# Tobacco Vaping Use Among Youth

March 11 2025

# **KEY TAKEAWAYS**

- 1. Vaping tobacco products, including e-cigarettes, contain high amounts of nicotine that are addictive, particularly for adolescents.
- 2. Teens who were exposed to e-cigarette advertisements, especially on social media, were more likely to vape.
- 3. Prevention efforts like Catch My Breath, are needed to limit the exposure of tobacco products to children and adolescents.

# **Electronic Cigarettes and Vapes**

These battery-powered devices create an aerosol that contains nicotine, appealing flavors, and chemicals, which are harmful to the body and developing adolescent brains.<sup>1,2</sup>

Youth who vape nicotine are

3x
as likely
to vape cannabis

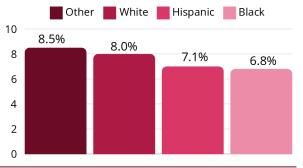
- Electronic cigarettes (e-cigarettes) and vapes simulate smoking. Newer models are disposable, while older models look similar to USB flash drives.<sup>4</sup>
- Vapes can contain as much or more tobacco as a carton of cigarettes, delivering higher amounts of nicotine quickly.<sup>5</sup>
- Youth who smoke e-cigarettes are at an increased risk for coughing, wheezing, and asthma exacerbations, which can lead to hospitalization.<sup>6</sup>
- A 10% increase in tobacco product pricing has shown to reduce youth consumption by approximately 7%.<sup>7</sup>

# **Early Exposure Poses Risks**

E-cigarettes are the most commonly used tobacco product among U.S. youth.8

- In 2024, approximately 1.6 million U.S. middle and high school students reported using e-cigarettes, with 44% of those students reporting vape usage.<sup>8</sup>
- Exposure to e-cigarettes earlier in life led to youth and adolescents being almost four times as likely to smoke in adulthood.<sup>9</sup>
  - Around 90% of adult daily smokers began smoking before the age of 18.9
- Students who don't smoke but are exposed to e-cigarette use on school campuses are nearly twice as likely to start smoking.<sup>10</sup>

Texas Middle and High School Students' Reported E-Cigarette Use in Past 30 Days by Race/Ethnicity in 2023 11









# **Vaping and E-cigarette Advertisements & Flavors**

Teens who report seeing vaping advertisements are more likely to begin vaping compared to peers who are not exposed to advertisements.<sup>12</sup>

- Exposure to unregulated digital marketing and online media increased the likelihood of initiating smoking in young adults. 10,14
- Vaping advertisements can be misleading because they market online to the general public using bright colors, and fashionable images, and promote themes of fun, adventurous lifestyles.<sup>12,15</sup>
  - Vaping flavors also promote fun, friendly-type flavors such as cotton candy and gummy bear.<sup>12,15</sup>
  - Tobacco flavors are appealing to both new and current users. 9,10
- In Texas, vaping among middle and high school students is linked to the presence of retail stores within a half-mile of schools.<sup>12,16</sup>

98%

of Texas students who currently smoke reported their first e-cigarette was flavored<sup>2</sup>

## **Texas House Bill 4758 (2023)**<sup>17</sup>

Penalizes retailers for marketing, advertising, and selling e-cigarettes to minors with ads that











mimic trademarks use cartoon characters

use specific symbols

use images of celebrities

resemble food or candy products

Violation can result in 180 days in jail and/or a fine of up to \$2,000, along with civil penalties.

# **Texas Legislation on Tobacco Products**

# House Bill 4481 (2023) 18

- E-cigarette manufacturers must certify their products are FDA-approved or meet FDA requirements to be sold in Texas.
- Retailers must ask for identification upon sale of nicotine products, and cannot sell to individuals under the age of 21.
- Retailers cannot use vending machines to dispense or allow direct access to tobaccorelated products.

# House Bill 114 (2023) 19

- School administrators, resource offices, or district peace officers can confiscate ecigarettes on school campuses.
- Students found in possession of e-cigarettes on school grounds or at school-sanctioned activities could be placed in alternative learning environments or provide tobacco cessation classes.



# **Vaping Myths & Facts**

Fact: Vaping rewires the brain to expect more nicotine, creating an addiction to crave more often. 1



### Myth #1: Vaping helps people to stop smoking.

**Fact:** Vaping is not safe and exposes people to chemicals. There are no data to show that vaping supports smoking cessation.<sup>1</sup>



### Myth #2: Vaping is more harmful than smoking.

**Fact:** Vaping is considered safer than smoking, but is still not safe. While cigarettes contain carcinogens, poisons, and other metals, vapes also contain chemicals that may cause cancer, but at a lower concentration.<sup>1</sup>



### Myth #3: Vaping does not create second hand smoke.

**Fact:** Vaping contains aerosolized particles that cling to surfaces and can be inhaled into the lungs or absorbed through the skin like second hand smoke.<sup>1</sup>



### Myth #4: Quitting vaping is easy.

Fact: Vape products contain nicotine, which makes them just as addictive to use as cigarettes.<sup>1</sup>

# **Vaping Prevention Program in Texas**

### **CATCH My Breath**

- CATCH My Breath, a free, data-driven program to reduce students' likelihood to vape, is aligned with national and state educational standards.<sup>12, 20</sup>
- The program is available for students nationwide in grades 5-12 and can be taught by educators, public health specialists, or community volunteers.<sup>20</sup>
- Over 5,500 schools across the U.S. and Canada have implemented the CATCH My Breath program into their school health curricula.<sup>20</sup>



# Recommendations

Tobacco prevention programs can reduce the number of youth who use e-cigarettes by

Reference 8

- Support efforts to limit where and how e-cigarettes are sold and advertised to youth and adolescents.
- Ask your school to consider implementing the CATCH My Breath® prevention curriculum, using the downloadable toolkit.<sup>20</sup>
  - Schools can learn more on incorporating cessation programs from the Truth Initiative to support students wishing to quit smoking.<sup>21</sup>
- Talk to your teen about vaping. Advertisements are common in teen-oriented media. Talk to your teen about the negative health outcomes related to vaping.<sup>20</sup>
  - Download the CMB parent toolkit at CATCH.org.<sup>20</sup>







# **Experts**

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### Resources

- 1.Texas Department of State Health Services. What is Vaping? https://www.dshs.texas.gov/vaping/what-is-vaping. Accessed December 2, 2024.
- 2. Michael & Susan Dell Center for Healthy Living. Teen Vaping in Texas. https://sph.uth.edu/research/centers/dell/resources/teen%20vaping%20in%20texas%2012.15.20.pdf. Updated December 15, 2020. Accessed December 2, 2024.
- 3. America's Poison Centers. E-Cigarettes and Liquid Nicotine. https://poisoncenters.org/track/ecigarettes-liquid-nicotine. Accessed February 12, 2025.
- 4. Cleveland Clinic. Nicotine Poisoning. https://my.clevelandclinic.org/health/diseases/21582-nicotine-poisoning. Updated October 2021. Accessed November 21, 2024.
- 5. American Lung Association. Why is Vaping Dangerous? https://www.lung.org/quit-smoking/helping-teens-quit/talk-about-vaping/vaping-facts#why-is-vaping-dangerous. Accessed February 18, 2025.
- 6.American Lung Association. The Impact of E-cigarettes on the Lung. https://truthinitiative.org/. Updated December 17, 2024. Accessed January 15, 2025.
- 7. American Lung Association. State Tobacco Excise Taxes Methodology. https://www.lung.org/research/sotc/state-grades/methodology/state-tobacco-excise-tax. Updated January 27, 2025. Accessed February 18, 2025.
- 8. Centers for Disease Control and Prevention. Smoking and Tobacco Use. https://www.cdc.gov/tobacco/e-cigarettes/youth.html. Accessed November 23, 2024.
- 9. Mantey DS, Omega-Njemnobi O, Ruiz FA, Vaughn TL, Kelder SH, Springer AE. Association between observing peers vaping on campus and E-cigarette use and susceptibility in middle and high school students. Drug Alcohol Depend. 2021;219:108476. doi:10.1016/j.drugalcdep.2020.108476
- 10. Clendennen SL, Mantey DS, Wilkinson AV, Perry CL, Harrell MB, Loukas A. Digital marketing of smokeless tobacco: A longitudinal analysis of exposure and initiation among young adults. Addict Behav. 2021;117:106850. doi:10.1016/j.addbeh.2021.106850
- 11. Texas Department of State Health Services. 2025 Electronic Cigarette (E-Cigarette) Report. https://www.dshs.texas.gov/sites/default/files/legislative/2025-Reports/2025-Electric-Cigarette-E-Cigarette-Report.pdf. Released January 2025. Accessed January 15, 2025.
- 12. Michael & Susan Dell Center for Healthy Living. Vaping Advertisements & Teens.
  - https://sph.uth.edu/research/centers/dell/resources/vaping%20marketing.pdf. Updated December 11, 2020. Accessed November 21, 2024.
- 13. Texas Department of Health and Human Services. 2023 Electronic Cigarette (E-Cigarette) Report. https://www.dshs.texas.gov/sites/default/files/2022-12/2023-Electronic-Cigarette-E-Cigarette-Report\_12.14.22.pdf. Published January 2023. Accessed November 15, 2024.
- 14. Vandewater EA, Clendennen SL, Hébert ET, et al. Whose Post Is It? Predicting E-cigarette Brand from Social Media Posts. Tob Regul Sci. 2018;4(2):30-43. doi:10.18001/TRS.4.2.3
- 15. Texas Adolescent Tobacco and Marketing Surveillance Study (TATAMS). Michael & Susan Dell Center for Healthy Living. http://go.uth.edu/TATAMS. Accessed November 15, 2024.
- 16. Smithsonian Magazine. Ads for E-Cigarettes Today Hearken Back to the Banned Tricks of Big Tobacco.
  - https://www.smithsonianmag.com/history/electronic-cigarettes-millennial-appeal-ushers-next-generation-nicotine-addicts- 180968747/. Accessed December 2, 2024.
- 17. Texas House Bill 4758. https://capitol.texas.gov/BillLookup/History.aspx?LegSess=88R&Bill=HB4758. Accessed January 15, 2025.
- 18. Texas House Bill 4481. https://capitol.texas.gov/tlodocs/88R/billtext/pdf/HB04481H.pdf#navpanes=0. Accessed January 15, 2025.
- 19. Texas House Bill 114. https://capitol.texas.gov/tlodocs/88R/billtext/html/HB00114l.htm. Accessed January 15, 2025.
- 20. Catch My Breath. Catch My Breath Youth Vaping Prevention Program. https://letsgo.catch.org/pages/catch-my-breath. Accessed November 21, 2024.
- 21. The Truth Initiative. Youth and Young Adult Nicotine Addiction Prevention Education. https://truthinitiative.org/. Accessed January 15, 2025.

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