E-Cigarettes: The Debate Continues

Is this alternative to smoking tobacco a friend or foe of health?

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According to a report from the U.S. surgeon general titled E-Cigarette Use Among Youth and Young Adults, American youth and young adults smoking electronic cigarettes is a major public health concern. But not all experts agree.

In addition, puffing on these battery-powered devices has been marketed as a safer alternative to smoking tobacco, or conventional cigarettes, and as a method to help long-term smokers quit. The battery-operated devices generally contain nicotine, flavorings and other additives that turn into vaporized liquid.

“What’s happening, though, is that a lot of people, primarily young people who never smoked cigarettes and had no intention of smoking cigarettes, are picking up e-cigarettes and becoming exposed to their nicotine and—potentially—the other harmful ingredients and components that are contained in the flavorings, the liquid and the aerosols that are inhaled,” says Linda Richter, director of Policy Research and Analysis at the National Center on Addiction and Substance Abuse (CASA).

While the surgeon general’s report said e-cigarette use increased “an astounding” 900 percent among high school students from 2011 to 2015, a survey released by the National Institutes of Health (NIH) in December 2016 showed that the rate of e-cigarette use among high school seniors dropped to 12.4 percent from the previous year’s 16.2 percent. (Although estimates have varied, the CDC reported that 3 million middle and high school students were e-cigarette users in 2015.)

But the NIH survey, also reported that e-cigs are more popular than traditional tobacco cigarettes among teenagers.

“The decrease in [e-cigarette] use overall was fairly small, but it still was significant statistically speaking,” Richter says. “So that’s an encouraging sign. But until you have several years of data, it’s really hard to come to any firm conclusions.”

CASA’s goal, however, is to offer the public—parents in particular—accurate information about e-cigs and other devices used for vaping (a term for inhaling and exhaling the vapor produced by an electronic cigarette or a similar device). “We want to make sure that people continue to fully understand the risks, the benefits and the true facts about e-cigarettes and their effect on health,”

she explains.

Although some health advocates believe e-cigarettes are better than combustible cigarettes, they still pose health risks. One major problem is that e-cigarettes contain nicotine, which is highly addictive and linked to “interference with healthy brain and lung development during fetal development, childhood and adolescence,” according to the center’s website.

Other dangers of this drug include unintentional poisoning in children, increased risk for other substance use and addiction and short- and long-term health effects that have not yet been determined because e-cigarettes are relatively new products.

Bruce Nye, board vice president at the Consumer Advocates for Smoke-Free Alternatives Association and a registered nurse, acknowledges that while young people’s exposure to nicotine from smoking is a major concern, conclusions about the drug’s effect on humans rely on research done in adolescent mice and rats. Those studies did not show that alteration in brain structure when the rodents were exposed to nicotine actually had an effect on the rats’ behavior, he contends.

Nye says the surgeon general’s report ignored data showing that 75 percent of children who use e-cigarettes one or two days a month aren’t smoking ones that contain nicotine. He believes the account overstates how harmful e-cigarettes are to youth.

But there are findings that suggest the vapors from nicotine-free electronic cigarettes can contain chemicals and other substances that may also damage lung health, according to the American Physiological Society.

“There are a lot of confusing messages out there,” Richter says. “The tobacco companies and e-cigarette companies have done a fantastic job of promoting the idea that these products are pretty much harmless, which is not really true. There are a lot of misconceptions among the public and among parents.”

Still, despite the pervasiveness of advertising, “parents play a tremendous role in influencing their children’s decisions and behaviors regarding substance use, and using e-cigarettes is no different,” Richter suggests.

As a result, CASA launched an online resource called “Expert Views: E-Cigarettes” for parents to learn the pros and cons about the electronic products. One section of the site discussed the value of e-cigs as a safer alternative for those who smoked tobacco cigarettes as well as detailed the toxins released in its vapors.

In addition, Richter stresses that school-based prevention programs that offer teens direct education should incorporate warnings about e-cigarettes into their messaging.

Nonetheless, young people are going to experiment because that’s a part of their growth and development. “The big key with youth is to try to educate them on the consequences of an action

that are felt now and the consequences of an action that may be delayed," Nye says. "This doesn't just apply to smoking or e-cigarettes but also for many decisions in life."

Delmonte Jefferson, executive director of the National African American Tobacco Prevention Network (NAATPN), which works with African-American organizations to reduce tobacco use and assess the effect of tobacco on African Americans, believes e-cigarettes will start appealing more to Black youth and young adults once companies reduce the price of their devices. (The surgeon general's report showed that these groups were less likely to use e-cigarettes.)

"Mentholated tobacco products are used to initiate young people in target populations to tobacco use," Jefferson says. "E-cigarettes are the new menthol." That's why the electronic devices are now on NAATPN's radar.

In addition, "hard-hitting" media campaigns, such as "Real Cost" and "Fresh Empire," that target young people are effective in reducing youth initiation into smoking, Jefferson adds. These federally funded campaigns discourage youth tobacco use, and encourage them to think about the serious health effects associated with smoking.

"We need to get very similar campaigns out on e-cigarettes," he says. "The government not only has to educate through media campaigns; the government has to regulate."

Nye thinks public health authorities need to refocus their efforts on the 36.5 million Americans who smoke tobacco cigarettes. "We have got to realize that reducing the harm for the people who smoke is as important, if not more so, than preventing people from taking up smoking in the first place," he says.

Although Nye does not believe in the possibility of a smoke-free generation, Richter and Jefferson remain hopeful.

Looking to the "tremendous decline in cigarette use over the past few decades," Richter believes young people will start to realize the effects of e-cigarettes and their potential to lead to cigarette smoking. (In a 2015 study conducted by NIH, 30.7 percent of teenage e-cigarette users started smoking within six months.)

"Kids are smart," Richter says. "They'll pick up on it. I don't know if it's going to be in the very near future, but I'm quite hopeful that that will come sometime soon and that in a generation or so, people will be like, 'I can't believe you guys did that [smoked electronic cigarettes]. That's ridiculous.'"

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