

CNN —

Tiny packets of nicotine have quickly become a big problem for parents and schools.

They're available at gas stations and convenience stores under names like Zyn, O! Rogue, Juice Head and VELO. Although the products are supposed to be sold only to people over 21, a growing number of children have reported using these types of smokeless oral nicotine packets.

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Because they're relatively new to the market, parents and teachers may not know what to look for. And since young users don't have to stand outside and smoke or vape to get a nicotine fix, the products can be easy to hide and hard to spot.

The tiny white pockets, sometimes called lip pillows or upper deckies, are held between the inner lip and the gum. They contain nicotine or synthetic nicotine and filler that is mostly flavor like mint or fruit.

"We're very concerned about Zyn use right now," said Dr. Bonnie Halpern-Felsher, a professor of pediatrics and the founder and director of the [Tobacco Prevention Toolkit](#), an online curricular aimed at reducing and preventing youth tobacco use.

Zyn and its competitors came to the U.S. in 2014, and the number of adults who use them has remained relatively steady since around 2016. But they have quickly become one of the most-used nicotine products among kids and young adults, according to the [U.S. Center for Disease Control and Prevention](#), second only to vaping.



What to know about Zyn, the tiny nicotine pouch that's sparked a big health debate

It's against the law for tobacco companies to promote their products with traditional advertising, like on TV or in magazines, but Zyn and its competitors seem to be everywhere online where a kid would be.

Embraced by some professional athletes and familiar personalities, the products have become so popular on TikTok that there's even a name for devotees: Zynfluencers.

Swedish Match U.S., the maker of Zyn, said the product is marketed to existing nicotine consumers over 21.

"Working to ensure access is only for adults over 21 is built into our DNA. Nicotine products are among the most highly regulated on the market. Swedish Match North America, which markets ZYN in the U.S., doesn't use social media influencers and refuses requests for such partnerships. Its

product websites are strictly age-gated, and its advertising features only individuals 35 or older," the company said in a statement.

But there are so many oral nicotine products hitting the market that in December, the American Heart Association revised its policy paper on the topic for the first time since 2010. It calls for more research and for more education for doctors, parents and kids so people can be more aware of when young people are using them and what the health consequences may be.

Halpern-Felsher gave a talk at one school in the San Francisco Bay Area where she was told that Zyn is "pervasive" and "really difficult to detect."

"Teens don't understand that this is nicotine, and they don't understand what it could do to them," she added.

Vaping immediately affects vascular health and oxygen levels, study shows, even without nicotine

Health dangers of nicotine

Promoted by users as a pick-me-up, nicotine may give young people a quick burst of energy. But in the long term, it has the opposite effect: It can have a profound impact on the structure, function and connections in the young brain, which may harm their ability to pay attention, learn and remember things.

Levels of nicotine in these products can vary from about 3 milligrams per packet up to 12 milligrams, "and we know kids are sometimes doubling up with these," Halpern-Felsher said, putting them at risk of nicotine poisoning. For context, the nicotine ingested from a 6 milligram Zyn pouch would be equal to smoking about three packs of cigarettes or one and a half e-cigarette pods of 2% vape juice per day according to the American Lung Association.

Kids are also more easily addicted to nicotine than adults, studies show, which could lead to a lifetime of health issues. More research is needed on the effects in younger people, but adult use of nicotine carries a cardiovascular risk, raises the risk of cancer and can cause bad breath, tooth loss and gum disease. There's also an increased risk of death from heart or cerebrovascular issues, studies have found.

Although the number of teens who vape has fallen from a peak in 2019 and the number of people smoking combustible cigarettes has been declining for more than a decade, the CDC says, slightly more children are using oral nicotine products than in years past.

The agency said in October that about 1.8% of middle- and high-schoolers – about 890,000 young people – reported using nicotine pouches. That's up from 1.5% in 2023. The American Lung Association puts the numbers even higher, saying that a quarter of people who use nicotine pouches are underage.

Their reasons for using can vary, Halpern-Felsher said. Some are trying to kick an addiction to e-cigarettes. Others just like the flavors and the head rush that come with the nicotine, she said.

Some may also be self-medicating for conditions like depression or anxiety. "We know the mental health crisis is real, and we're very concerned about self-medication," she said.

Experts say parents should talk to their children about the risks of nicotine products and watch for sudden changes in behavior or secrecy, such as disappearing for a prolonged period of time. Nicotine may make them irritated or anxious and may curb hunger.

Also watch for containers that look like a pack of mints or for the nicotine pouches themselves, which may become visible when they're talking.

If a child is using and want to quit, parents should help them come up with a plan. It's better to respond with support than punishment, according to the [Truth initiative](#), a nonprofit dedicated to helping people break a nicotine addiction.



Nicotine pouches for your mouth are becoming increasingly popular. Here's why health experts are concerned

Efforts to tackle youth usage

Philip Morris, the tobacco giant that bought Zyn maker Swedish Match, has leaned into smokeless products as people move away from cigarettes. Sales of Zyn have increased 300-fold since 2016. In the first quarter of 2024, Philip Morris said, it sold 131.6 million cans worldwide, up 8.2% from the same period in 2023. The company said it anticipates selling 560 million cans this year alone.

Philip Morris' website clearly requires users to verify that they are 21 and that they use tobacco products. If a person says they don't use tobacco products, they get a screen that says the product is not for them.

After the [District of Columbia](#) went to court over sales of Zyn this year, arguing that they violate the area's ban on flavored products, the company stopped online sales, but it still offers incentives and rewards like Zyn branded merchandise and gift cards for people who purchase the products.

In December, Swedish Match North America, a subsidiary of Philip Morris, reached a settlement with the district and said it would pay \$1.2 million; it also promised to better monitor how its products were distributed.

Earlier this year, Senate Minority Leader Chuck Schumer urged the U.S. Food and Drug Administration and the U.S. Federal Trade Commission to [investigate](#) Zyn sales, particularly to young people. Some Republicans criticized the effort with allegations of a "nanny state," and Rep. Marjorie Taylor Greene, a Republican from Georgia, called for a "Zynsurrection."

The FDA [said in April](#) that it has taken some action, sending 119 warning letters to retailers selling Zyn to underage buyers.

More states and cities are banning flavored nicotine products, so they may be subject to further regulations. But often companies create new products or market them in a way that can be confusing.

Zyn nicotine pouches are all over TikTok, sparking debate among politicians and health experts

"They will often will claim the products are tobacco-free and are a safer alternative to smoking combustible cigarettes, and while they are likely safer than smoking combustible cigarettes, the reality is, we just don't know the short- and long-term impact of these products," said Dr. Cheryl Dennison Himmelfarb, who helped write the American Heart Association's policy paper and is the vice dean of research at Johns Hopkins School of Nursing and the School of Medicine and Public Health.

"Whether it's nicotine delivered from tobacco or not, it's addictive and not ideal for the developing brain."

Dennison Himmelfarb hopes that more stores will enforce the legal age limit and that policy-makers will focus on restricting the use among young people.

Halpern-Felsher said she and her team at Stanford are building a Zyn-specific prevention curriculum in addition to the smokeless tobacco prevention curriculum that they have taken to thousands of schools nationwide.

"We are that concerned about Zyn," she said.