



CELEBRATING TOBACCO-FREE  
LIFESTYLES.

---

## **PRESENTATION FOLLOW-UP** RESOURCES

A dense pattern of small, light-colored icons related to e-cigarettes, including bottles, droppers, batteries, and cigarettes, set against a dark red background.

E-CIGARETTES  
"SWEET" DECEPTION

# LINKS TO THE Presentation Content

Below please find a listing of the sources used in the presentation.



**Know the Risks – Office of the Surgeon General, US Department of Health and Human Services, CDC**  
[www.e-cigarettes.surgeongeneral.gov](http://www.e-cigarettes.surgeongeneral.gov)

**The Real Cost – US Department of Health and Human Services**  
[www.therealcost.gov](http://www.therealcost.gov)

**Truth Initiative**  
[www.TruthInitiative.org](http://www.TruthInitiative.org)

**Vox – Understand the News**  
[www.vox.com](http://www.vox.com)

**American Cancer Society Cancer Action Network – YouTube Channel**  
[www.youtube.com/watch?v=6X-RabhxyoyI](http://www.youtube.com/watch?v=6X-RabhxyoyI)

**Science News for Students – Explainer: The nico-teen brain**  
[www.sciencenewsforstudents.org/article/explainer-nico-teen-brain](http://www.sciencenewsforstudents.org/article/explainer-nico-teen-brain)

**NIH – National Institute on Drug Abuse – Teens and E-cigarettes**  
<https://www.drugabuse.gov/related-topics/trends-statistics/infographics/teens-e-cigarettes>

**FDA – U.S. Food & Drug Administration – Tobacco Products**  
[www.fda.gov/TobaccoProducts/NewsEvents/ucm605729.htm](http://www.fda.gov/TobaccoProducts/NewsEvents/ucm605729.htm)

**Data, information, graphics, and videos were pulled from the listed sites and online resources.**

**Medium - How Juul Exploited Teens' Brains to Hook Them on Nicotine**  
[www.medium.com/s/youthnow/how-juul-exploited-teens-brains-to-hook-them-on-nicotine-79b86aabeec3](http://www.medium.com/s/youthnow/how-juul-exploited-teens-brains-to-hook-them-on-nicotine-79b86aabeec3)

**THE REAL COST OF VAPING**  
**Understanding the dangers of teen e-cigarette use GRADES 9-12**  
[http://www.scholastic.com/youth-vapingrisks/?eml=snp/e/20181116/////FDA/////&ET\\_CID=20181116\\_SNP\\_FDA\\_ACQ\\_24449&ET\\_RID=1414772458](http://www.scholastic.com/youth-vapingrisks/?eml=snp/e/20181116/////FDA/////&ET_CID=20181116_SNP_FDA_ACQ_24449&ET_RID=1414772458)

**Scholastic**  
[www.scholastic.com/youthvapingrisks/](http://www.scholastic.com/youthvapingrisks/)

**Tobacco Prevention Toolkit - Stanford University**  
<https://med.stanford.edu/tobaccopreventiontoolkit/E-Cigs.html>

**Indiana Youth Institute**  
[www.iyi.org/](http://www.iyi.org/)

**Campaign for Tobacco-Free Kids**  
[www.tobaccofreekids.org](http://www.tobaccofreekids.org)

**Taking Down Tobacco**  
<http://takingdowntobacco.org>

**Indiana Department of Health Tobacco Prevention and Cessation Commission**  
[www.in.gov/isdh/tpc](http://www.in.gov/isdh/tpc)

**For questions and additional resources contact:**

**VOICE**  
 5190 N High School Rd  
 Indianapolis, IN 46254

317-299-7831  
[info@voiceindiana.org](mailto:info@voiceindiana.org)



# CONNECT

Connect with VOICE at [www.voiceindiana.org](http://www.voiceindiana.org)  
and follow us on social media for exclusive  
invitations to upcoming events and VOICE  
branded campaign alerts.



## Follow VOICE on Social Media

@voiceindiana

facebook  
instagram  
twitter  
snap

[youtube.com/c/  
voiceindianaorg](https://www.youtube.com/c/voiceindianaorg)



In the past year alone,  
**vaping** among  
**high schoolers** has increased **78%**

CENTER FOR  
TOBACCO  
PRODUCTS



How much **do you know** about the epidemic?

**E-cigarettes, also known as “vapes,” are becoming increasingly popular among teens.<sup>1,2</sup>**

In fact, they are the most commonly used tobacco product among both middle and high school students. You may have already seen or heard about students vaping in your school, but it is important to know that certain types of vapes can be used very discreetly.

**SOME TEENS REPORT USING E-CIGARETTES IN SCHOOL BATHROOMS AND EVEN IN THE CLASSROOM.**

Learning more about the different types of e-cigarette products is an important first step in addressing youth vaping.

## DID YOU KNOW:

E-cigarettes come in a variety of shapes and sizes and may not look like a tobacco product, which can make them hard to spot.<sup>3</sup>

Some devices popular among teens—like JUUL and myblu—are as small as a USB flash drive and even look like one.

Certain products emit very low amounts of aerosol or “vapor,” which makes them easier to use discreetly than combustible cigarettes.

Most e-cigarettes contain nicotine, the same highly addictive drug in cigarettes.<sup>4,5</sup> Some e-cigarettes may contain as much nicotine as a pack of 20 regular cigarettes.<sup>3</sup>

## A Big Problem... A SMALL DEVICE



Over  
**10.7**  
**million**  
youth aged 12–17  
are at-risk for using  
e-cigarettes.<sup>6,7</sup>



# Many teens have dangerous misperceptions that lead them to believe that vaping is harmless.

## Common myths believed about vaping, along with the facts.

"It's just flavoring."

Vapes get their flavors from chemicals. While these flavorings are safe to eat in food, they're not safe to inhale. Inhaling flavor chemicals can harm your lungs.<sup>11</sup>

Want an example?

Some buttery-flavored vapes like caramel contain diacetyl and acetoin. Inhaling diacetyl has been linked to popcorn lung, a lung disease that doesn't have a cure.<sup>11</sup>

"It's just water vapor."

But it's not.

Vaping can expose the user's lungs to harmful chemicals like formaldehyde, diacetyl and acrolein, as well as toxic metal particles like nickel, tin and lead.<sup>4,8-10,11-13</sup>

"I don't have an addictive personality—I won't get hooked on vapes."

Some vapes that claim they are nicotine-free are not.<sup>8,17-22</sup>

"My vape says it's nicotine-free. There's no way I'll become addicted."

Vaping delivers nicotine to the brain in as little as 10 seconds.<sup>14,15</sup>

A teen's brain is still developing, making it more vulnerable to nicotine addiction.<sup>16</sup>

"Nicotine isn't that bad for me."

Nicotine exposure during the teen years can disrupt normal brain development. It can have long-lasting effects, like increased impulsivity and mood disorders.<sup>23-25</sup>

"Just because I vape doesn't mean I'm going to smoke cigarettes."

Research shows teens who vape are more likely to try smoking cigarettes.<sup>26</sup>

## FDA's Efforts to Curb Youth E-Cigarette Use

FDA is committed to protecting youth from the dangers of e-cigarettes. In addition to our national peer-to-peer public education campaign called "The Real Cost," we're joining forces with Scholastic to provide teachers and school administrators with the resources they need to educate their students about e-cigarettes.

Together, we've created a **free lesson plan and research activity** for teachers to educate their students on the health risks of e-cigarette use. Please visit the [Scholastic youth-vaping-risks site](https://www.scholastic.com/youth-vaping-risks) to access these resources.

## Share This Information



Please share this infographic with other teachers and school administrators. In addition, if you'd like to learn more about e-cigarettes, check out these resources:

- » [Surgeon General Fact Sheet](#) – E-cigarette use among youth and young adults
- » [Parent Tip Sheet](#) – How parents can talk with their teen about vaping
- » [CDC Infographic](#) – E-cigarette ads and youth infographics
- » [Smokefree Teen](#) – If you know a teen who is addicted to any tobacco product, including cigarettes and e-cigarettes, there are resources to help them quit

## Questions/Answers

# Frequently Asked Questions

---

From the CDC - Center for Disease Control and Prevention - Website

[www.cdc.gov/tobacco/basic\\_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html](http://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html)

## 01 What's the Bottom Line on the Risks of E-cigarettes for Kids, Teens, and Young Adults?

- The use of e-cigarettes is unsafe for kids, teens, and young adults.
- Most e-cigarettes contain nicotine. Nicotine is highly addictive and can harm adolescent brain development, which continues into the early to mid-20s.
- E-cigarettes can contain other harmful substances besides nicotine.
- Young people who use e-cigarettes may be more likely to smoke cigarettes in the future.

## 02 What Are E-cigarettes?

- Electronic devices that heat a liquid and produce an aerosol, or mix of small particles in the air.
- E-cigarettes come in many shapes and sizes. Most have a battery, a heating element, and a place to hold a liquid.
- Some e-cigarettes look like regular cigarettes, cigars, or pipes. Some look like USB flash drives, pens, and other everyday items. Larger devices such as tank systems, or "mods," do not look like other tobacco products.
- E-cigarettes are known by many different names. They are sometimes called "e-cigs," "e-hookahs," "mods," "vape pens," "vapes," "tank systems," and "electronic nicotine delivery systems (ENDS)."
- Using an e-cigarette is sometimes called "vaping" or "JUULing."

## 03 How Do E-cigarettes Work?

- E-cigarettes produce an aerosol by heating a liquid that usually contains nicotine, flavorings, and other chemicals that help to make the aerosol.
- The liquid used in e-cigarettes often contains nicotine and flavorings. This liquid is sometimes called "e-juice," "e-liquid," "vape juice," or "vape liquid."
- Users inhale e-cigarette aerosol into their lungs. Bystanders can also breathe in this aerosol when the user exhales it into the air.
- E-cigarette devices can be used to deliver marijuana and other drugs.

## 04 Aren't E-cigarettes Safer Than Cigarettes?

- E-cigarettes expose users to fewer harmful chemicals than burned cigarettes.<sup>1</sup> But burned cigarettes are extraordinarily dangerous, killing half of all people who smoke long-term.
- The use of any tobacco product, including e-cigarettes, is unsafe for young people.





## 05

### What Is JUUL?

- JUUL is a brand of e-cigarette that is shaped like a USB flash drive. Like other e-cigarettes, JUUL is a battery-powered device that heats a nicotine-containing liquid to produce an aerosol that is inhaled.
- All JUUL e-cigarettes have a high level of nicotine. According to the manufacturer, a single JUUL pod contains as much nicotine as a pack of 20 regular cigarettes.
- News outlets and social media sites report widespread use of JUUL by students in schools, including classrooms and bathrooms.
- Although JUUL is currently the top-selling e-cigarette brand in the United States, other companies sell e-cigarettes that look like USB flash drives. Examples include the MarkTen Elite, a nicotine delivery device, and the PAX Era, a marijuana delivery device that looks like JUUL.

## 06

### Why Is Nicotine Unsafe for Kids, Teens, and Young Adults?

- Most e-cigarettes contain nicotine—the addictive drug in regular cigarettes, cigars, and other tobacco products.
- Nicotine can harm the developing adolescent brain. The brain keeps developing until about age 25.
- Using nicotine in adolescence can harm the parts of the brain that control attention, learning, mood, and impulse control.
- Each time a new memory is created or a new skill is learned, stronger connections – or synapses – are built between brain cells. Young people's brains build synapses faster than adult brains. Nicotine changes the way these synapses are formed.
- Using nicotine in adolescence may also increase risk for future addiction to other drugs.

## 07

### What Are the Other Risks of E-cigarettes for Kids, Teens, and Young Adults?

- Scientists are still learning about the long-term health effects of e-cigarettes.
- Some ingredients in e-cigarette aerosol could also be harmful to the lungs in the long-term. For example, some e-cigarette flavorings may be safe to eat but not to inhale because the gut can process more substances than the lungs.
- Defective e-cigarette batteries have caused some fires and explosions, a few of which have resulted in serious injuries.
- Children and adults have been poisoned by swallowing, breathing, or absorbing e-cigarette liquid through their skin or eyes.

## Test Your Knowledge:

**1. True or False?** More than 6 of 10 teens believe that occasional use of e-cigarettes causes only little or some harm.

**True.** More than 60 percent of teens believe that occasional use of e-cigarettes causes only little or some harm.

**2. Select One:** Which of the following is a risk to youth and young adults who use nicotine?

- A. Depression, anxiety, & other mood disorders
- B. Nicotine addiction
- C. Difficulty paying attention & concentrating
- D. Reduced impulse control
- E. All of the above

**The correct response is F.** Nicotine can harm brains as they develop—which continues until age 25 or older! When youth and young adults expose their brains to nicotine, they are vulnerable to nicotine addiction, may have trouble paying attention and concentrating, and experience mood disorders and reduced impulse control. Nicotine may alter the way their brains function for the rest of their lives.

**3. Select One:** Your brain continues to develop until about which age?

- A. 12
- B. 18
- C. 21
- D. 25
- E. 30

**The correct response is D.** Brain development begins during the growth of the fetus in the womb and continues through childhood and to about age 25.

**4. Select One:** Which of these tobacco products is most commonly used by U.S. high school students?

- A. Cigarettes
- B. E-cigarettes
- C. Little cigars
- D. Hookah

**The correct response is B.** Both middle and high school students use e-cigarettes more than any other tobacco product.

**5. Select One:** Which of the following are reasons youth and young adults use e-cigarettes?

- A. Availability of e-cigarettes in candy, fruit, and other flavors
- B. Belief that e-cigarettes are safe
- C. Curiosity
- D. All of the above

**The correct response is D.** Young people use e-cigarettes because they are curious about them, like the flavors e-cigarettes contain, and believe e-cigarettes are safer than regular cigarettes.

This quiz and more: Know the Risks: E-cigarettes and Young People <https://e-cigarettes.surgeongeneral.gov/getthefacts.html>