

## Vaping: Not as Cool as the Media Makes It Seem



There was a 900% increase in electronic cigarette (e-cigarette) use among high school students from 2011 to 2015, according to the Surgeon General. The report, e-cigarette Use Among Youth and Young Adults,\* was released in December 2016, based on U.S. middle and high school student surveys. It is a first-of-its-kind report from a Federal agency that comprehensively reviews the public health issue of e-cigarettes.

“These products are now the most commonly used form of tobacco among youth in the United States, surpassing conventional tobacco products, including cigarettes, cigars, chewing tobacco and hookahs,” wrote Dr. Vivek H. Murthy, US Surgeon General. “I am urging all parents to take a stand against e-cigarette use by our nation’s young people.”

The report provides an interactive website and educational quiz for parents: [e-cigarettes.surgeongeneral.gov](http://e-cigarettes.surgeongeneral.gov).

There is much misinformation about e-cigarettes and the report is one way of educating on the dangers. Perhaps most compelling is the damage of nicotine on a developing teen brain, including mental health problems, behavioral issues and changes in brain structure. e-Cigarettes also bring the possibility of addiction and associated long-term complications.

As of 2014, the e-cigarette industry spent \$125 million a year on advertising — using techniques from successful traditional cigarette campaigns. Teens reported using electronic tobacco products because they believe they are less harmful than conventional cigarettes. e-Cigarettes are also a way to avoid indoor smoking restrictions. Young adults reported enjoying the more than 7,000 flavors of e-cigarettes. The report notes e-cigarettes are also used to smoke marijuana and possibly other illicit drugs.

To counter some wrongly-held beliefs, we can look to the preliminary laboratory analysis conducted by the FDA on samples of e-cigarettes.\*\*

- Detectable levels of known carcinogens and toxic chemicals.
- Quality control processes used in manufacturing are inconsistent or non-existent.
- Diethylene glycol, used in antifreeze and toxic to humans, was detected in some samples.
- Cartridges labeled as containing no nicotine had low levels present in all samples tested, except one.
- One high-nicotine cartridge delivered twice as much nicotine when the vapor was inhaled than was delivered by a sample of the nicotine inhalation product for use in smoking cessation.

Further results are pending, however, it is clear that evaluation of the impact of e-cigarettes must continue for the understanding, awareness and safety of our youth as there are important considerations beyond what is depicted in the media and advertising.

\* The full report: [www.e-cigarettes.surgeongeneral.gov/resources.html](http://www.e-cigarettes.surgeongeneral.gov/resources.html)

\*\* The full analysis: [www.fda.gov/news-events/publichealthfocus/ucm173146.htm](http://www.fda.gov/news-events/publichealthfocus/ucm173146.htm).

