



Tacoma-Pierce County
Health Department
Healthy People in Healthy Communities

E-Cigarette and Vapor Toolkit

An Educational Guide for Prevention



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E-Cigarette and Vapor Toolkit

An Educational Guide for Prevention

Know the Facts

E-cigarettes are battery operated devices used to inhale a vaporized liquid. This liquid often contains nicotine.

E-cigarettes also contain many different chemicals (known to be harmful) as well as various flavors that appeal to youth.¹ They are also known as electronic nicotine delivery systems (ENDS), vaporizers, vape pens, e-hookahs, e-cigars and mods. These devices simulate smoking.

Youth E-Cigarette Use

Youth e-cigarette use is on the rise and is a serious public health concern that parents need to know about. Adolescence is a critical time for brain development. Nicotine exposure at a young age may cause lasting harm to brain development, promote addiction and lead to sustained tobacco use."^{1,2,3} Aggressive marketing of these products, in addition to the introduction of candy flavors, makes e-cigarette use especially appealing to youth.

Popular Device

A juul is a sleek and popular device used among youth. It looks like a flash drive and is easy to hide. They come in a variety of flavors and have interchangeable cartridges.

Health Effects of E-Cigarettes

E-cigarettes are not safe despite the claims that they are an alternative to quitting conventional cigarettes. Even the e-liquid claiming zero nicotine has shown to have varying levels of nicotine. There are no known long-term health effects since this product is relatively new. Reports do show that there are adverse health outcomes from using these products.

Marijuana and Vapor Use

E-cigarette devices can be modified to vape marijuana in the form of highly concentrated liquid hash oil and waxy forms of THC. By vaping the oil, it eliminates the odor and makes it difficult to detect. Marijuana use in any form can cause several health problems for youth.



Local, State and Federal Vapor Product Regulations

In July 2016, Tacoma-Pierce County Board of Health unanimously passed revised **regulations** restricting the use of vapor products (e-cigarettes) within Pierce County to align with new state and federal laws.

Resources for Schools

Know the facts! Students are using these electronic devices on school grounds. Some of these products look like regular pens or highlighters. They can also look like asthma inhalers or flash drives. They are easily hidden by students in the classroom. Many teachers may not even recognize these devices or detect an odor, making it easy for students to use. These products are heavily marketed to our kids and teens. The e-juice has many kid-friendly flavors such as gummy bear, vanilla, cotton candy, etc. E-cigarettes are available in more than 7,000 flavors and come in a variety of "cool looking" techy gadgets that appeal to youth.

Cessation Resources

Tobacco use remains a leading cause of preventable death and chronic disease. E-cigarettes are not approved by the FDA as a cessation device. If you are interested in quitting there are **resources** to help.

References

1. C Everett Koop, M., *Health Consequences of Smoking: Nicotine Addiction a Report of the Surgeon General 1988*. 1988: DIANE Publishing
2. *Betogaccofree.gov – nicotine addiction and your health*. Oct. 2016
3. *Nicotine exposure at a young age "may cause lasting harm to brain development," warns Dr. Tom Frieden, chief of the Centers for Disease Control and Prevention.*

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The Facts

- Electronic nicotine delivery devices come in a variety of styles and names including e-cigarettes, e-hookah, vape pens, mods and personal vaporizers.
- E-cigarettes look like cigarettes, cigars, pipes or other everyday items such as pens, lighters, asthma inhalers or flash drives.
- E-cigarette vapor isn't harmless water vapor. There are many cancer-causing chemicals, metals and nicotine in the vapor.¹
- The Food and Drug Administration (FDA) is only beginning to regulate e-cigarettes.²
- Nicotine content varies among products and may not deliver the content advertised on the label.
- E-cigarettes or vapes are **marketed** directly towards youth. The e-liquid comes in many colors and candy-like flavors, such as, bubble-gum, gummy bear, blueberry, etc. that appeal to youth.²
- More than 18 million (7 in 10) U.S. middle and high school youth were exposed to vape ads in 2014. The higher the exposure, the higher the chance youth will vape.³
- E-cigarette devices can be used to vape marijuana and other drugs.
- No scientific evidence has established the safety of e-cigarettes.
- Students may be suspended from their sports team, other activity or school for vaping.
- E-cigarettes are not an approved cessation method for quitting cigarettes.³

See our resources section for these facts in poster form.

References

1. Laugesen M. Safety Report on the Ruyan E-cigarette cartridge and inhaled aerosol. Christchurch: Health New Zealand Ltd.; October 30, 2008.
2. FDA www.fda.gov/ForConsumers/ConsumerUpdates/ucm198176.htm
3. Tobaccofreekids.org



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Youth Use of E-Cigarettes

E-Cigarettes:

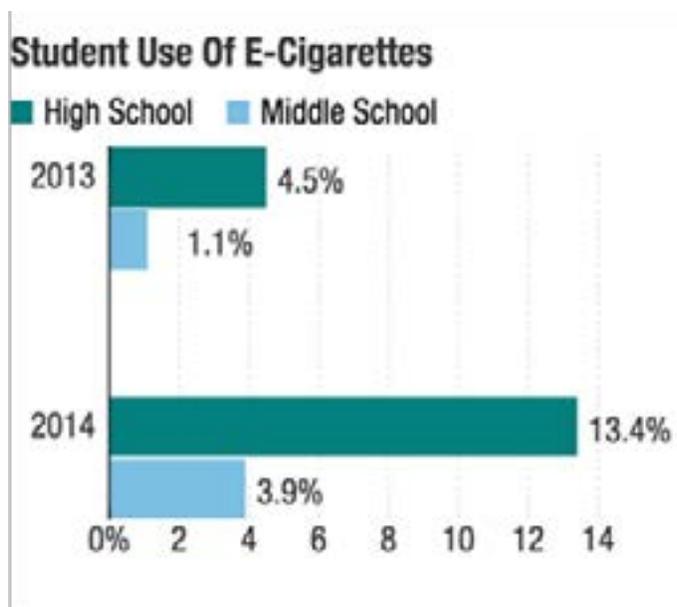
- Are the most commonly used tobacco product by youth.¹
- Pose a threat to an increasing number of Washington youth.²
- Can lead to an increase in youth smoking conventional cigarettes.²

Youth exposure to e-cigarette advertisements increase use. The more ads our youth see, the greater chance they will try e-cigarettes.^{2,3}

- More than 10 million high school students and nearly 8 million middle school students in the U.S. were exposed to various ads in 2014.³

According to 2016 Healthy Youth Survey:

- One in five high school seniors in Washington state reported e-cigarette use in 2016, as compared to 1 in 14 in 2012.²
- In Pierce County, 14% of all 10th graders and 18% of 12th graders reported using e-cigarettes or vape pens in the past 30 days.
- E-cigarettes appeal to youth. Smokers and non-smokers.



CDC/CDC National Youth Tobacco Survey



References

1. Notes from the field: electronic cigarette use among middle and high school students – United States, 2011–2012. MMWR Morb Mortal Wkly Rep. Sep 6 2013;62(35): 729–730.
2. Intentions to smoke cigarettes among never-smoking US middle and high school electronic cigarette users: National Youth Tobacco Survey, 2011–2013. Nicotine and Tobacco Research, Feb. 2014.
3. Notes from the field: electronic cigarette use among middle and high school students – United States, 2011–2012. MMWR Morb Mortal Wkly Rep. Sep 6 2013;62(35): 729–730

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Health Effects



E-Cigarettes and Vapor Products are not safe.

- E-cigarettes often contain nicotine, a highly toxic and [addictive](#) substance.^{1,2}
- Nicotine negatively affects brain development in youth.³ Nicotine use during adolescence has been associated with lasting cognitive and behavioral impairments, including effects on working memory and attention.³
- Nicotine content varies among products and may not deliver the content advertised on the label.
- E-cigarettes contain many harmful chemicals such as formaldehyde, benzene, lead and nickel (all cancer causing agents).⁴
- E-cigarette vapor contains diacetyl (an ingredient found in the butter flavor used in microwave popcorn). This chemical can cause a serious and irreversible lung disease known as "[popcorn lung](#)".
- E-liquid is poisonous and toxic to nerves.
- Just a few drops of e-liquid can cause nicotine poisoning in children. Nicotine poisoning can happen either by swallowing the e-juice, inhaling the vapor or absorbing the juice through skin contact. For more information from Washington State Poison Center visit www.wapc.org.
- Refilling the e-cigarette cartridges may increase the risk of nicotine [poisoning](#).
- E-cigarettes pollute the air.⁴ Some aerosols contain propylene glycol which can cause respiratory irritation and bronchial constriction, which is concerning for people with chronic obstructive pulmonary disease or asthma.⁵
- [Secondhand](#) exposure to the vapor can cause harm.
- E-cigarettes are [marketed](#) directly towards youth. The e-liquid comes in many colors and candy-like flavors, such as, bubble-gum, gummy bear, blue berry, cotton candy, etc. that appeal to youth.
- The electronic devices have been known to combust causing serious facial injuries.⁶

Additional Resources:

American Heart Association: [E-Cigarettes and Public Health](#)

American Lung Association: [E-Cigarettes and Lung Health](#)



References

1. C Everett Koop, M., Health Consequences of Smoking: Nicotine Addiction a Report of the Surgeon General 1988. 1988: DIANE Publishing
2. Washington State Department of Health. www.doh.wa.gov/DataandStatisticalReports/DataSystems/HealthyYouthSurvey
3. The American Lung Association: www.lung.org/stop-smoking/smoking-facts/e-cigarettes-and-lung-health.html
4. Laugesen M. Safety Report on the Ruyan E-cigarette cartridge and inhaled aerosol. Christchurch: Health New Zealand Ltd.; October 30, 2008.
5. The American Lung Association: www.lung.org/stop-smoking/smoking-facts/e-cigarettes-and-lung-health.html
6. E-cigs exploding: www.cbsnews.com/news/electronic-cigarette-explodes-in-mans-mouth-causes-serious-injuries

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Vaping Marijuana

Talking Points on Marijuana use among teens.

Washington State Law



- The legal age for people to use marijuana in Washington state is 21 years of age.
- Any person under 21 years of age cannot buy or possess marijuana. [RCW 69.50.401\(3\)](#)
- People under 21 cannot visit a marijuana retail store unless they have a medical card. [RCW69.50.357\(2\)](#)
- Teens can be convicted of a felony, face jail time and be fined for selling marijuana.
- It is illegal for anyone to provide marijuana to minors. [RCW 69.50.401](#)

Marijuana Use:

- Can lead to [addiction](#).¹
- May affect brain development, especially if used before your mid 20's.²
- Is linked to school failure.
- May affect mood and motivation. It can change brain chemicals, make you feel anxious, paranoid or even depressed.²
- May cause some individuals to lose interest in activities.
- Affects coordination and reaction time. No matter how you ingest it, it can impair driving, playing sports, or activity performance.
- Is similar to any drug. It can affect driving, judgment and increase your chance of becoming involved in risk taking behaviors.³
- Is associated with higher risk of anxiety disorders and psychosis, and increased risk of occurring suicidal thoughts.¹



PARENTS, TALK TO YOUR KIDS. Research shows that if your teen knows you think it's wrong for them to use marijuana, they are less likely to use.

To learn more about vaporizing marijuana view the following resources:

1. [Keptalkingpc.org](#)
2. Washington State Department of Health Marijuana [webpage](#)
3. [listen2yourselfie.org/ Washington State Department of Health](#)
4. National Institute on Drug Abuse [webpage](#)
5. University of Washington: [Adolescents and Marijuana](#)

References

1. [www.drugabuse.gov/publications/research-reports/marijuana/marijuana-addictive](#)
2. DOH- Marijuana [www.doh.wa.gov/YouandYourFamily/Marijuana](#)
3. [kingcounty.gov/depts/health/smoking/marijuana.aspx](#)

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Local, State and Federal Regulations

Local Overview

In July 2016, Tacoma-Pierce County Board of Health unanimously passed revised [regulations](#) restricting the use of vapor products (e-cigarettes) within Pierce County to align with new state and federal laws.

The new regulations:

- Prohibit use of vapor products in indoor public places, places of employment, outdoor places where children are present and within 25 feet of entrances, exits, windows and ventilation intakes.
- Authorize the Health Department to issue penalties for code violations and impose fees for re-inspections.

State Overview

Washington State now [regulates e-cigarette](#) and vapor products. The new law:

- Includes protections to reduce youth access.
- Includes child-resistance packaging requirements.
- Requires vapor product retailers to be licensed.
- Prohibits use of vapor products in schools and within 500 feet of schools, school busses, child care centers and any outdoor areas where children congregate.
- Penalizes anyone who doesn't comply with new requirements.
- Regulates internet and distribution markets.
- Provides common-sense consumer protections, such as warnings and nicotine content disclosure.
- Establishes fines and fees to pay for enforcement and prevention and education. (This is the first increase in fees and fines in 23 years.)

Visit [Liquor and Cannabis Board](#) for more information.

Federal Overview

The [Federal Drug Administration \(FDA\)](#) also passed regulations in August 2016 that affect the manufacturer, distribution and sales of vapor products and electronic nicotine delivery systems.

The FDA will:

- Review new vapor products not yet on the market.
- Help prevent misleading claims by vapor product manufacturers.
- Evaluate the ingredients of vapor products and how they are made.
- Communicate the potential risks of vapor products.

The FDA prohibits:

- Sales to children under 18 and requires retailers to verify age for over-the-counter sales.
- Free samples.
- Manufacturers from claiming a tobacco product is less harmful without first providing the FDA with scientific evidence.
- The introduction of new or changed products without prior FDA review and scientific evidence.

The FDA will also:

- Set standards to govern the content of tobacco products.
- Restrict vending machine sales to adult-only facilities.
- Require all tobacco products containing nicotine have warning labels.
- Require disclosure of ingredients.



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What Schools Need to Know

A school policy on tobacco and e-cigarette use must be consistent with state and local laws. Developing and enforcing strong school policies can send a message to users that they will not be tolerated on school grounds regardless if it is a student, teacher, other staff or visitor.

Clearly articulated school policies can help students decide not to use tobacco or e-cigarettes. Policies that prohibit tobacco and e-cigarette use on school property require education and access to cessation programs. Using discipline alone is not effective in reducing tobacco and e-cigarette use among students.

Steps schools can take to strengthen existing policy:

Create and implement policies about detecting use, course of discipline and enforcement of tobacco and e-cigarette products.

1. Educate everyone about the policy.
2. Post signs on school grounds indicating no tolerance.
3. Create and implement an alternative to suspension strategy.
4. Implement e-cigarette curriculum in the classroom.

Resources for schools

Sample policies

- California's [tobacco-free policies and regulations](#).
- Colorado's [tobacco-free schools checklist](#).
- Public Health Law Center Kansas schools [tobacco-free model policy](#).
- Public Health Law Center Minnesota schools [tobacco-free environment model policy](#).
- Recommended [alternatives to suspension](#).
- Seattle Public Schools [marijuana initiative and tobacco policy](#).
- [10 reasons](#) to include e-cigarettes in your tobacco-free campus policy.

Classroom Materials

- Curriculum – [Catch E-cigarette](#).
- Virginia Foundation for Healthy Youth [Curriculum/Powerpoint](#)
- [5 key Facts](#) about E-Cigarettes
- No Resets [Facebook Page](#)
- No Reset Campaign Posters [Dragon](#), [Magic](#), [Robots](#)
- Electronic Nicotine Delivery Systems [Key Facts](#) (CDC).
- Electronic Cigarettes [facts & your health](#) Washington Poison Center (WAPC).
- Printable [handout](#) from WAPC.
- [E-Cigarette Use Among Youth and Young Adults A Report of the Surgeon General](#)
- Surgeon General E- Cigarettes [Site](#)

E-CIGARETTES

THE FACTS

- They come in a variety of styles and names like e-hookah and vape pens.
- They look like cigarettes, cigars, pipes or other everyday items like pens, lighters, or flash drives.
- The vapor isn't harmless water vapor. There are many cancer causing chemicals, metals and nicotine in the vapor.
- Nicotine content varies and may not deliver the content advertised on the label.
- They are marketed directly towards youth. The E-liquid comes in many flavors, such as, bubble-gum, gummy bear, and blueberry.²
- The higher the exposure to e-cigs, the higher the chance youth will vape.²
 - E-cigarette devices can be used to vape marijuana and other drugs.
 - Students may be suspended from their sports team, other activity or school for vaping.
 - No scientific evidence has established the safety of e-cigarettes.