

Connecticut Department of Public Health Fact Sheet

Tobacco Control Program | September 2023

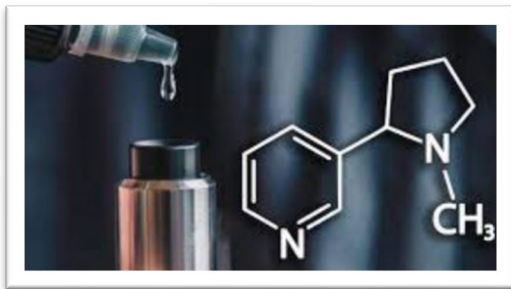
Synthetic Nicotine

What is Synthetic Nicotine...?

Synthetic nicotine is a liquid created in a lab rather than derived from tobacco leaves and is commonly used in commercial tobacco products such as vapes and pouches.¹ A recent study from Stanford University identified six manufacturers of synthetic nicotine and 98 brands of tobacco products that contain it.² The health effects of products containing synthetic nicotine are not well understood. Scientists are still researching the long-term health impacts. Flavor ingredients, like synthetic nicotine, have been shown to be harmful or toxic to health.³



Misleading Marketing of Synthetic Nicotine

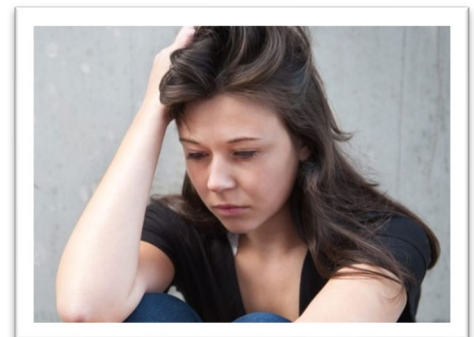


- Synthetic nicotine products are marketed as tobacco-free, pure, or clean which may be misleading to consumers and imply a lower-risk alternative to traditional tobacco products.
- Vape brands such as Puff Bar are profiting from misconceptions among young people that synthetic nicotine is safe.²

- Manufacturers have not revealed the chemical process to produce synthetic nicotine, making it difficult to research its dangers.

Health Impacts of Synthetic Nicotine

- Synthetic nicotine is still nicotine, a highly addictive substance that research suggests is as addictive as heroin, cocaine, or alcohol.²
- Nicotine is especially harmful to adolescents, as it impairs brain development, and negatively affects a young person's memory, attention levels, and ability to learn.³
- The expanding use of synthetic nicotine puts the nation's youth at serious risk for illness and addiction.



The Synthetic Nicotine Problem



- Synthetic nicotine has been around for many years but has only recently been used in products such as vapes or pouches. New advances in nicotine synthesis have enabled it to be cheaply manufactured.⁴
- Synthetic nicotine products have not been shown to help in quitting smoking. Only Nicotine Replacement Therapy products, like patches or gum, are designed to provide much lower levels of nicotine to help tobacco users end their addiction.³

- The U.S. Food and Drug Administration (FDA) gained regulatory authority over vapes and other tobacco products in 2016 when the “Deeming Rule” went into effect, however the rule only specified tobacco or tobacco-derived nicotine products.⁵ This specification allowed synthetic nicotine products to avoid FDA regulation and opened the door to the proliferation of these products.²
- Sales of synthetic nicotine products went from virtually nonexistent in 2020 to taking up two-thirds of shelf space in US vape shops in 2021.⁶ According to Nielsen data, dollar sales in convenience stores of nicotine pouches increased 470% in the first half of 2020.¹
- As youth vaping continues at concerning levels, the proliferation of synthetic nicotine products threatens to worsen the youth nicotine crisis.



What Has Been Done...?

- On March 11, 2022, the Consolidated Appropriations Act passed, which added specific language to the Federal Food, Drug, and Cosmetic Act giving the FDA regulatory authority over tobacco products containing nicotine from any source, including synthetic nicotine.
- Synthetic nicotine products are restricted by the FDA to be marketed as “modified risk” and require warning labels. Companies that want to sell synthetic nicotine products must now submit a Premarket Tobacco Product Application to obtain authorization from the FDA to market and sell their products.⁷

What Can Be Done...?

- All nicotine is harmful to youth development - synthetic nicotine products should be treated the same as other tobacco products in youth prevention efforts.
- The industry is using targeted marketing and misleading practices – young people should be educated and engaged so they understand the risks of synthetic nicotine products and how these products are marketed.

References

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- ³ American Lung Association. What is synthetic nicotine? how some tobacco companies tried to evade the law. ALA. 18 August 2022.
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- ⁵ U.S. Food and Drug Administration. Center For Tobacco Products. How FDA Regulates Vapes. FDA. 21 July 2023.
- ⁶ Jewett C. The Loophole That's Fueling a Return to Teenage Vaping. New York Times. 8 March 2022.
- ⁷ U.S. Food and Drug Administration. Center For Tobacco Products Newsroom. New Law Clarifies FDA Authority to Regulate Synthetic Nicotine. 18 July 2022.



For More Information, Contact:

Connecticut Department of Public Health | Tobacco Control Program

410 Capitol Avenue, PO Box 340308, MS #11HLS

Hartford, CT 06134-0308

Call: 860-509-8251 or visit: www.ct.gov/DPH/Tobacco



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