Understanding the 2016 Surgeon General’s Report on Youth and Electronic Cigarettes: What Clinicians Need to Know

In December 2016, US Surgeon General Vivek Murthy, MD MBA released a report about youth and electronic cigarettes (e-cigarettes). The AAP Julius B. Richmond Center of Excellence has created this fact sheet to help pediatric clinicians interpret the findings of the Surgeon General’s Report and incorporate the information into patient care.

Key Findings

After a comprehensive review of current literature, the report made the following conclusions:

1. The landscape of e-cigarettes and other electronic nicotine delivery systems is diverse, and these products are known by many different names.
2. E-cigarette use among youth and young adults is a public health concern, and has increased significantly in recent years.
3. E-cigarettes are the most commonly-used tobacco product among youth, and use of e-cigarettes is associated with use of traditional cigarettes and other tobacco products.
4. E-cigarettes and other products containing nicotine pose a danger for youth, pregnant women and fetuses. Youth use of nicotine, including in e-cigarettes, is unsafe.
5. Secondhand exposure to e-cigarette aerosol is not harmless; it contains nicotine and other harmful constituents. The nicotine contained in aerosol can cause addiction and have neurotoxic effects on the adolescent brain.
6. E-cigarettes are advertised and marketed to youth using the same tactics the tobacco industry has used to promote cigarette smoking in the past.
7. Evidence-based tobacco control interventions should be used to protect youth from e-cigarette use and exposure.

Recommendations for Patient Care

Screen: Ask about tobacco use, including use of e-cigarettes, as a part of routine clinical screening with every patient and family.

Ask the Right Questions: Because e-cigarettes are known by many different names, it’s important to use a specific e-cigarette screening question.

One example is: “Do you use any kind of tobacco, such as cigarettes? What about electronic smoking devices like e-cigarettes or vape pens?”

Talk with Teens Honestly: Counsel about the harms of e-cigarette use, and stress the importance of avoiding these products. Explain that e-cigarettes contain nicotine and cancer-causing chemicals; they are not “just water vapor.” Discuss the effects of e-cigarettes on brain function, and explain that nicotine addiction happens quickly, and that users have an increased risk of using other tobacco products, including cigarettes.
When counseling, choose messages that resonate with adolescents: consider talking about the expense of e-cigarettes, or the loss of freedom that occurs when you’re addicted to nicotine. Talk with them about the tobacco industry’s efforts to target them with misinformation and advertising.

For both users and non-users, mention the dangers of secondhand e-cigarette exposure, and advise teens to avoid secondhand e-cigarette aerosol, and to discourage others from using e-cigarettes around them. For teens who babysit or have young siblings, explain that e-liquid is poisonous and can be fatal if ingested. Ensure that e-liquid is kept in childproof containers, and out of the reach of children.

Some suggestions for starting the conversation include:

- “Can you tell me what you know about e-cigarettes?”
- “I know there’s a lot of confusion out there about e-cigarettes, but I’d like to tell you what I know for sure.”

**Use Evidence-Based Interventions:** Although e-cigarettes are relatively new to the market, there are many evidence-based tobacco interventions that can be applied to e-cigarette use. Consider adapting the US Public Health Service’s “5As” Tobacco Cessation Intervention to guide your conversation with parents and with youth:

- **ASK** about e-cigarette use
- **ADVISE** against e-cigarette use and about avoiding secondhand vapor exposure
- **ASSESS** whether teen is ready to quit using e-cigarettes
- **ASSIST** them in quitting, by setting a quit date and giving them practical advice for a successful quit attempt and for prevention of secondhand exposure by non-users
- **ARRANGE** follow-up to check on the teen’s progress with quitting

**Related Resources**


For more information about electronic cigarettes, including statistics and citations, visit: [http://www2.aap.org/richmondcenter/ENDS.html](http://www2.aap.org/richmondcenter/ENDS.html)

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