



Georgia Department of Public Health

The Dangers of Vaping

Presentation to: Fayette County Board of Commissioners Meeting
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We Protect Lives.

Tobacco Use in GA vs District 4

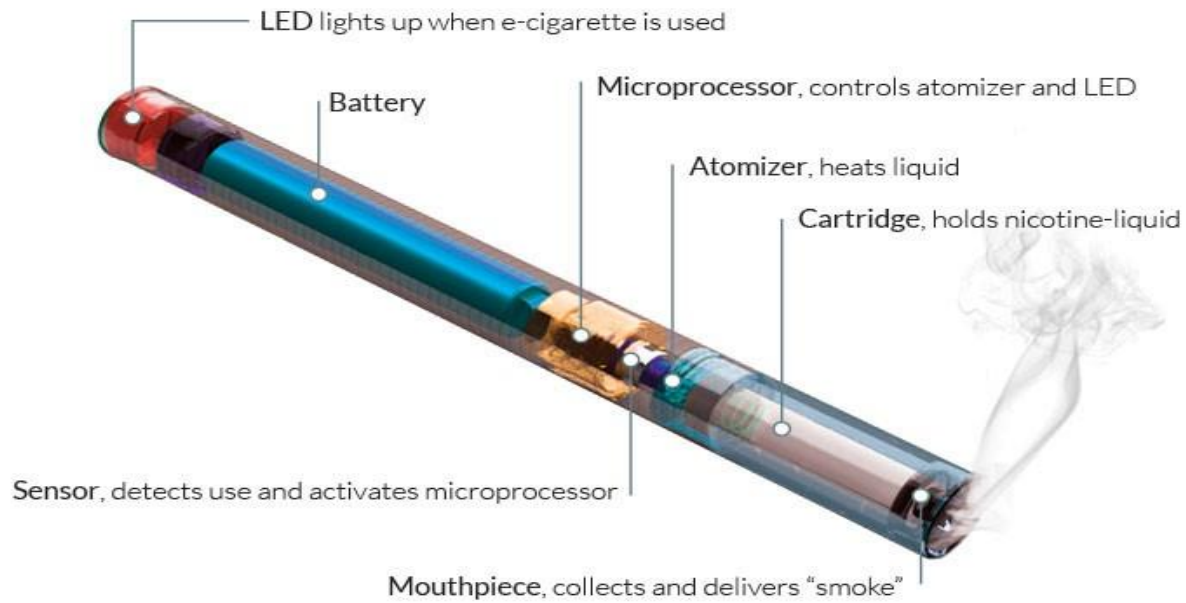
Prevalence of Tobacco Use, among Adults, Georgia, 2018

	Georgia	4-0 LaGrange Health District
	Percent	Percent
Current Smoking	16.1	18.5
Current E-Cigarette Use	5.3	4.6
Ever Use E-Cigarettes	23.9	28.3

2018 GA Behavioral Risk Factor Surveillance System (BRFSS)

E-Cigarettes

- E-cigarettes come in a variety of shapes and sizes, but most have a heating element, battery, a place to hold liquid nicotine.
 - Aka JUULs, vape pens, vapes
- They work by producing an aerosol by heating a liquid containing nicotine. Bystanders can also breathe in the aerosol the user exhales into the air.
- E-cigarettes can also be used to deliver marijuana and other drugs.



E-pipe



E-cigar



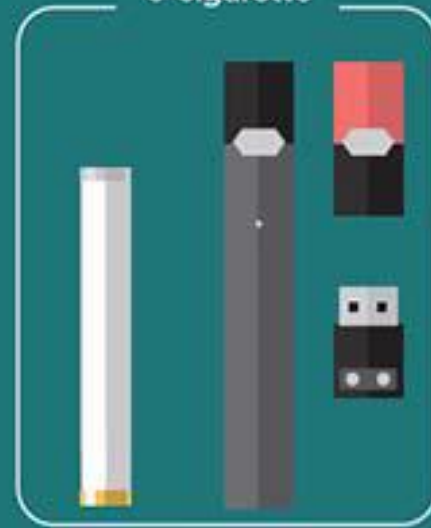
Large-size tank devices



Medium-size tank devices



Rechargeable e-cigarette



Disposable e-cigarette



Dangers of E-Cigarettes

- E-cigarettes contain nicotine, which has the following health effects:
 - Nicotine is highly addictive.
 - Nicotine is toxic to developing fetuses.
 - Nicotine can harm youth brain development.
 - Nicotine is a health danger for pregnant women and developing babies.
- Defective e-cigarette batteries have caused fires and explosions, and some have resulted in serious injuries.

Dangers of E-Cigarettes

- Acute nicotine exposure can be toxic.
- Both children and adults have been poisoned by swallowing, breathing, or absorbing e-cigarette liquid through their skin or eyes.



Dangers of E-Cigarettes

- Besides nicotine, e-cigarettes can contain harmful and potentially harmful ingredients, including:
 - ultrafine particles that can be inhaled deep into the lungs
 - flavorants such as diacetyl, a chemical linked to serious lung disease
 - volatile organic compounds
 - heavy metals, such as nickel, tin, and lead

Dangers of E-Cigarettes to the Lungs

- Multiple studies have found that the chemical additives in e-cigarettes are **toxic to cells**, can cause **lung and cardiovascular disease**, in addition to acute lung injury and COPD. One additive may also be linked to asthma and lung cancer.
- Both the U.S. Surgeon General and the National Academies of Science, Engineering and Medicine have warned about the **risks of inhaling secondhand e-cigarette emissions**, which are created when an e-cigarette user exhales the chemical cocktail created by e-cigarettes.

Table 1. Number of Nicotine Poisonings from E-Cigarettes, by Public Health District, Georgia, January 1, 2011 to April 15, 2018

Public Health District	# of Calls
1-1 Northwest (Rome)	16
1-2 North Georgia (Dalton)	22
2-0 North (Gainesville)	15
3-1 Cobb/Douglas	13
3-2 Fulton	13
3-3 Clayton County (Jonesboro)	2
3-4 East Metro (Lawrenceville)	13
3-5 DeKalb	10
4-0 LaGrange	37
5-1 South Central (Dublin)	1
5-2 North Central (Macon)	13
6-0 East Central (Augusta)	12
7-0 West Central (Columbus)	11
8-1 South (Valdosta)	11
8-2 Southwest (Albany)	17
9-1 Coastal (Savannah)	17
9-2 Southeast (Waycross)	20
10-0 Northeast (Athens)	8

E-cigarette poisonings

- The majority (65%; n=174) of e-cigarette nicotine exposures occurred among children age **0-5 years**.
- **The most common routes of exposure** for e-cigarette nicotine poisoning among children aged 0-5 years were: **ingestion** of the nicotine liquid (n=153), followed by dermal (n=12), inhalation/nasal (n=4), and ocular (n=3).

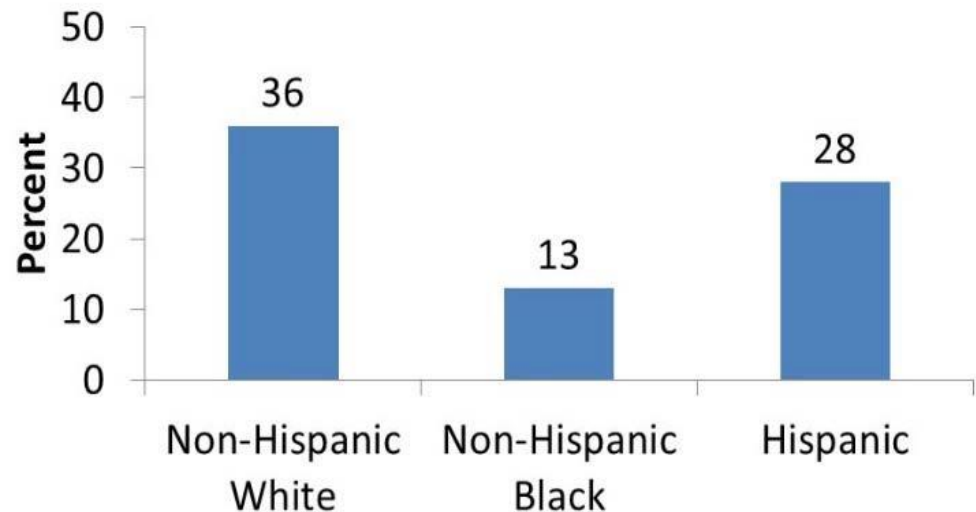
E-cigarette poisonings

- 30% (n=81) occurred among adults age 19 years and older.
- The most common routes of exposure for e-cigarette nicotine poisoning among adults age 19 years and older were: ingestion (n=35), followed by ocular (n=16), inhalation/nasal (n=15), and dermal (n=13).

Use Among Students

- **One in four** of Georgia HS students reported that they had **ever used e-cigarettes** (26.1%; 120,000).
- The number of students who **tried e-cigarettes, even once or twice, had increased by 66%** from 15.7% (72,900) in 2013 to 26.1% (120,000) in 2017.

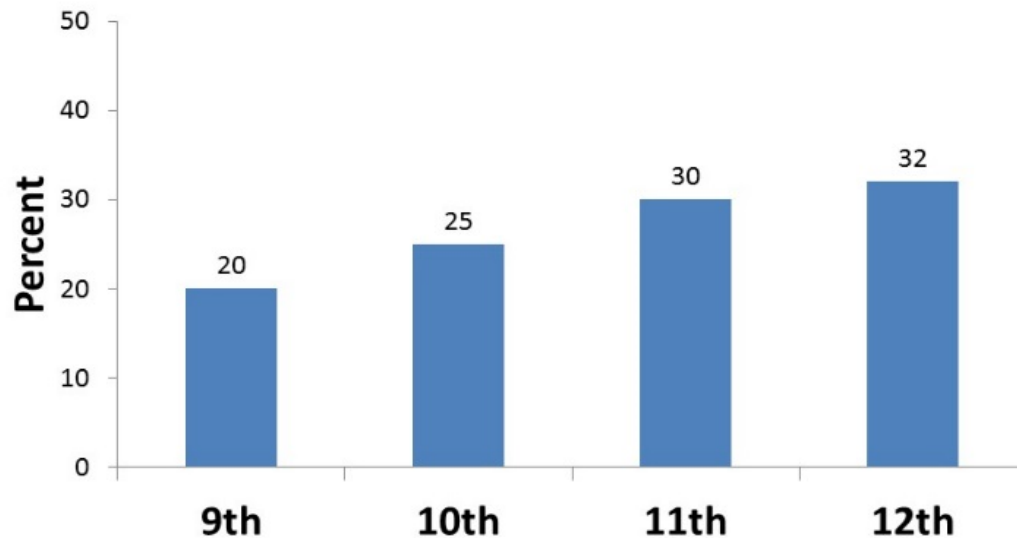
Figure 1. Percentage of Ever Using Electronic Cigarettes among High School Students, by Race/Ethnicity, Georgia, 2017



Data Source: 2017 Youth Tobacco Survey

Use Among Students

Figure 2. Percentage of Ever Using Electronic Cigarettes among High School Students, by Grade, Georgia, 2017



Data Source: 2017 Youth Tobacco Survey

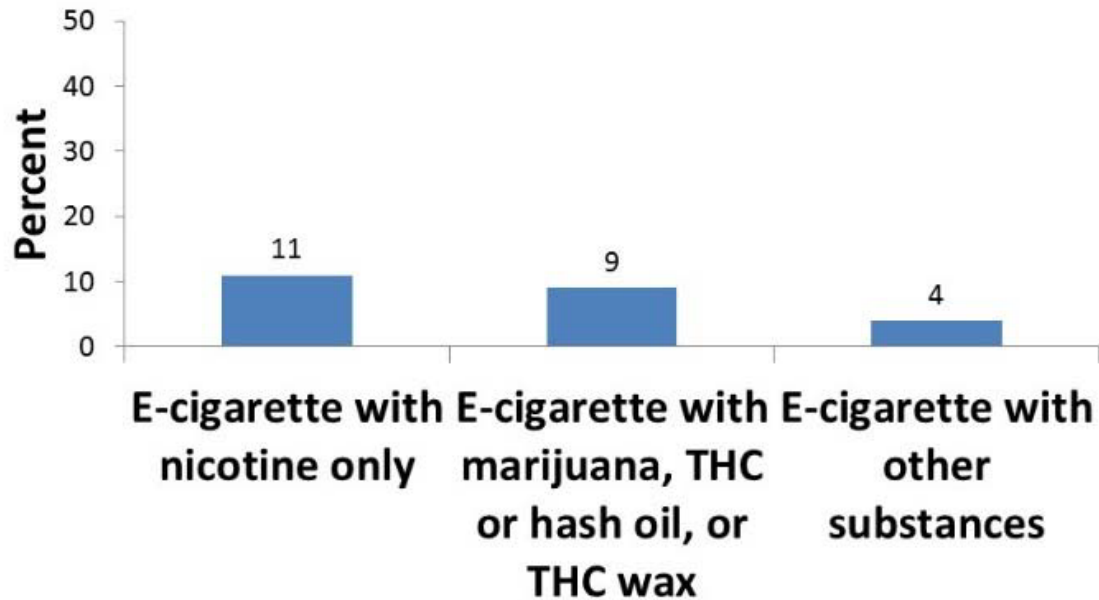
- One in four HS students (26.1%; 121,500) said they were curious about e-cigarettes.
- And almost three out of four cigarette users (74.1%; 26,000) were curious about e-cigarettes than non-smokers (22.3%; 94,500).

Use Among Students

- Among Georgia HS students, 3.4% (15,500) were daily e-cigarette smokers.
- Among HS students who smoked, students living in urban areas (69.8%; 20,000) were more likely to use both cigarettes and e-cigarettes than students living in rural areas (50.5%; 4,500).

Use Among Students

Figure 9. Percentage of Current Electronic Cigarette High School Student User, by substitutes, Georgia, 2017



Data Source: 2017 Youth Tobacco Survey

Use Among Students

- In addition to believing e-cigarettes are less harmful than cigarettes, students believe they are also less addictive and more socially acceptable than regular cigarettes.
- Current HS e-cigarette users (65.4%; 34,000) were more likely to believe that e-cigarettes were **less** harmful than cigarettes compared to non-e-cigarette users (27.5%; 106,000).

Current Symptoms of Vaping-Related Illness

- Symptoms of vaping-associated lung injury, which worsen over time, include cough, shortness of breath, fatigue, chest pain, nausea, vomiting and diarrhea.
- More than 1,000 vaping-associated lung injuries have been reported to the Centers for Disease Control and Prevention (CDC), **including at least 18 deaths.**
- No specific e-cigarette device or substance has been linked to all cases, although the **CDC's current investigation indicates products containing THC play a role in the outbreak.**

Prevention

- Vaping devices and products can be obtained from stores, online retailers, from informal sources (e.g., friends, family members), or “off the street.”
- People who vape may not know what is in these products because they can be modified to contain a mix of ingredients including dangerous and illicit substances.
- People who vape should not buy vaping products off the street or modify or add any substances to them.

Prevention

- Governor Brian P. Kemp and DPH Commissioner Kathleen E. Toomey, M.D., M.P.H. urge individuals to follow CDC recommendations and not use e-cigarettes or other vaping devices while this investigation is ongoing.
- Without knowing the specific cause of vaping-associated lung injury, discontinuing use of e-cigarettes and vaping devices is the best prevention against becoming ill.

Vaping Cases in Georgia

- The Georgia Department of Public Health (DPH) has identified the state's second death from a vaping-associated illness.
- The patient had a history of nicotine vaping, but the case is still being reviewed to determine if other substances also may have been used.

Vaping Cases in Georgia

- The number of vaping-associated lung injury cases in Georgia is now 14, including two deaths. About 20 possible cases are under review.
- Cases range in age from 18 to 68 years (the median age is 31 years), and 71% are male.
- For more information, please visit:
<https://dph.georgia.gov/vapinglunginjury>



We Protect Lives.