

# Physicians have key role in warning kids of e-cigs' dangers

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E-cigarettes, e-cigars, e-pipes, cigalikes, mods, vapes, vape pens, tank systems. Electronic cigarettes go by countless names and come in a dizzying array of designs, and together they are now the preferred tobacco product among youth in the U.S. The surgeon general recently issued the first federal review of the impact of these products on young Americans, calling it a major public health concern. Physicians have a pivotal function in the response and should expect questions from their patients about e-cigarettes.

“All Americans need to know that e-cigarettes are dangerous to youth and young adults,” U.S. Surgeon General Vivek H. Murthy, MD, said in a statement introducing the report, which was written and reviewed by more than 150 experts. “Any tobacco use, including e-cigarettes, is a health threat, particularly to young people.”

The report outlines a specific call to action intended to “accelerate policies and approaches that can reduce the public health threat posed by e-cigarette use among young people.” It addresses all stakeholders and provides a list of goals that include policy, practice, research and communications recommendations to confront the hazards of this cultural phenomenon.

## Key takeaways for physicians

One of the strategies is to educate health professionals about the risks of e-cigarette use among children and young adults. Here are the crucial points practicing physicians should keep in mind when talking to children and young adults.

**E-cigarettes are wildly popular among young people.** In 2015 alone, the report notes, more than 3 million kids in middle school and high school had used e-cigarettes in the past month. Perhaps more tellingly, e-cigarette use among high school students grew a whopping 900 percent from 2011 to 2015.

Data show that from 2013 to 2014, current use of e-cigarettes by adults 18 – 24 doubled, and by 2014, it had surpassed that of adults 25 and older. By 2015, nearly 40 percent of high school students had tried e-cigarettes.

**They are aggressively marketed to youth, using time-tested techniques.** These are many of the same techniques used by the tobacco industry for conventional cigarettes, and young Americans' exposure to and awareness of them are high. E-cigarettes are also pushed using an assortment of new inducements, including literally thousands of flavors, such as menthol, alcohol, fruit, chocolate and other sweets.

**They are not harmless.** Many e-cigarettes contain nicotine, which is highly addictive. In addition, the report notes, "Nicotine exposure during periods of significant brain development, such as adolescence, can disrupt the growth of brain circuits that control attention, learning and susceptibility to addiction."

**E-cigarettes could be much more dangerous than we know.** Nicotine is just one of the dangerous ingredients in e-cigarette aerosol. It may also contain volatile organic compounds and heavy metals. "The health impacts of frequent exposure to the toxicants in e-cigarette aerosol are not well understood, though several are known carcinogens," the report says.

**Many young users do not know the risk they are taking.** Research suggests young users are not as aware of the health consequences of e-cigarette use as they are of the risks from cigarette smoking. Some do not even know that e-cigarette products can contain nicotine and be addictive.

**E-cigarette use and conventional cigarette use often go hand in hand.** E-cigarette use among young Americans is strongly associated with use of other tobacco products, including combustibles. In 2015, the report notes, "nearly six out of 10 high school cigarette smokers also used e-cigarettes."

**Don't count on them to help smokers quit.** Although some claim e-cigarettes can be used as a cessation device, the evidence supporting this use remains unproven and, according to the report, "nonexistent in youth."

The surgeon general's office has created a website that includes a primer on how e-cigarettes work, details of usage trends, examples of teen beliefs, talking points for parents and a message that health professionals are credible sources of information about the nicotine-delivery devices.

## Organized medicine groups agree

In a joint statement, the American Academy of Pediatrics, the American Academy of Family

Physicians, the American College of Physicians, the American Congress of Obstetricians and Gynecologists and the AMA applauded the surgeon general's report.

"While adolescent use of tobacco has declined since the 1970s, tobacco use continues to be a major health threat to young people and adults, and e-cigarettes are threatening to addict a new generation to nicotine," the statement said. "The developing brains of children and teens are particularly vulnerable to nicotine, which is why the growing popularity of e-cigarettes among adolescents is so alarming and dangerous to their long-term health.

"We agree with the surgeon general's report that a physician's office is an ideal place to educate patients about the risks of use and exposure to e-cigarettes and other tobacco products," they added. "We also call on our physician members to provide advice to all children and adolescents on the dangers of tobacco use before they experiment with smoking."

The AMA has policy supporting increased taxation of all tobacco products, including electronic nicotine-delivery systems, Food and Drug Administration oversight of e-cigarettes and many other tobacco products, and raising the minimum tobacco-purchasing age to 21. The AMA also says physicians should educate themselves about e-cigarettes, only promote FDA-approved smoking-cessation tools and resources and advise patients who use e-cigarettes about the potential danger to children of accidental ingestion of improperly stored e-cigarette liquid.