infants at a 2- to 5-fold increased risk of SIDS and contributes to premature birth, another risk factor for SIDS. How exposure to the chemicals in cigarette smoke in utero increases the risk of SIDS has not been determined.

In the article entitled, "The Effect of In Utero Cigarette Smoke Exposure on Development of Respiratory Control: A Review" Hemant Sawnani, Erik Olsen, and Narong Simakajornboon, from Cincinnati Children's Hospital Medical Center (Ohio), summarize the evidence from both human and animal studies demonstrating that nicotine (in cigarette smoke) interferes with the development of the parts of the brain that control breathing. Nicotine exposure in utero leads to altered breathing patterns and ventilatory responses that compromise respiratory arousal and auto-resuscitation. Infants of mothers who smoked during [pregnancy](#) have more pauses in breathing (infant apnea) and have

decreased ability to wake up from sleep in response to low oxygen. This sheds important light on why smoking during pregnancy increases risk for [Sudden Infant Death Syndrome](#) (SIDS, crib death).

"These findings highlight the importance of public health policies to prevent the development of [tobacco dependence](#) in adolescent girls and the importance of treatment of maternal tobacco dependence prior to pregnancy. Perhaps when young women are freed from the chains of [tobacco addiction](#) we can then truly say that 'you have come a long way... for your baby,'" says Harold Farber, MD, MSPH, Editor of *Pediatric Allergy, Immunology, and Pulmonology*, and Associate Professor of Pediatrics, Section of Pulmonology, Baylor College of Medicine, Houston, TX.

More information: The article is available free online at www.liebertpub.com/ped

Provided by Mary Ann Liebert, Inc.

Citation: New report suggests why risk for sudden infant death syndrome is greater in babies of mothers who smoke (2010, November 9) retrieved 19 April 2024 from <https://medicalxpress.com/news/2010-11-sudden-infant-death-syndrome-greater.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--