City of Alexandria, Virginia

E-cigarettes, Vaping and JUULing

Substance Abuse Prevention Coalition of Alexandria and Alexandria City Public Schools

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What is vaping and JUULing?



- E-cigarette (noun)
- Vape (verb)
- JUUL (proper noun)
- JUULing (verb)
- Are smoking, vaping and JUULing the same thing?





Examples of e-cigarettes





1-Dry ingredients

(herbs, oil, wax)

2-Wet Ingredients

(liquids)

3-Direct Heat

4-Indirect Heat
(circulating heat air)



Image Source CCO Creative Commons: https://www.fda.gov

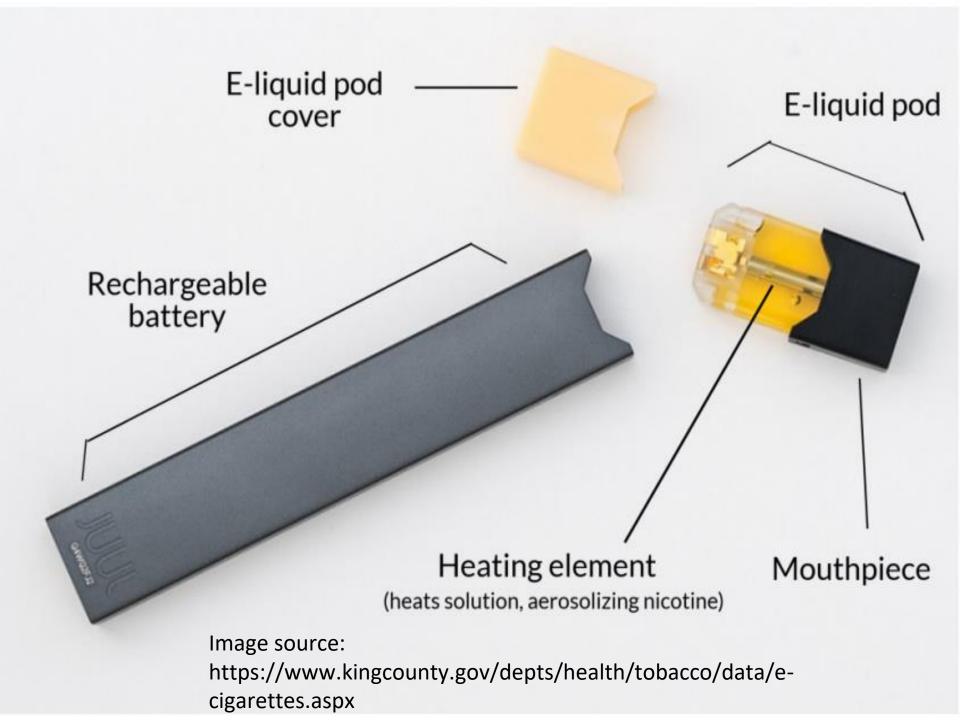
Electronic Nicotine Delivery Systems (ENDS)

Electronic cigarettes, also known as e-cigarettes, e-cigs or Electronic Nicotine Delivery Systems (ENDS), are typically cigarette-shaped batterypowered electronic devices that produce an aerosol that users inhale.

Vaporizing -> Aerosol

Solid state/Liquid/Oil + Heat + Vaporization = Aerosol

Images: CC0 Creative Commons https://www.thoughtco.com/history -of-aerosol-spray-cans-1991231



Vaping is the process... Aerosol is the result

AEROSOL:

Has solid particles

GAS: Does not have solid particles

Condensation + sedimentation

Solid state/Liquid/Oil + Heat + Vaporization = Aerosol

Images: CC0 Creative Commons/ Source: https://www.flickr.com/photos/vaping360/27691253506

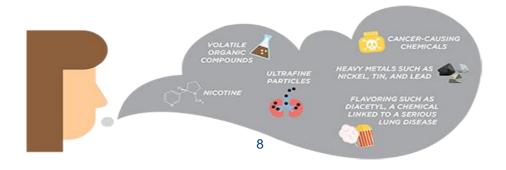


The JUUL device, with its sleek design that resembles a flash drive, is a special hit with teens.

Regulation of E-cigarettes?



- E-cigarettes that say "nicotine-free" may contain nicotine
- In Virginia, use of CBD oil with THC concentration < 0.3% is legal</p>
 - Testing often finds that these products contain more THC
- E-cigarettes are not approved by the FDA as a device to quit smoking
- CDC recommends "e-cigarette, or vaping, products should never be used by youths, young adults, or women who are pregnant"
- Several states have banned the sale of flavored e-cigarettes (WA, OR, MT, MI, NY, RI); MA has banned the sale of all e-cigarettes





Youth Appeal





- Top reasons youth are using flavored e-liquids
 - Use by "friend or family member"
 - Availability of youth-friendly flavors
 - Belief that "they are less harmful than other forms of tobacco such as cigarettes"

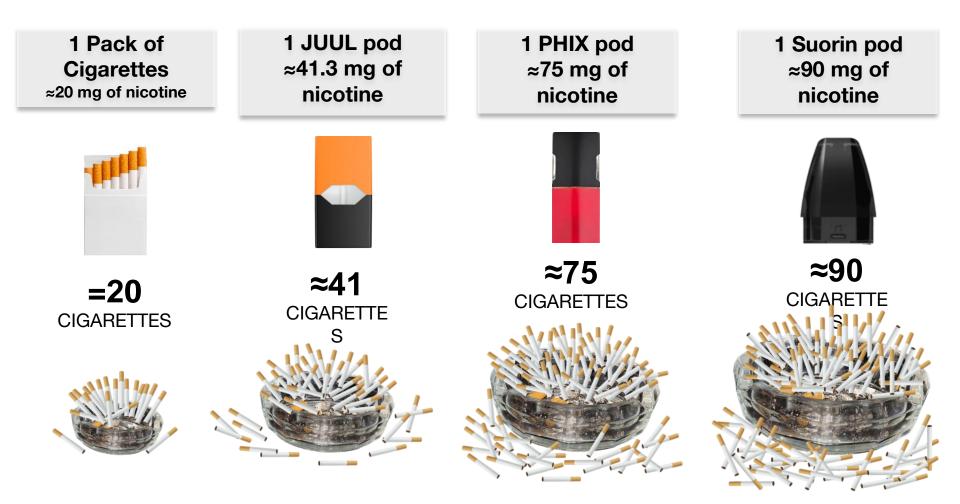


Original slide from Tobacco Prevention Toolkit. Slide unit 6 slide 6. It was edited and adapted for this presentation



tobaccopreventiontoolkit.stanford.edu

ALL PODS CONTAIN HIGH LEVELS OF NICOTINE

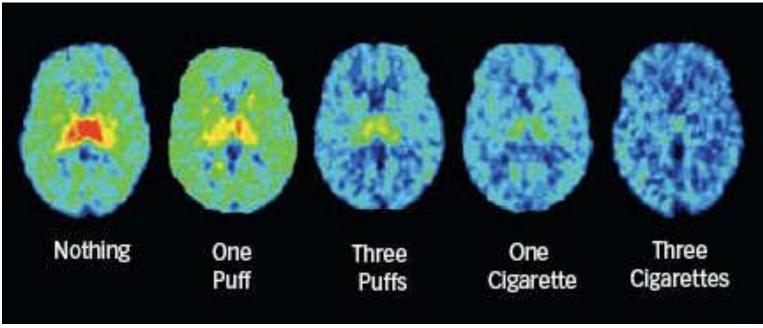


Nicotine in Adolescents



Nicotine Molecule (American Chemical Society)

Just one cigarette changes the brain function





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Democracy Dies in Darkness

Health

Mystery lung illness linked to vaping. Health officials investigating nearly 100 possible cases.



A high school student uses a vaping device in 2018 in Cambridge, Mass.

By Lena H. Sun and Lindsey Bever

August 16, 2019 at 6:26 PM EDT

Cases of lung disease possibly linked to vaping continue to rise. This teen was given a 'second

chance'

By Michael Nedelman, CNN

Updated 12:56 PM EDT, Fri August 30, 2019

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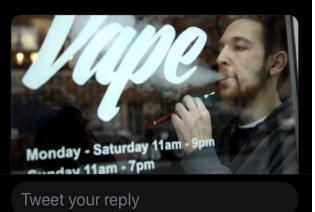
Healthy teen's symptoms baffle doctors (02:17)

(CNN) — US health officials announced Friday that as of August 27, there are at least 215

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Nearly 9 of 10 cases where #Vaping led to people developing a severe lung disease in #Wisconsin involved the use of #THC products, such as waxes or oils, Wisconsin's Department of Health Services said.



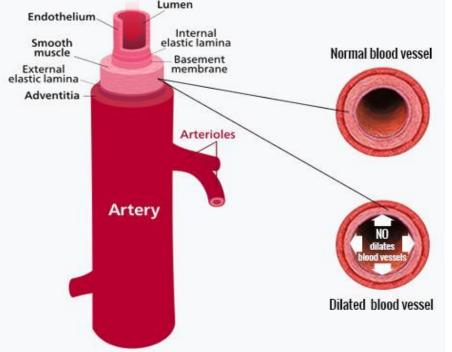
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E-cigarettes affect a person's blood vessels after just one use, study finds

BY CAITLIN O'KANE AUGUST 22, 2019 / 3:09 PM / CBS NEWS

Short Term Effects of Vaping

Inhaling nicotine-free electronic cigarette aerosol for short time impacted endothelial function in healthy nonsmokers

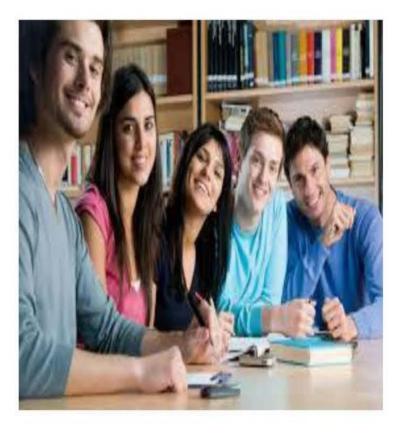


- 20% reduction flow of oxygen
- Post-vaping: blood vessels did not dilate, widen, as much as before

"Acute Effects of Electronic Cigarette Aerosol Inhalation on Vascular Function Detected at Quantitative MRI." Collaborating with Drs. Caporale, Wehrli and Langham were Wensheng Guo, Ph.D., Alyssa Johncola, B.A., and Shampa Chatterjee, Ph.D. August, 2019. *Caporale, August 2019 University of Pennsylvania*

Among Youth, E-cigarette Use May Lead to Conventional Cigarette Use

U.S. adolescents and young adults who had never smoked, but used ecigarettes at baseline, were **8.3 times more likely to progress to cigarette smoking after 1 year than nonusers** of e-cigarettes

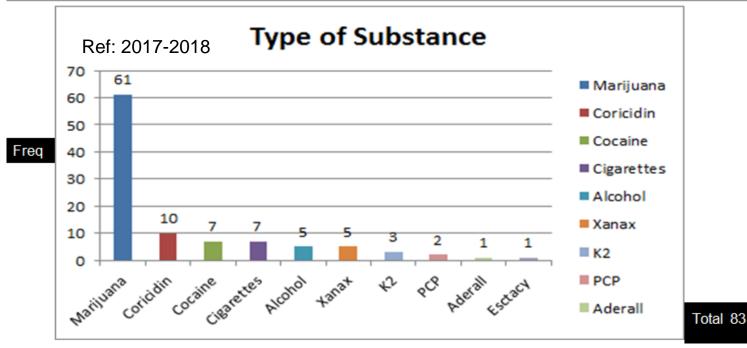


Alexandria Data – Alexandria City Public Schools



From September 2019 to current date: 83% of students caught with using or in possession of substances reported current or past e-cig smoking (25 of 30 cases).

Type of Drug Use (Discipline and Self-disclosed)





Information gathered from screening and assessments K-12 in a period of 15 month. Source: Disciplinary incidents and self-disclosed.

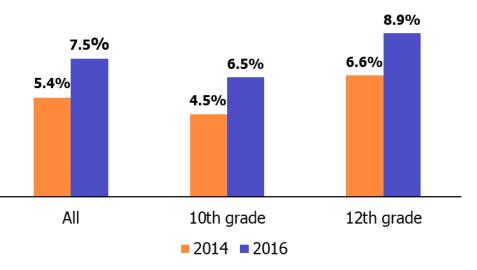


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Alexandria Data – Youth Risk Behavior Survey



Percent of ACPS students surveyed that reported current e-cigarette use (Past 30 days)



- In 2016, 7.5% of Alexandria City Public Schools students surveyed reported current ecigarette use
- In 2014, 5.4% of Alexandria City Public Schools students surveyed reported current ecigarette use



SAPCA and ACPS Actions to Address Vaping and JUULing



 Presentations to students, parents and community members





Actions to Address Vaping and JUULing



-Presentations in school assemblies [partnership ACPS-SAPCA-DEA] November 8, 14.

-Presenting to 460 TCW teachers 2017-2018

-Providing lesson classes resources to Health P.E teachers 2018-2019 and distributing posters to schools

-Partnering with teachers to deliver lessons about harmful effects of vaping. 2019-2020



Actions to Address Vaping and JUULing



-Community circles about vaping and living drug free in Red **Ribbon Week.**

-Informational tables during lunch time. DEA, SACPA, INOVA

-Promoting Red Ribbon Week in elementary, middle and high school.

-Informing the community: Meeting and discussions with TCW parent association.



Vaping Work Group



 ACPS students and community members meeting to brainstorm ways to address vaping systematically





Coach's Resource Packet



Be Aware: Vaping



Department of Community

and Human Services

Coach's Resource

The Guinea Pig Generation

Because they are new, there is no data on e-cigarettes' long term effects. However, vaping can cause coughing and wheezing and may exacerbate asthma. Teens who vape are at risk of health effects, both known and unknown. The U.S. is dangerously addicting a whole generation to nicotine without knowing the cost.

Vaping is relatively new so many teens do not know the risks. Some teens think vapes produce water vapor and do not know that one unit of 'E-juice' has as much nicotine as a pack of cigarettes. Injuries and poisonings have also resulted from devices exploding and direct exposure to liquids. Provides basic information about vaping, along with practical tips for coaches to get involved in prevention



What is vaping?

- Vaping (or JUULing) is the use of e-cigarettes, a product that often contains nicotine and may also contain marijuana.
 Vaping devices produce an aerosol when the inserted liquid is heated.
- E-cigarettes come in a wide range of sizes. Some look like cigarettes while others look like USBs or pens.
- They often smell of fruit or candy due to flavoring.
- Includes: Mods, vapes, e-pens, e-cigs, e-hookahs, JUULs.

Who is vaping? 🍝

- In 2016, 7.5% of Alexandria high schoolers used e-cigarettes.¹
- Nationally, e-cigarette use is growing quickly; as of 2018, 37.3% of U.S. 12th graders reported any vaping.²
- It is positively portrayed in social media and used by a wide range of high school social circles, including athletes.
- Because devices are easy to conceal, they are often used in school bathrooms, locker rooms and even classrooms.

What is the danger?

The Opportunity Seminar



- Collaborative model to address substance use infractions
- Bi-monthly seminars with a restorative focus are delivered to students and families







What Can You Do



- Write a letter to the School Board
- Write a letter to the Public Health Advisory Commission and the School Health Advisory Board
- Submit a letter to the editor about vaping
- Get involved with SAPCA



Resources Available



- SAPCA's Website: E-cigarettes and Vaping
- CATCH My Breath
- Tobacco Prevention Toolkit from Stanford Medicine
- <u>Centers for Disease Control and Prevention</u>



Thank you! Questions?



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