

# Early Nicotine Exposure Linked to Increased Addiction and Disease and Quitting is Harder for Youth According to a New Report from the American Academy of Pediatrics

12/19/2016

Nicotine is an extremely addictive substance. The earlier in childhood a person starts, the stronger the addiction, and children have more trouble quitting, according to a new American Academy of Pediatrics technical report, **"Nicotine and Tobacco as Substances of Abuse in Children and Adolescents," published in the January 2017 Pediatrics, available online on Dec. 19.**

An estimated 4 percent of kids who try to quit nicotine will succeed, compared to 5 percent of adults who try to quit. Children and adolescents also make more attempts to quit before succeeding.

The new technical report, which supports guidance published in a 2015 AAP policy statement, provides research and information about the addictive and disease-promoting aspects of smoking and nicotine use. Among the technical report's findings:

- \* E-cigarettes, which have been aggressively marketed as cessation devices, have never been proven effective at helping people quit, and research suggests they encourage rather than discourage tobacco use.
- \* Between 2011 and 2012, e-cigarette experimentation by U.S. high and middle school student doubled, and has increased significantly since then, but so has accidental poisonings associated with e-cigarettes, increasing from 1 per month in 2010 to 215 per month in 2014, including one death.
- \* It's estimated that two-thirds of children who smoke in 6th grade become regular adult smokers compared to 46 percent in 11th grade. Ninety percent of tobacco-dependent adults started smoking before age 18.
- \* For adolescents, even infrequent smoking increases the risk of addiction. One study found that monthly smoking for teens increases the likelihood of addiction to tobacco 10-fold.
- \* Nicotine is metabolized at different rates depending on gender, which impacts addiction. Women metabolize nicotine faster, which may explain why they have more trouble quitting.
- \* Studies show that smokers have higher levels of cortisol, indicating that addiction stresses them.
- \* The technical report also details nicotine's link to numerous diseases, including some cancers, kidney disease, inflammatory bowel disease, osteoporosis and obesity; its impact on sexual function and fertility rates in men and women; and on the adverse developmental impact on babies of mothers who smoke.

The rapidly developing brains of children and adolescents are particularly susceptible to nicotine addiction. "Given the difficulty that adolescents have attempting to stop smoking and use of tobacco products, the need for prevention efforts to stop them from starting is extremely important," said Lorena M. Siqueira, MD, MSPH, lead author of the technical report.

The American Academy of Pediatrics is an organization of 66,000 primary care pediatricians, pediatric medical subspecialists and pediatric surgical specialists dedicated to the health, safety and well-being of infants, children, adolescents and young adults. For more information, visit [www.aap.org](http://www.aap.org).