



# YOUTH TOBACCO & NICOTINE USE TOOLKIT

**INFORMATION & RESOURCES ABOUT ELECTRONIC NICOTINE  
DELIVERY SYSTEMS, VAPES, AND OTHER FORMS OF TOBACCO USE**



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## TFCC CONTACT INFORMATION

The Tobacco Free Community Coalition (TFCC) is made up of representatives from local organizations and businesses who work together to encourage tobacco-free living in our community.



This toolkit is available online at [www.TJHD.org](http://www.TJHD.org).

For more information about this toolkit, please email TFCC at [CvilleTFCC@gmail.com](mailto:CvilleTFCC@gmail.com).

*Disclaimer: Information provided in this toolkit is meant to be for informational purposes only. The information in this toolkit does not reflect the official position of the agencies who supported its creation.*

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# PURPOSE OF YOUTH TOBACCO USE TOOLKIT

Since the introduction of electronic nicotine delivery systems (ENDS) in 2006, the United States has seen a rapid increase of electronic cigarettes (e-cigarettes) and other vaping devices used among our youth. ENDS products include e-cigarettes, vapes, vape-pens, mods, electronic smoking devices, and JUULs. The Tobacco Free Community Coalition (TFCC) created this toolkit in response to the community and schools' requests for more information and resources pertaining to ENDS.

The Youth Tobacco Use Toolkit provides resources for addressing youth ENDS use and aims to prevent middle and high school students' use of tobacco and nicotine. Parents, teachers, school administrators, and students can use this toolkit as a resource for research, school curriculum, parent education, and cessation resources.

New electronic nicotine delivery systems, such as Suorin Drop and JUULs, have made stopping tobacco and nicotine use more challenging. The design of ENDS has continued to evolve over time. The most current ENDS are sleek, emit limited odor, and can be easily hidden. Flavors, like fruit and candy, make them appealing to youth.

In this toolkit, TFCC provides information on:

- The definitions of current electronic nicotine delivery systems (ENDS)
- Data demonstrating the surge in youth ENDS/e-cigarette use
- Overview of other tobacco products
- Virginia legislation regarding tobacco
- Resources and tools for parents, schools, and students

## BACKGROUND

Despite the progress we've made, tobacco is still the leading cause of preventable deaths in the United States. Tobacco kills 480,000 people every year in the United States. Current electronic nicotine delivery systems (ENDS) use – also known as “vaping,” JUULing and/or Electronic Smoking Devices (ESDs) – among middle and high school students continues to increase, according to the 2019 National Youth Tobacco Survey. This survey is conducted jointly by the Centers for Disease Control and Prevention (CDC) and the U.S. Food and Drug Administration (FDA) yearly.<sup>1</sup>

In 2019, over 6 million middle and high school students were current users of ENDS (current use is defined as use within the past 30 days), which increased from 3.6 million in 2018.<sup>1</sup> The FDA Commissioner and the Surgeon General have declared youth electronic cigarettes (e-cigarette) use an epidemic.<sup>2</sup>

Use this toolkit to learn more about the latest trends in youth ENDS use or if you or someone you know is using ENDS.

# WHAT ARE ELECTRONIC NICOTINE DELIVERY SYSTEMS (ENDS)?

## Electronic nicotine delivery systems (ENDS)

ENDS, also known as e-cigarettes, vapes, vape-pens, mods, electronic smoking devices, and JUULs, are battery operated devices that allow the user to inhale an aerosol (NOT a harmless water vapor) containing nicotine, flavorings, and other harmful toxins.<sup>3</sup>

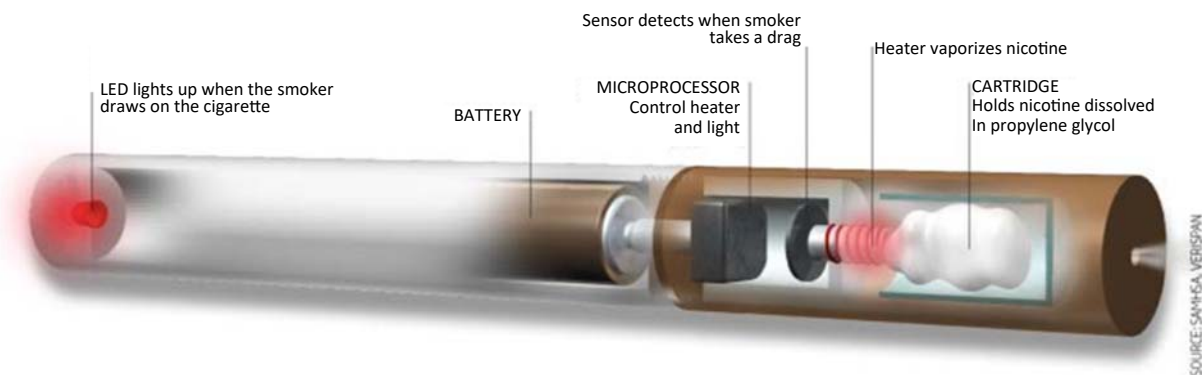


All e-cigarettes have essentially the same three main components:<sup>4</sup>

1. The battery, which are either rechargeable or single use (disposable)
2. The cartridge, which contains the e-liquid
3. The microprocessor, which heats up the e-liquid

### Smoke without fire

Suck on an e-cigarette and it produces a cloud of nicotine-carrying vapor with none of the toxic by-products of burning tobacco



How are ENDS regulated by the FDA?

Check out [here](#) to learn more

## Pod-Based Systems

A pod-based vape is based on a two-part system: a pod filled with vape/e-juice that snaps into a small battery.

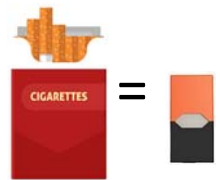
### JUUL (pronounced "jewel")



The most popular e-cigarette currently is JUUL.

JUUL was introduced into the market in 2017, since then JUUL has dominated nearly 75% of the e-cigarette market. JUULs are manufactured as closed pod systems and are not intended to be modified.<sup>8</sup>

A JUUL pod (the cartridge that contains the e-liquid) has at least as much nicotine as a pack of cigarettes (20 cigarettes).<sup>9</sup>



Besides nicotine, JUUL pods contain ingredients that we know are harmful like benzoic acid, glycerol, propylene glycol and other chemicals like natural oils, extracts, and flavors.<sup>9</sup>

### New Pod-Based Systems

Suorin Drop: a water-drop shaped vape device that can be filled with any flavored e-liquid.



Key FOB Vaporizer: Can be carried in a pocket or keyring.

Looks identical to a car key FOB where you press the release button and the cartridge springs out.

## E-Liquid/E-Juice



E-liquid (also known as e-juice and vape juice) is a flavored liquid used in ENDS/e-cigarettes. E-liquid almost always contain nicotine.

E-liquids are made up of chemicals including nicotine, propylene glycol, glycerin, and flavorings. As of 2018, there were over **15,600** different e-cigarette flavors on the market.<sup>6</sup>

A study from Brigham Young University looking at e-liquid samples found that samples labeled 18 mg/mL of nicotine actually ranged from 11.6 to 27.4 mg/mL of nicotine. **Nicotine was detected in 91.4% of samples labeled as having 0 mg/mL of nicotine.**<sup>7</sup>



## Nicotine

Almost all tobacco and ENDS products contain nicotine, a **highly** addictive stimulant.

A couple of key points about nicotine:

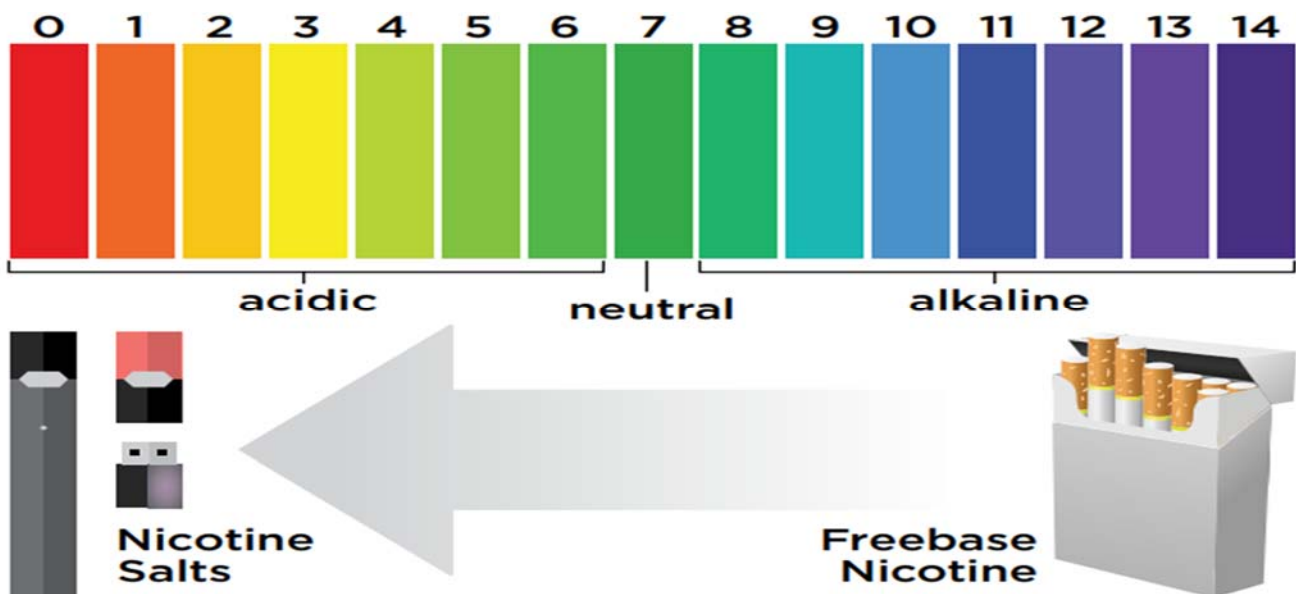
- The human brain continues to develop until the age of 25. Nicotine can have long-lasting effects on brain development, making it harder to concentrate, learn, and control impulses.
- Youth whose brains are exposed to nicotine are more likely to use other substances.

## Nicotine Salts

Nicotine salts, also known as nic salt, are comprised of the same nicotine found in its natural state in tobacco leaves. Nicotine salts are made by mixing pure nicotine with benzoic acids, which reduces the PH level of the nicotine solution, resulting in less irritation. This allows the manufacturers to increase the nicotine level without irritation to the throat. Nicotine salt e-liquid enters the bloodstream faster than traditional e-liquid.<sup>24</sup>

Today's tobacco companies have added ingredients designed to make the products more user-friendly and addictive such as:<sup>16</sup>

- More nicotine to the products;
- Chemicals to increase how fast the nicotine reaches the brain
- Ingredients like sugar to make tobacco smoke easier to inhale.



## Nicotine Addiction and Nicotine Withdrawal

Nicotine addiction looks different from person to person. Even if a person only uses tobacco or ENDS every once in a while, they can experience nicotine addiction.

Signs of nicotine addiction include the following: strong cravings, going out of the way to get “a hit,” feeling anxious or irritable if unable to use ENDS, and continuing to use ENDS until it is hard to stop. Signs that a body is withdrawing from nicotine include: cravings, agitation and anxiety, increased appetite, nausea, feeling sad or irritable, headaches, and trouble sleeping. Withdrawal symptoms usually go away within a few weeks. Medication and changing your routine may help you manage withdrawal. If you are having trouble managing symptoms you should consult your healthcare provider.

### Signs of Nicotine Withdrawal



Cranky or Irritable



Trouble Sleeping



Lightheaded



Nausea



Increased Appetite



Weight Gain



Difficulty Concentrating



Headache

## E-Cigarette or Vaping Product Use-Associated Lung Injury

This lung injury, referred to as EVALI, has had serious health implications.

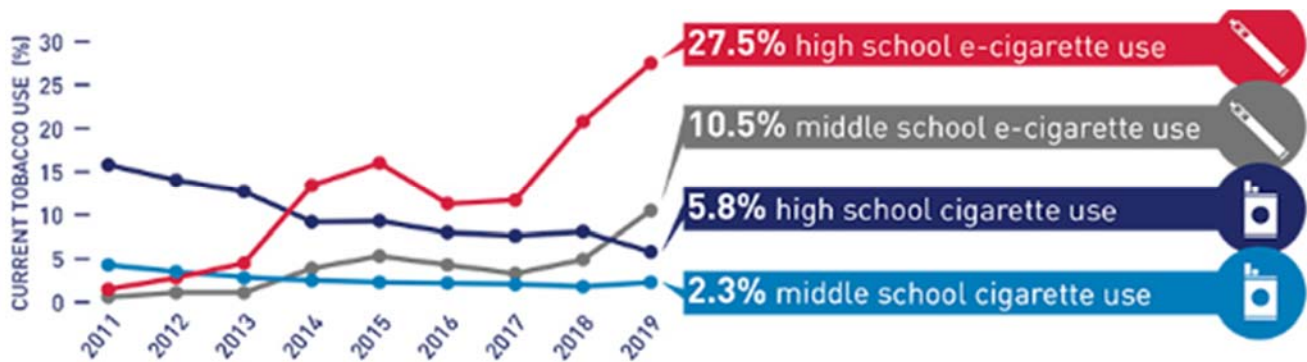
- As of December 2019, a total of 2,506 hospitalizations and 54 deaths related to EVALI were reported to the CDC
- 82% of patients hospitalized with EVALI reported THC-containing product use
- Vitamin E acetate is strongly linked to the EVALI outbreak
- To see updated information on the CDC's investigation, [visit this website](#).



# WHY ARE WE WORRIED ABOUT ENDS?

## Increased Use Among Youth

Overall tobacco use has increased. The increase can be attributed to the rise in e-cigarette use. E-cigarette use has increased in both high school and middle school students.<sup>10</sup>



The 2019 National Youth Tobacco Survey shows cigarette smoking at an all-time low among high school students, but dramatic increases in e-cigarette use. These increases in e-cigarette use have reversed progress made in the decline of overall youth tobacco use.

## Why Youth Use E-Cigarettes

Data from the 2016 National Youth Tobacco Survey shows among those who had ever used an e-cigarette, the most commonly selected reason for use were:



**39%** Use by friends or family member



**31%** Availability of flavors such as mint, candy, fruit, or chocolate

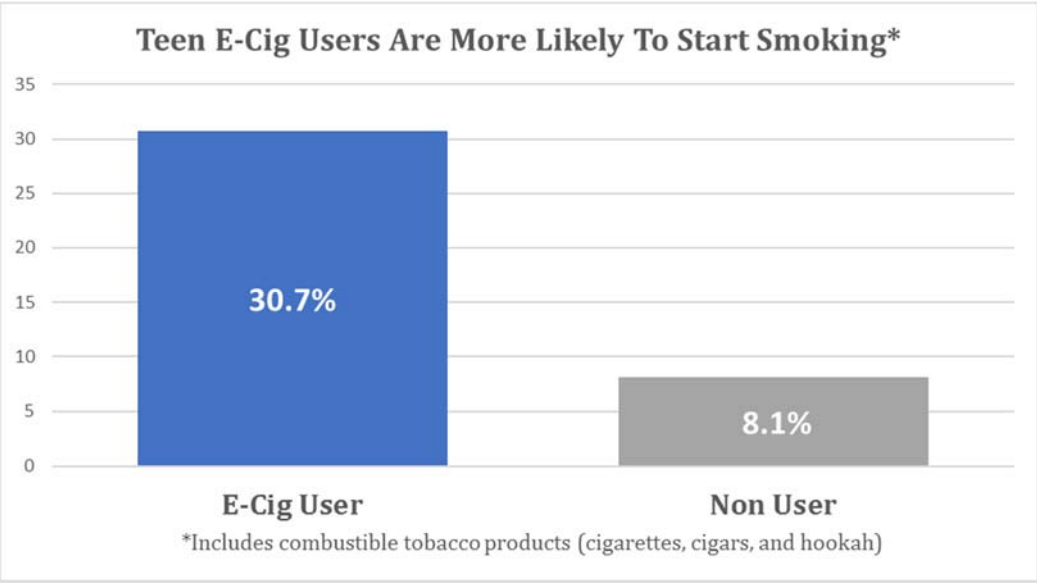


**17%** The belief that they are less harmful than other forms of tobacco such as cigarettes



**DID YOU KNOW?**

6.2 million students in the United States reported using e-cigarettes in 2019.<sup>11</sup>



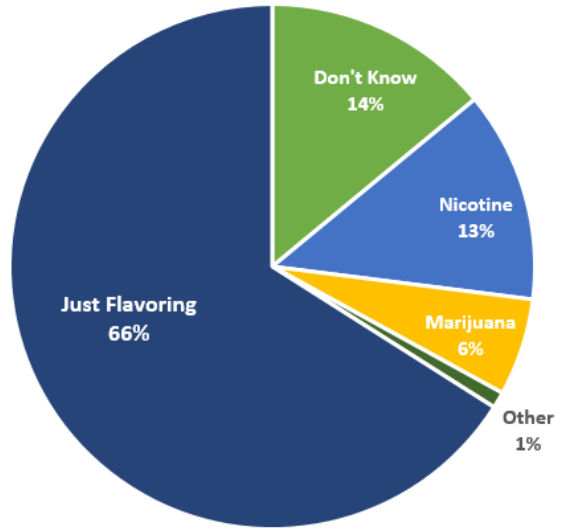
According to the National Institutes of Health (NIH), youth who use e-cigarettes are approximately 4 times more likely to use conventional (combustible) cigarettes than a non e-cigarette user.<sup>12</sup>

**Inaccurate Knowledge of Products**

Many young users are unaware the products they are using almost always contain nicotine. Approximately two-thirds of teens incorrectly reported e-cigarettes as being comprised of mostly flavoring.<sup>12</sup>

It is important to note that manufacturers do **NOT** have to report e-cigarette ingredients, so users do not know what is actually in these products.

**What Teens Believe is in Their E-Cigarette**



# OTHER TOBACCO PRODUCTS OVERVIEW

## Cigarettes

Contain ~600 ingredients. When burned, cigarettes create more than 7,000 chemicals. At least 69 of the ingredients are known to cause cancer and many are poisonous.

## Smokeless Tobacco

The amount of nicotine absorbed in one 30-minute “dip” is equivalent to the amount of nicotine in 3 cigarettes.

## Cigarillos and Cigars

Cigars are similar to cigarettes, but they are wrapped in a substance that contains tobacco (and nicotine) instead of just paper.

Cigar smokers both inhale nicotine and absorb it through the lining of their mouths. Cigarillos are typically cheap and flavored which make them appealing to youth.

## Hookah

Hookahs are waterpipes that are used to smoke specially made tobacco mixtures that come in different flavors. A typical hookah session involves 100 - 200 puffs, while an average cigarette is 20 puffs.<sup>18</sup>

## Orbs, Sticks and Strips

Dissolvable tobacco products made of finely milled tobacco. They dissolve in your mouth and do not require spitting. Last from 2 minutes - 30 minutes depending on the product. Contain 1.2 mg - 2.4 mg nicotine per dissolvable tobacco product.

## Heated Tobacco Products

Heated tobacco products are sometimes marketed as “heat-not-burn” products. Heated tobacco products are similar to e-cigarettes, however, heat-not-burn heat the actual tobacco whereas e-cigarettes heat an e-liquid. Both products contain high levels of nicotine.

IQOs is currently the only heat-not-burn tobacco product available in the US as of December 2019.



TOBACCO



# VIRGINIA LEGISLATION



## **HB 2384—Tobacco-Free Schools:<sup>19</sup>**

This bill requires every school board, as of July 1, 2019, develop and implement a policy that prohibits the use and distribution of tobacco products on school buses, school property, and at any off- or on-site school activity.

## **HB 2748—Tobacco 21:<sup>20</sup>**

This bill requires the minimum age to purchase tobacco products (including traditional cigarettes, ENDS products, smokeless tobacco and all nicotine products ) to increase to the age of 21 as of July 1, 2019.



## **HB 1881—Vaping Prevention Education in Schools:<sup>21</sup>**

As of July 1, 2019, this bill requires the Virginia Foundation for Healthy Youth (VFHY) to develop educational materials concerning health and safety risks of using tobacco and e-cigarettes. This will be distributed to every elementary and secondary school in VA.

## **§ 15.2-2824—Indoor Clean Air Act:<sup>22</sup>**

Effective December 1, 2009, this act was amended to be a statewide ban on a variety of locations including some workplaces and restaurants and bars except for the latter two where there is a structurally separate area that also has separate ventilation.



## **§ 46.2-810.1 — Smoking in vehicle with a minor present:<sup>23</sup>**

Effective July 1, 2016, it is unlawful for a person to smoke in a motor vehicle when a minor under the age of eight is present.

## RESOURCES

### SCHOOLS

#### **TOBACCO AND NICOTINE FREE SCHOOL POLICIES:**

##### **Virginia Foundation for Healthy Youth 24/7 Campaign:**

Initiative to help all schools in Virginia create comprehensive tobacco-free policies.

<https://247campaignva.com/>

# RESOURCES (CONT.)

## SCHOOL LESSON PLANS:

### **Tobacco Prevention Tool Kit - Stanford Medicine:**

Theory-based and evidence-informed resources created by educators, parents, and researchers aimed at preventing student use of tobacco and nicotine.

<https://med.stanford.edu/tobaccopreventiontoolkit.html>

### **Virginia Foundation for Healthy Youth:**

The Dangers of Other Tobacco Products is a module to provide prevention education to youth in middle school and high school.

<https://www.vfhy.org>

### **ASPIRE – University of Texas:**

Bilingual online tool that helps middle and high school students learn about being tobacco free.

<https://www.mdanderson.org>

### **Scholastic and FDA Partnership: The Real Cost of Vaping:**

Lesson and research activity to educate students on the health risks of vaping.

<http://www.scholastic.com/youthvapingrisks>

### **SmokeSCREEN:**

Web-based videogame for 10 to 16 year olds focused on prevention of tobacco use by addressing decision making challenges faced by youth.

<https://www.smokescreengame.org>

### **CATCH:**

Presentation to provide parents and teachers with information about e-cigarettes and JUULs and what can be done to combat it.

<https://catchinfo.org>

### **Campaign for Tobacco-Free Kids:**

Free online courses to get knowledge, skills, and tools needed to fight tobacco use in your community.

<http://takingdowntobacco.org>

## RESOURCES (CONT.)

### **Centers for Disease Control and Prevention:**

HECAT: Module T – Tobacco Use: Prevention Curriculum with tools to analyze and score curricula that are intended to promote a tobacco-free lifestyle.

<https://www.cdc.gov>

### **Tar Wars:**

Developed through the AAFP (American Academy of Family Physicians), this is a tobacco free education program primarily for fourth/fifth –grade students.

<https://www.aafp.org>

## **TOOLKITS:**

### **Address Student Use of E-cigarettes and Other Vaping Products:**

Developed by Minnesota Department of Health addressing ENDS products in school.

<https://www.health.state.mn.us>

### **Centers for Disease Control and Prevention: Know the Risks: A Youth Guide to E-Cigarettes:**

CDC's Office on Smoking and Health (OSH) developed this presentation to educate youth on e-cigarettes.

<https://www.cdc.gov/tobacco>

### **Partnership for Drug-Free Kids Vaping:**

What You Need to Know and How to Talk with Your Kids.

<https://drugfree.org>

### **Campaign for Tobacco-Free Kids:**

Free online courses to get knowledge, skills, and tools needed to fight tobacco use in your community.

<http://takingdowntobacco.org>

# RESOURCES (CONT.)

## PARENTS

### **Partnership for Drug Free Kids:**

What You Need to Know and How to Talk with Your Kids About Vaping: Toolkit with resources for parents about vaping and the how to talk to kids about the dangers of vaping.

<https://drugfree.org>

### **CATCH:**

Presentation to provide parents and teachers with information about e-cigarettes and JUULs and what can be done to combat it.

<https://catchinfo.org>

### **Surgeon General:**

Know the Risks: E-Cigarettes and Young People: Surgeon General's 2016 report on e-cigarette use in youth and young adults with data and information about how to talk to your teen about it.

<https://e-cigarettes.surgeongeneral.gov>

### **Resources to help Quit:**

Quitline Info - 1-800-QUIT-NOW—Free information and coaching for VA residents wanting to quit using tobacco.

<https://quitnow.net/virginia>

## STUDENTS

### **Surgeon General: Know the Risks:**

E-Cigarettes and Young People

<https://e-cigarettes.surgeongeneral.gov>

## RESOURCES (CONT.)

### **1-800-QUIT-NOW:**

Free state tobacco Quitline

<https://quitnow.net/virginia>

### **Smokefree.gov**

Quitting resource aimed at teens

<https://teen.smokefree.gov>

### **Rethink Vape:**

Eastern Virginia Medical School Campaign

<http://rethinkvape.org>

### **Truth Initiative:**

Youth Smoking Prevention Campaigns

<https://truthinitiative.org>

### **Calling it Quits:**

Resources for teenagers on vaping and nicotine cessation

<https://www.publichealthdegrees.org>

## INFOGRAPHICS & FLYERS

### **ENGLISH:**

- Electronic cigarettes what's the bottom line ([www.cdc.gov](http://www.cdc.gov)).
- Second hand smoke in multiunit housing. ([www.cdc.gov/media](http://www.cdc.gov/media)).
- Shows how nicotine harms brain development ([www.cdc.gov/tobacco](http://www.cdc.gov/tobacco)).
- Current trending topics and info on how communities can help ([www.cadca.org](http://www.cadca.org)).
- Different types of E-cigarettes– targeted for parents and teachers ([www.cdc.gov](http://www.cdc.gov)).
- Youth exposure to advertising and E-cigarette use ([www.cdc.gov](http://www.cdc.gov)).

### **SPANISH:**

- Facts about secondhand smoke exposure in multiunit housing ([www.cdc.gov](http://www.cdc.gov)).
- The health effects and risks of using E-cigarettes ([www.cdc.gov/tobacco](http://www.cdc.gov/tobacco)).

# RESOURCES (CONT.)

## MEDIA CAMPAIGNS

### **The Real Cost Campaign:**

FDA's first tobacco prevention campaign geared to educate youth about the harmful effects of tobacco products.

[www.fda.gov/](http://www.fda.gov/)

### **Rescue Agency's campaign: Behind The Haze:**

Ready made campaign to help fight teen vaping built for use in any community in U.S.

<https://rescueagency.com>

### **Facts Over Flavor:**

Video campaign created for teens to gain knowledge about the dangers of vaping.

[www.riester.com](http://www.riester.com)

### **Spot The Vape:**

Educates parents and teens about vapes and health consequences associated with vaping.

[www.safeandsoberparents.com](http://www.safeandsoberparents.com)

### **Ditch JUUL:**

Motivational messages and inspirational stories to help quit teens quit vaping.

[www.thetruth.com/](http://www.thetruth.com/)

## REFERENCES

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