

1-877-YALE-MDS

What Parents Should Know About Nicotine Pouches

BY [**CARRIE MACMILLAN**](#) JULY 22, 2024

A Yale tobacco researcher discusses the latest nicotine product popular among youth.



Just as the use of [vaping](#) (e-cigarette) devices among young people began to decline—eliciting a collective sigh of relief from public health officials—a new, potentially worrisome product is gaining popularity among youth: nicotine pouches.

Unlike cigarettes and vaping devices, which produce smoke and vapor, nicotine pouches are more discreet and, therefore, harder for parents to notice. They are tucked in between a person's lip or cheek and gums; the nicotine is absorbed into their bloodstream through mucous membranes in their mouth.

These pouches do not contain tobacco, the plant—and known [carcinogen](#)—used in cigarettes and smokeless tobacco, which includes chew and dip. But they do have nicotine, a chemical found in tobacco. Health experts

say that nicotine has negative effects on everyone, but it is particularly dangerous for young people because it can cause physical changes in their still-developing brains. It is also a highly addictive stimulant.

Nicotine pouches were introduced in the United States in 2014. The Food and Drug Administration (FDA)'s traditional "safe and effective" standard for evaluating medical products doesn't apply to tobacco and nicotine products. Instead, [the FDA regulates them](#) based on an intention to reduce the toll that using tobacco and nicotine has on public health.

Because nicotine pouches are relatively new, the short- and long-term health consequences of using them are unclear. And while some suggest that they may not be as harmful as cigarettes and [vaping](#) because they don't contain tobacco, there are other concerns, including nicotine's effects on cardiovascular and oral health (more on that below).

Nicotine pouches are sold online and in stores to people 21 and older, but they come in different flavors—including berry, cinnamon, citrus, coffee, and peppermint—that may be [appealing to youth](#). What's more, ZYN®, the top-selling brand worldwide, has "Zynfluencers" who promote the product on social media channels. Other brands include Rogue, Lucy, Juice Head, VELO, and On!

The good news is that the uptick in use among youth has not been as considerable as it was for vaping.

"Nationally, sales of nicotine pouches have risen dramatically in recent years, but it hasn't been the skyrocketing growth that was initially seen with [vaping](#)," says [Meghan Morean, PhD](#), a research scientist at the Yale Tobacco Center of Regulatory Science.

A [2023 study](#) from the Centers for Disease Control and Prevention (CDC) said that about 1.5% of middle and high school students reported using nicotine pouches in the last 30 days. That's compared to 10% who reported using any tobacco product, which includes cigarettes, cigars, e-cigarettes, and nicotine pouches.

Below, Morean answers common questions about nicotine pouches.

What are nicotine pouches?

Nicotine pouches are small rectangles that are about the size of a piece of Chiclet® gum. They contain nicotine that is either synthetic or derived from tobacco and, as mentioned above, come in a variety of flavors. They are often sold in tins of 15 to 20 pouches and come in varying strengths. One brand, for example, sells tins in either 3 or 6 milligrams of nicotine per pouch; another brand sells pouches with 13 milligrams of nicotine per pouch.

"They are small, skinny, flavored little pouches," Morean explains. "You put them in your mouth, most commonly tucked between your gum and upper or bottom lip. Then, you leave it sitting for a while, so that the nicotine can be absorbed through the inner lining of your cheek and into your bloodstream. Some nicotine can also get into your system by swallowing the juice. When you are done, you take it out and throw it in the trash."

How long someone keeps a pouch in their mouth can vary. "Some sites tell people to leave it in their mouths for 15 minutes or up to a half hour or 45 minutes, but there isn't an instruction manual for them," Morean says.

Pouches have similarities to nicotine gum, such as Nicorette®, which is used to help people quit smoking, Morean says. "Nicorette is similar in that it contains 2 to 4 milligrams of nicotine, and you let it sit in your

mouth," she says. "But there are two key differences. The first is that people say Nicorette doesn't taste very good, which makes sense as you wouldn't want to make it in ultra-appealing flavors to attract kids. But nicotine pouches are available in different, appealing flavors. The second is that Nicorette is an FDA-approved smoking cessation tool, whereas pouches are not."

Are nicotine pouches dangerous, especially for kids?

[Tobacco use is the leading preventable cause of cancer and cancer deaths](#). Nicotine may not contain the chemicals and toxins found in cigarette smoke, but it is highly addictive. It can also negatively affect the entire body, causing lung and stomach problems, increasing blood pressure and heart rate, and narrowing arteries, which can lead to a heart attack.

And while nicotine pouches may be a safer alternative to cigarettes or vaping because they don't contain the known carcinogens associated with tobacco and are not inhaled in the lungs, they still are not recommended as something people should pick up. And they are especially not meant for youth, says Morean.

That said, long-term data about the health risks of nicotine pouches are not yet available. "We don't know what happens, over time, when you have varying strengths of nicotine sitting in your mouth in a pouch," Morean says. "It's possible that the risk is very minimal. But it's also possible that it has an effect over time. There are studies looking at changes in cheek cells, but we don't have all the information yet. We do know that it can irritate your gums in the short term, and some people find that nicotine gives them an upset stomach."

Morean also notes that nicotine is a stimulant. "For adolescents and young adults, nicotine has detrimental effects on the developing brain. When your brain is forming, nicotine use can cause issues, including increased impulsivity and ADHD-type cognitive symptoms," Morean says.

It can also lead to a predisposition to addiction, both to nicotine and other substances. If someone, including a child, is new to using nicotine, they also will feel a "buzz," Morean says.

"The feeling doesn't last long; it's like a little head rush where you feel lifted," she says. "But after using nicotine regularly, your body gets used to it, and you don't get that buzz anymore. Once you become dependent on it, you just feel normal when you have it. And when you don't have it, you start having cravings, headaches, or other withdrawal symptoms that indicate, 'Hey, time for another one,'" she says. "Then, you have another one, and your withdrawal symptoms go away, and you get back to baseline."

It becomes a cycle of withdrawal and then fixing that withdrawal, she adds.

Are nicotine pouches a better alternative to smoking cigarettes, vaping, and smokeless tobacco?

Because nicotine pouches don't contain tobacco, one might suggest they are on the lower end of the continuum of risk, notes Morean. For example, if an adult smokes or uses smokeless tobacco, the pouch may be a better alternative because it's delivering nicotine—not tobacco, she says.

So, for adults, it could be a viable alternative to things that are really harmful, but we don't want kids using it, she adds.

"Also, it's still nicotine, so pregnant people shouldn't use it either. People may think, 'I'm pregnant, and I can't smoke. I'll use a pouch instead.' But nicotine is bad for fetal development as well," says Morean. "So, there are different messages based on the audience. We don't want to say it's all bad, because it could be a safer alternative for adults trying to quit. But, as I've mentioned, we need more research to see the short- and long-term health effects."

What else should parents know about nicotine pouches?

Just as parents should talk to their children about the risks of vaping, cigarettes, cannabis, alcohol, and other substances, they should do the same with nicotine pouches, Morean advises.

"Even though it's not incredibly prevalent right now, nicotine pouches are around and kids are using them. They may not look dangerous as they don't produce any smoke, but we know they are addictive, and we know nicotine is not good for developing brains," she says.

Morean also notes that adults who use nicotine pouches should keep them out of reach of small children and pets. "The packaging isn't particularly appealing, but they could look like mints, and while some say they are in child-protective packaging, they can be easy to open," she says.

YM [Read more Yale Medicine news](#)

Related Fact Sheets

Quit Smoking

Tobacco dependence treatment and research are priorities at Yale Medicine; we offer new therapies and clinical trials to help people quit smoking.

Smoking and Cancer

Stopping smoking makes cancer treatments more effective, lessens treatment complications, and decreases the chances of cancer returning.

RELATED TERMS:[Nicotine Dependence](#)

More news from Yale Medicine

FAMILY HEALTH

[Nicotine Addiction From Vaping Is a Bigger...](#)

DOCTORS & ADVICE, FAMILY

HEALTH

[When to See an ENT: How to Know If You...](#)

FAMILY HEALTH

[Omicron, Delta, Alpha, and More: What To...](#)