

# Connecticut Department of Public Health Fact Sheet

## Tobacco Control Program | May 2024

### N I C O T I N E P O U C H E S

#### What are Nicotine Pouches...?

Nicotine pouches are an emerging nicotine product that are small porous, teabag-like products that contain nicotine, cellulose, water, flavoring, and sodium carbonate and are placed inside the mouth between the lip and gum.<sup>1</sup>

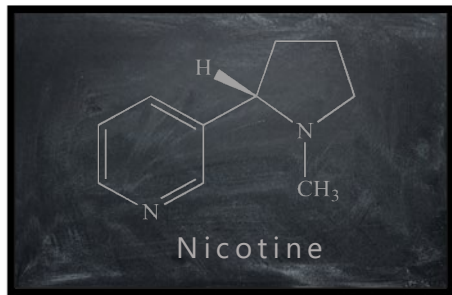
- Nicotine absorption occurs through the lining of the mouth.
- Nicotine pouches are available in a range of strengths, typically between 1.5 and 8 mg of nicotine per pouch.<sup>2</sup>
- Nicotine pouches are distinguished from the smokeless snus (a spitless, moist tobacco pouch)<sup>1</sup> because most brands contain non-tobacco nicotine, referred to as synthetic nicotine—a type of tobacco-free nicotine created in a lab and not derived from tobacco leaves.
- Nicotine pouch brands more commonly use synthetic nicotine to avoid certain regulations.<sup>3</sup> However, nicotine pouches can contain either nicotine derived from tobacco or synthetic nicotine.



Nicotine Pouches

#### Health Impact of Nicotine Pouches

- Synthetic nicotine pouches are marketed as tobacco-free, pure, or clean, which may be misleading to consumers and imply a lower-risk alternative to traditional tobacco products. Just because synthetic nicotine is not made from tobacco does not mean that it is not harmful.<sup>3</sup>
- Synthetic nicotine is still nicotine, a highly addictive substance that research suggests is as addictive as heroin, cocaine, or alcohol. Nicotine is especially harmful to adolescents, as it impacts brain development. Nicotine use during adolescence has been shown to impact memory, attention span, ability to learn, and proneness to addiction.<sup>3</sup>
- Reported side effects of nicotine pouch use include mouth and gum irritation, hiccups, nausea, and nicotine addiction.<sup>4</sup>
- Traces of carcinogens and toxic chromium have been found in nicotine pouches, which can deteriorate gum tissue and increase risk for periodontal diseases.<sup>5</sup>
- Nicotine pouches will not help you quit smoking or vaping, whereas the United States Food and Drug Administration (FDA) approved Nicotine Replacement Therapy (NRT) can. NRT products, like patches or gum, are designed to provide much lower levels of nicotine to help tobacco users end their nicotine addiction. Conversely, products that use synthetic nicotine have the same or similar amounts of nicotine in them as tobacco-derived products.<sup>3</sup>



## The Nicotine Pouch Perspective Problem

- **Oral nicotine pouches have dramatically increased in popularity:**

- Between 2019 and 2022, unit sales increased six-fold.<sup>6</sup>
- According to a sales analysis of the four major brands, 808 million pouches were sold in the first three months of 2022.<sup>7</sup>
- Nicotine pouches are most commonly used among 18-24 year-olds,<sup>8</sup> as brands come in a variety of appealing flavors that attract youth and young adults.
- Nicotine pouches are available in a variety of nicotine concentrations; a 2022 study found that sales of pouches containing the highest concentration of nicotine increased faster than pouches with lower nicotine concentrations, raising concern about the level of addictiveness of these products.<sup>9</sup>



- **There is a common misconception that nicotine pouches can be used as a substitute or cessation aid to quit vaping:**



- There is no data showing that nicotine pouches are a safe or effective way to quit vaping or smoking.
- A recent study showed that nicotine pouches had little effect curbing nicotine cravings among smokers.<sup>10</sup>
- Another study found that many young adults who use nicotine pouches also use a different tobacco product, which suggests they are not an effective cessation aid and may lead to use of multiple tobacco products.<sup>11</sup>

## What Has Been Done?

- In March 2022, President Biden signed the Consolidated Appropriations Act, 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 now subject to FDA restrictions on marketing products as “modified risk” tobacco products 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.<sup>12</sup>

## What Can Be Done?

- Educate young adults on the industry’s targeted marketing and misleading practices, which are used to exploit young people into using these products.
- Promote cessation programs that follow best practices such as the Connecticut Quitline that offers both counseling services and FDA-approved NRT.
- Advise current tobacco product users to quit, not switch to a different commercial tobacco product. There is no safe alternative tobacco product.

## References

- <sup>1</sup>Tobacco Free Kids. Nicotine Pouches. Tobacco Free Kids. <https://www.tobaccofreekids.org/what-we-do/global/nicotine-pouches> Page last Updated: August 30, 2023
- <sup>2</sup> Mallock N, Schulz T, Malke S, et al. Levels of nicotine and tobacco-specific nitrosamines in oral nicotine pouches. Tobacco Control. <https://tobaccocontrol.bmj.com/content/tobaccocontrol/early/2022/08/05/tc-2022-057280.full.pdf>. March 2023.
- <sup>3</sup>American Lung Association. [What is synthetic nicotine? how some tobacco companies tried to evade the law](#). ALA. August 23, 2023.
- <sup>4</sup>Nebraska Medicine. Are Nicotine Pouches Safer Than Chewing, Smoking or Vaping? <https://www.nebraskamed.com/cancer/lung/quit-smoking/are-nicotine-pouches-safer> Page last update: June 1, 2021.
- <sup>5</sup>Dongxia Ye, Irfan Rahman, "Emerging Oral Nicotine Products and Periodontal Diseases", International Journal of Dentistry, vol. 2023, Article ID 9437475, 7 pages, 2023. <https://doi.org/10.1155/2023/9437475>.
- <sup>6</sup>Truth Initiative. [New Study Shows Many Young Oral Nicotine Pouch Users Also Smoke and Vape](#). Truth Initiative. July 7, 2023.
- <sup>7</sup>Blum, D. "Cane Nicotine Pouches Like Zyn Harm Your Health?" New York Times. January 25, 2024 <https://www.nytimes.com/2024/01/25/well/live/zyn-nicotine-pouches-health-risks.html>.
- <sup>8</sup>Felicione N, Schneller L, et al. "Oral Nicotine Product Awareness and Use Among People Who Smoke and Vape in the U.S. American Journal of Preventative Medicine", vol. 63 Issue. 4 ID P611-618, October 2023. <https://doi.org/10.1016/j.amepre.2022.04.019>.
- <sup>9</sup>Ohio State University. Comprehensive Cancer Center. Oral Pouch Products Do Little to Curb Addictive Nicotine Cravings. The Ohio State University, Comprehensive Cancer Center. November 15, 2023 <https://cancer.osu.edu/news/oral-pouch-products-do-little-to-curb-addictive-nicotine-cravings>.
- <sup>10</sup>Majmundar A, Okitondo C, Xue A, Asare S, Bandi P, Nargis N. Nicotine Pouch Sales Trends in the US by Volume and Nicotine Concentration Levels From 2019 to 2022. *JAMA Netw Open.* 2022;5(11):e2242235. doi:10.1001/jamanetworkopen.2022.42235.
- <sup>11</sup>Truth Initiative. [Can Oral Nicotine Pouches Like Zyn Help People Quit Vaping Nicotine?](#) Truth Initiative. September 7, 2023.
- <sup>12</sup>U.S. Food and Drug Administration. Bulletin: "New Law Clarifies FDA Authority to Regulate Synthetic Nicotine". March 18, 2022. #:54 PM EDT. <https://content.govdelivery.com/accounts/USFDA/bulletins/30f82ff>.

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](http://www.ct.gov/DPH/Tobacco)

Last updated: May 28, 2024

