

Secondhand smoke increases teen test failure

September 20 2007

Teens exposed to secondhand smoke at home are at increased risk of test failure in school, suggests a new study in the *Journal of Adolescent Health*.

“Our retrospective study suggests that in adolescents, secondhand smoke exposure could interfere with academic test performance,” said lead author Bradley Collins, Ph.D., assistant professor of public health and director of the Health Behavior Research Clinic at Temple University.

Taking other known risk factors into account — for example, socioeconomic status, gender, prenatal exposure to smoking and active smoking during adolescence— Collins and his colleagues found that exposure to secondhand smoke at home decreased the odds of passing standardized achievement tests by 30 percent in 16- and 18-year-olds. Surprisingly, the study found that when examining the effects of prenatal tobacco exposure and secondhand smoke together, prenatal exposure did not influence test performance.

These study results bolster growing evidence of academic-related secondhand smoke consequences beyond the known health consequences, and should further encourage efforts to reduce this environmental threat, the researchers stated.

“It’s important that we help smoking parents learn how to reduce their children’s exposure to secondhand smoke, a goal that can be achieved without requiring the parent to immediately quit smoking, although that’s the ultimate goal for the health of the entire family,” said Collins.

Current smoking cessation success rates are low, ranging from 20 percent to 28 percent in the United States.

The researchers, who analyzed data from 6,380 pregnant women and children from the 1958 British National Child Development Study, initially were interested in the long-term effects of prenatal exposure to smoking on adolescent achievement test performance when controlling for the effects of secondhand smoke exposure during adolescence. They found it interesting that secondhand smoke exposure trumped prenatal exposure.

The researchers note that the United States and the United Kingdom share similar statistics on smoking: Approximately one third of women in their childbearing years are smokers, 10 percent to 15 percent of women report smoking during pregnancy, and up to 60 percent of children may be exposed to smoke at home.

The study did not reveal why secondhand smoke influenced failure, and the researchers were unable to include other known factors, for example, learning disabilities, that could also affect learning and academic test performance. However, prior research has linked exposure to prenatal smoke to a higher risk of cognitive and academic defects, learning disabilities and impulsivity. But few studies have looked simultaneously at the effects of both prenatal and environmental exposure to smoking on academic achievement beyond childhood and into adolescence.

Collins currently is conducting a smoking treatment research study that is focused on reducing young children's exposure to secondhand smoke, breaking down behavior changes into smaller steps. He is one of a few researchers looking at smoking in underserved, high-risk populations and helping them find solutions that don't require smoking abstinence as the first-step goal.

Source: Temple University

Citation: Secondhand smoke increases teen test failure (2007, September 20) retrieved 24 April 2024 from <https://medicalxpress.com/news/2007-09-secondhand-teen-failure.html>

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.