

New evidence strengthens link between cigarette smoke exposure and poor infant health

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The damaging effects of smoking and smoke exposure can be seen at any age. Pediatricians have even noted these negative effects in various stages of infant development. The consequences of maternal smoke exposure during pregnancy can range from higher rates of prematurity to increased risk of sudden infant death syndrome. Two new studies and an accompanying editorial soon to be published in *The Journal of Pediatrics* examine several physical and behavioral effects of cigarette smoke exposure on infants.

In an attempt to understand the relationship between maternal smoking and certain birth defects, Dr. Gary Shaw of the March of Dimes and colleagues from institutes in Norway, Holland, and Texas, studied serum samples collected between 2003 and 2005 from pregnant women enrolled in the California Expanded AFP (alpha fetoprotein) program. The researchers measured the levels of cotinine, a metabolite of nicotine, to determine whether the mothers smoked during pregnancy. They found that women who smoked during pregnancy were nearly 2.5 times more likely to have babies with oral clefts. According to Dr. Shaw, "Babies with oral clefts require significant medical care—often four surgeries by age two—and may have speech, hearing, and feeding problems."

In a related study, Dr. Laura Stroud and colleagues from Brown University studied the effects of cigarette smoke exposure on infant

behavior. The researchers studied 56 otherwise healthy infants and used questionnaires and cotinine measurements to determine cigarette smoke exposure. They found that the 28 babies who had been exposed to cigarette smoke were more irritable and difficult to sooth than the 28 babies who were not exposed. Dr. Stroud stresses the importance of cessation programs for smoking mothers, as well as programs to help new mothers manage a baby who is difficult to soothe.

Offering a fresh perspective in their related editorial, Dr. Cynthia Bearer of the University of Maryland and Matthew Stefanak of the Mahoning County District Board of Health in Ohio consider the findings of the two studies as further evidence that smoking is a major pediatric problem. Citing the fact that 90% of smokers start smoking by the age of 18, Dr. Bearer sees prevention as the best solution and stresses the need to stop smoking before it starts. According to Dr. Bearer, "Proven prevention measures include having family dinners and focusing on the negative body impact of smoking." She suggests that the graphic portrayal of the damaging effects of tobacco use on health and physical attractiveness may be effective in deterring teens from smoking. Because parents who actively disapprove of smoking can help their children avoid the harmful effects of cigarette smoke exposure, Dr. Bearer encourages parents to take an active role in smoking prevention.

Source: Elsevier

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