

Supporting the Whole Child: Connecting Brain Health, Systems, and Practice

Supporting Youth Through Vaping Cessation: A Shift in Mindset

August 27th, 2026
Session #10



What This Series Is

- An ongoing, twice-monthly learning series
- Grounded in the Whole School, Whole Community, Whole Child (WSCC) framework
- Interactive and case-based (not just presentations)
- Designed for multiple disciplines and perspectives
- Focused on real-world practice and collaboration

A space to learn, share, and problem-solve together in support of the whole child



Amanda Olinger, DO MA FAAP
**University of Kansas Health
System**

Associate Professor of Pediatrics
Site Director of Pediatric Services at
KU Marillac

Elly Leavens, PhD
**University of Kansas Medical
Center**

Assistant Professor and Licensed
Clinical Psychologist



Today's Session

- Review prevalence of vaping among youth
- Examine how nicotine and vaping affect the whole person
- Review nicotine addiction as a diagnosis, not simply a behavior
- Explore how to take a supportive approach to nicotine dependence
- Examine nicotine dependence through behavioral and medication support
- Identify approaches for implementing cessation support implementation in the school setting
- WSCC component(s):
 - Health Education
 - Health Services



Learning Objectives

1. Understand the use of nicotine among youth
2. Explain the physical harms of nicotine and vaping
3. Identify evidence-based strategies to support youth cessation
4. Explain strategies for implementing cessation in the school setting



The issue: youth nicotine use

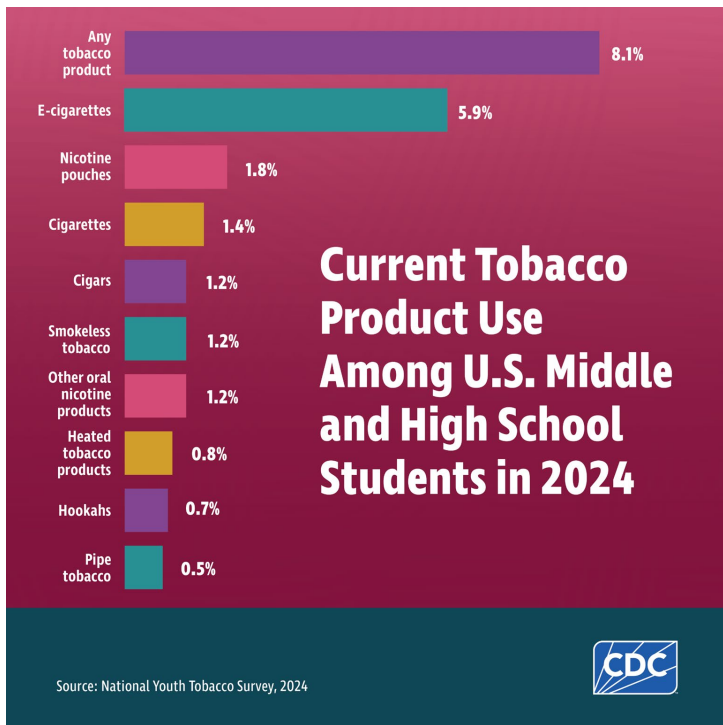
Results from the Annual National Youth Tobacco Survey

Information became available on October 17th, 2024

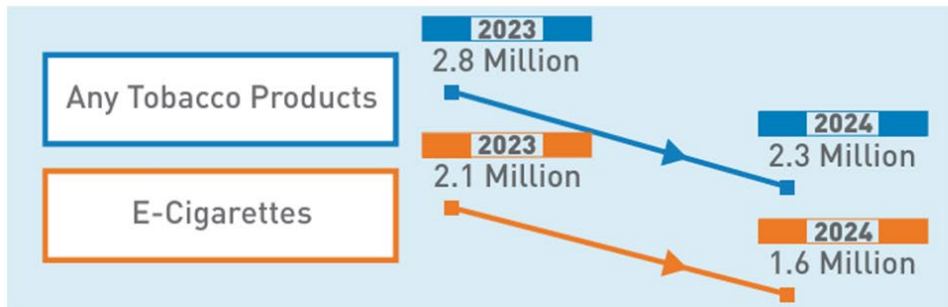
U.S. Food & Drug



Estimates of current tobacco use among youth



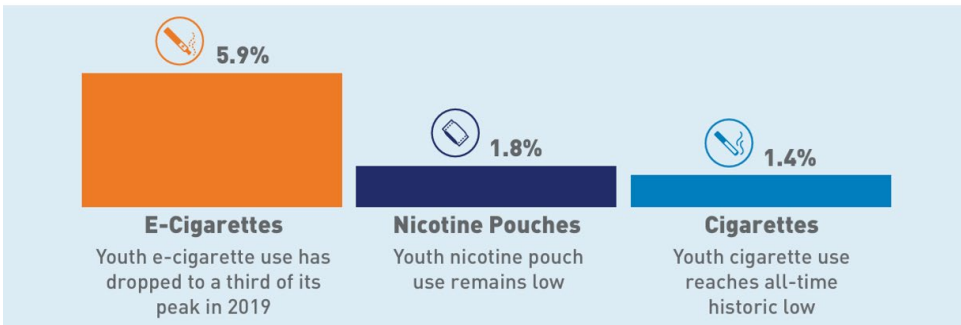
Use among middle and high school students



The decline in use of all tobacco products is largely attributable to the drop in students who used e-cigarettes.



Most commonly used products among middle and high school students:



Among those who reported current e-cigarette use, 26% used them daily, likely leading to significant dependence and difficulty quitting.



2024 Findings on Youth Use for E-Cigarette Products

Among those who reported current e-cigarette use:



Majority (87.6%) used
flavored e-cigarettes
with fruit flavors being the most popular, followed by candy and mint

Youth use of tobacco products in any form - including e-cigarettes - is unsafe.
Keeping tobacco products out of the hands of youth
remains a top priority for the FDA.

Note: Current use: use on ≥1 day during the last 30 days. All numbers presented here are estimates.

Source: Jamal A, Park-Lee E, Bindley J, et al. Tobacco Product Use Among Middle and High School Students — National Youth Tobacco Survey, United States, 2024. MMWR Morb Mortal Wkly Rep 2024;73:917-924.
Park-Lee E, Jamal A, Cowan H, et al. Notes from the Field: E-Cigarette and Nicotine Pouch Use Among Middle and High School Students — United States, 2024. MMWR Morb Mortal Wkly Rep 2024;73:774-778.



More than 85% of youth
who currently use
e-cigarettes or nicotine
pouches **report using
flavored products.**



Source: National Youth Tobacco Survey, 2024

Most used ONPs: Zyn
(82%), On! (16.9%),
and Velo (12.3%)



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IT RAINS

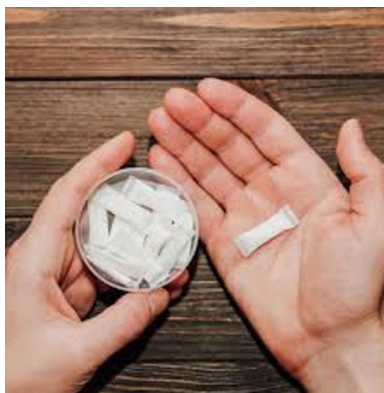


CONVENIENT
AND DELICIOUS

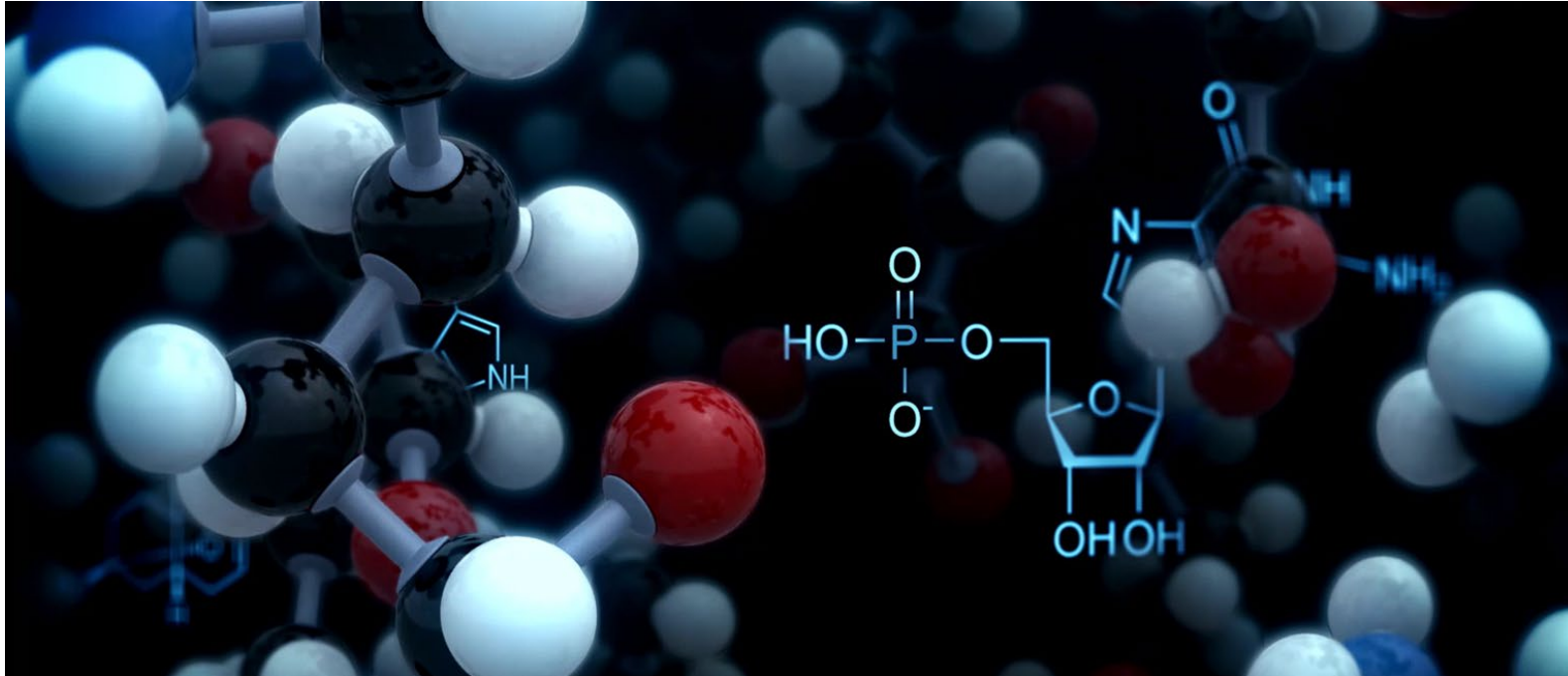


Brands and products used by youth

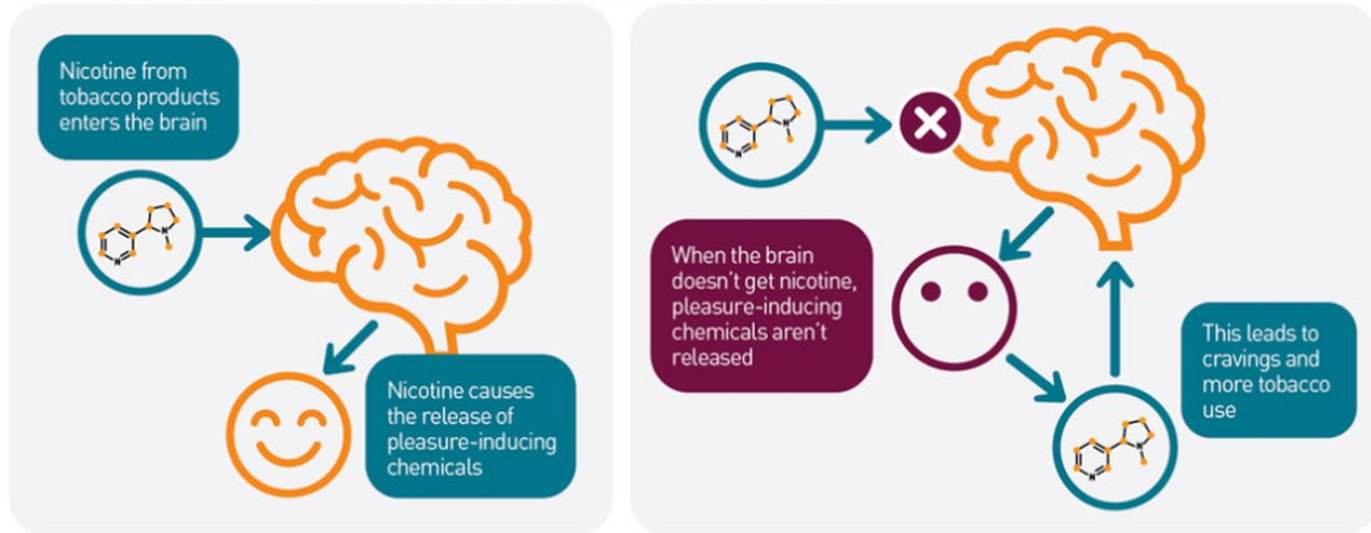


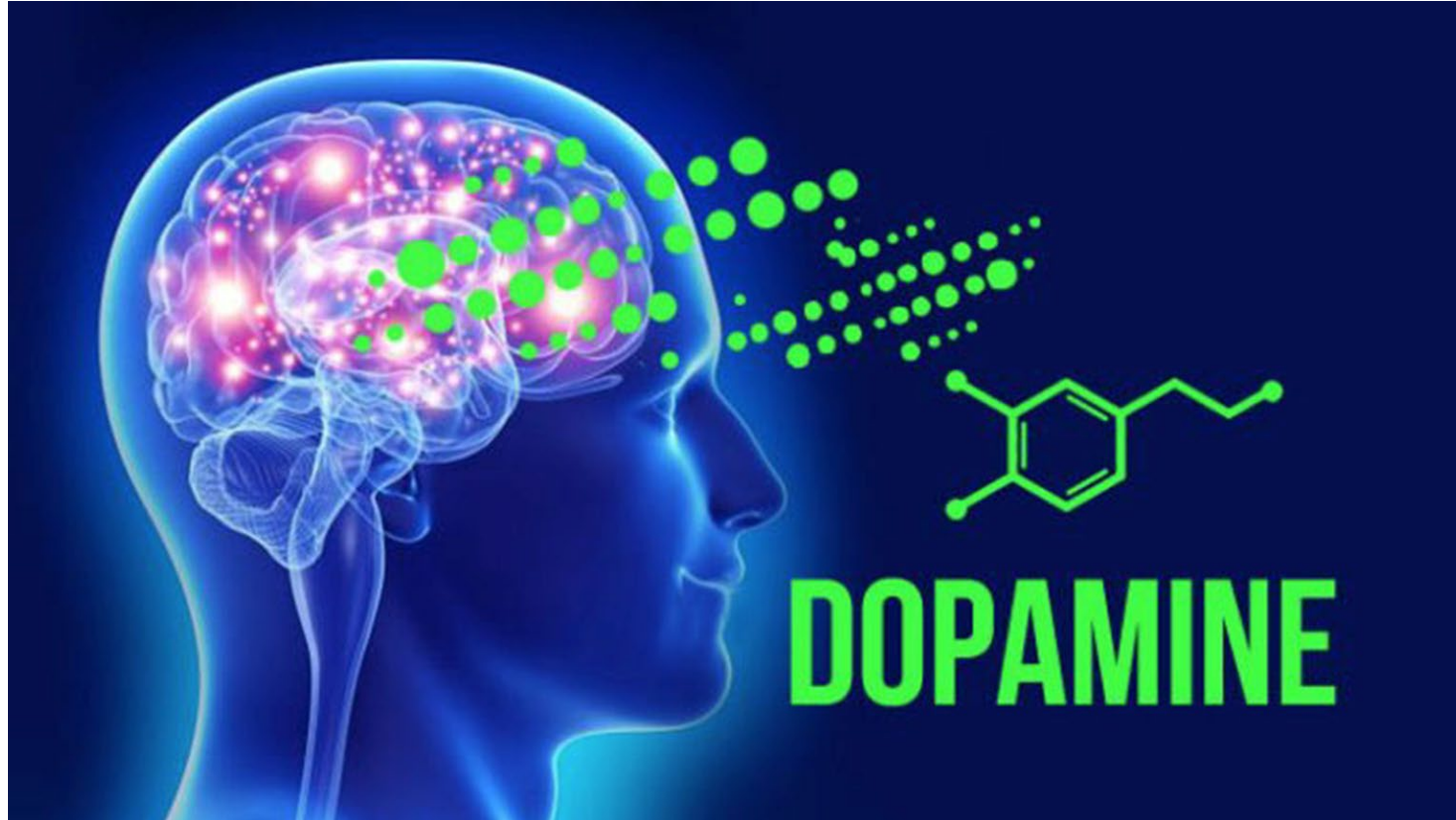


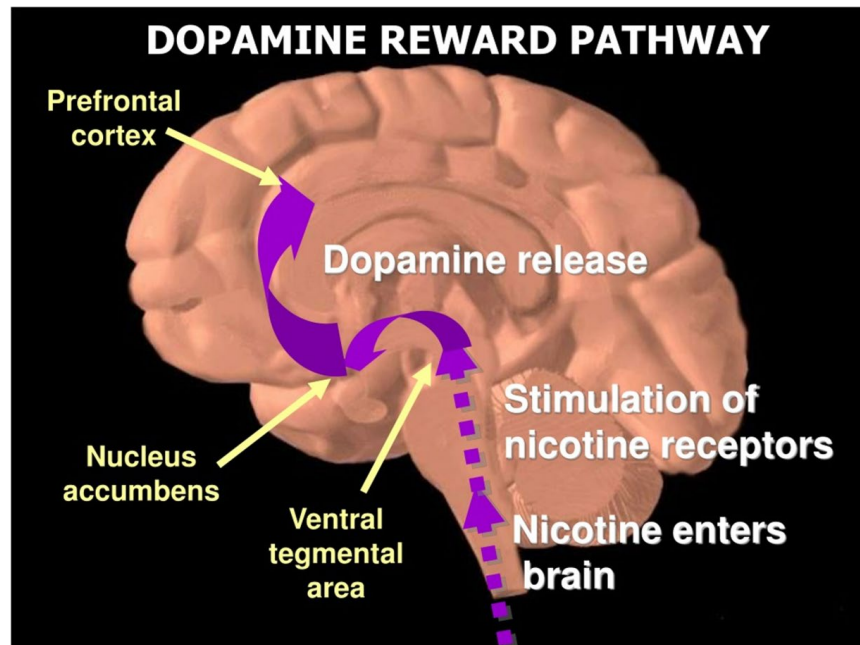
Effects of nicotine on physical and mental health

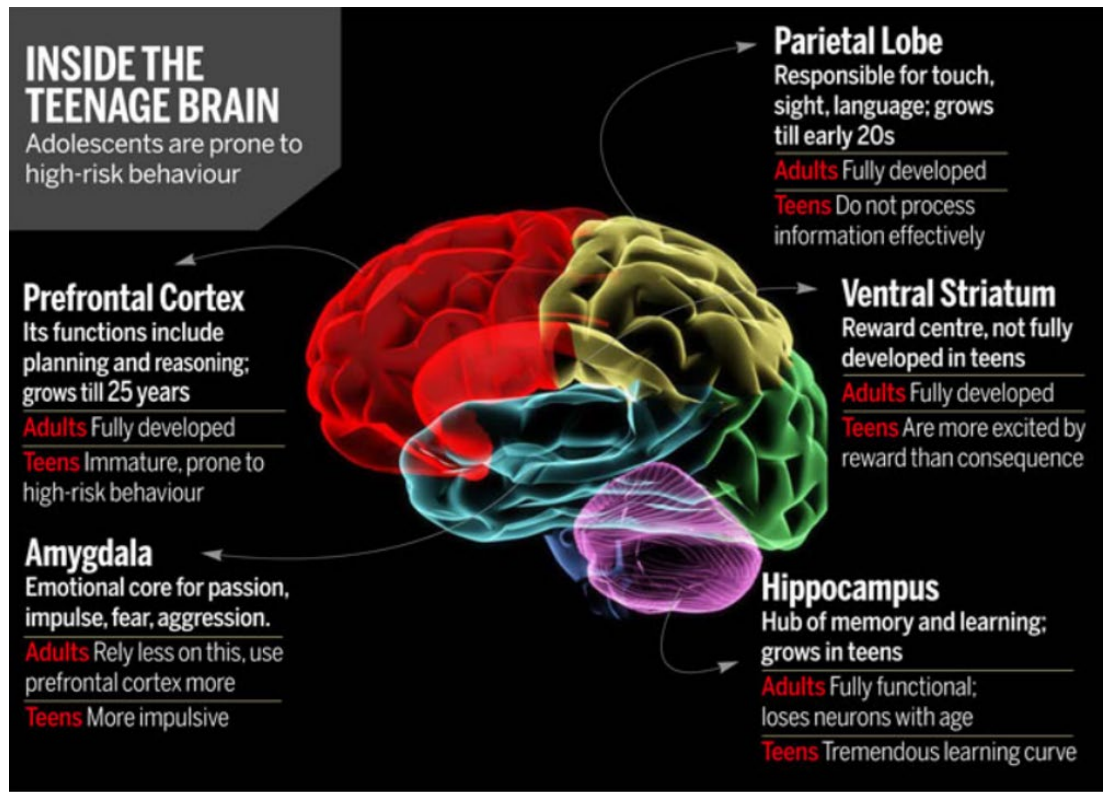


The Brain on Nicotine









Obisesan, JAMA Open Network, 2019
Goriounova et. Al., Cold Spring Harb Perspec Med, 2012
<https://www.sexualhealthtayside.org/lessons/the-adolescent-brain/>



Nicotine's impact on the teen brain

- Neurotoxic effects on the Prefrontal Cortex (planning/reasoning center)
- Interferes w/ cognitive development, executive functioning and inhibitory control
- Teens develop faster nicotine dependence than adults
- Teens are 2x more likely to report depression due to nicotine use
- Higher incidence of addiction to other substances
- Poor academic performance





HEALTH IMPACTS OF VAPING

Research shows that vaping is dangerous for your health. While e-cigarettes are too new for us to know all of the ways that vaping will impact your body in the long term, we do know that vaping is not safe.

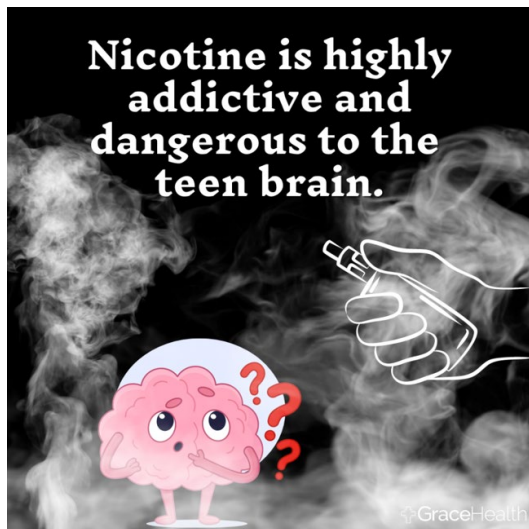
- E-cigarette vapor contains lead and nicotine which can cause life-long **PROBLEMS WITH BRAIN DEVELOPMENT** for children and teenagers. The nicotine in e-cigarettes is **EXTREMELY ADDICTING** and may prime the brain for addiction to cigarettes and other substances.
- Vaping **HURTS YOUR HEART AND BLOOD VESSELS** by changing your blood enzymes in the same way that cigarettes do.
- Vaping **HURTS YOUR LUNGS** by shutting down their natural defense system and leaving you more vulnerable to illnesses like bronchitis and pneumonia. Vaping also **MAKES ASTHMA SYMPTOMS WORSE**.
- E-cigarettes create many of the same **CANCER-CAUSING CHEMICALS** that are in cigarettes, including formaldehyde and volatile organic compounds like benzene.
- E-cigarette vapor contains heavy metals that cause **LUNG, LIVER AND HEART DAMAGE**.
- Nicotine can make it **HARDER TO CONTROL YOUR BLOOD SUGAR LEVELS** if you have diabetes.
- Vaping nicotine-free e-liquids **DOES NOT PROTECT YOU** from many of these health hazards.

Physician Advocacy Network
a part of the Texas Medical Society
www.panmn.org



Nicotine

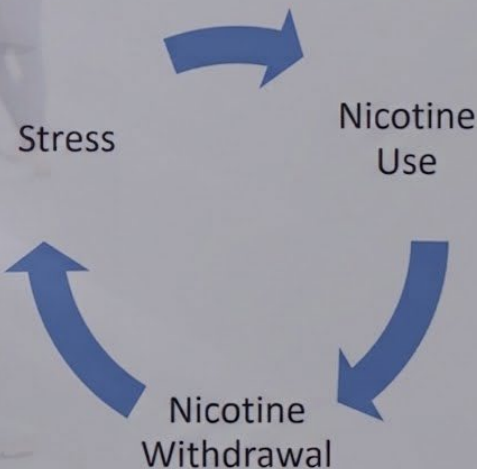
Third most addictive substance, behind heroin and cocaine, and can increase risk of addiction to other drugs.



#1 reason for current e-cigarette use

I am feeling anxious, stressed or depressed

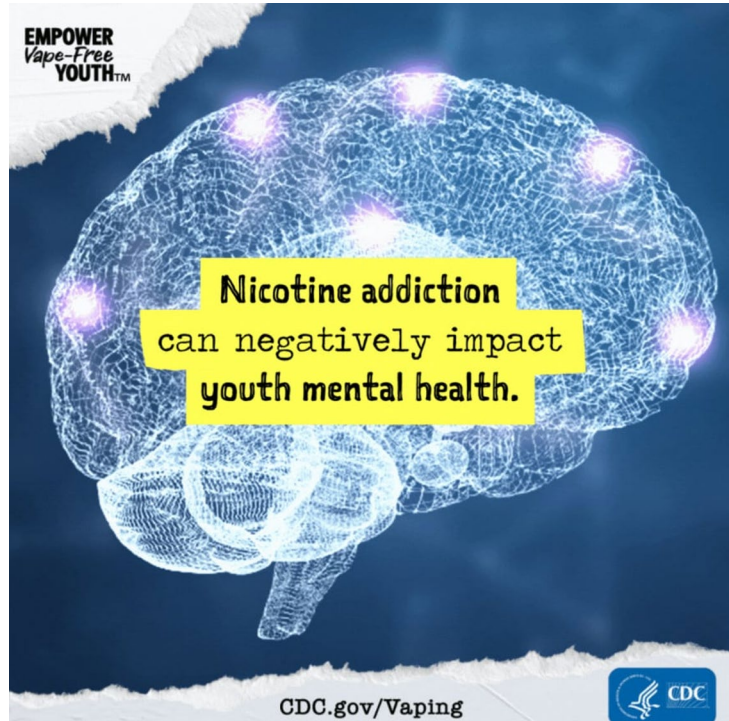
Nicotine Addiction is a Source of Stress



Source: Gentzke AS, Wang TW, Cornelius M, et al. Tobacco Product Use and Associated Factors Among Middle and High School Students — National Youth Tobacco Survey, United States, 2021. MMWR Surveill Summ 2022;71(No. SS-5):1–29.



Vaping worsens depression in youth



Research indicates that **youth who vape are twice as likely to report symptoms of depression**, and many turn to nicotine as a coping mechanism of anxiety or sadness. The belief that vaping relieves stress is misleading; in fact, nicotine dependence can worsen anxiety, disrupt sleep and impair concentration. Nicotine exposure interferes with brain development, increasing susceptibility to mood disorders. The cycle of stress leading to vaping, which in turn leads to more stress and dependency, poses serious risks to youth mental health.



Impact of vaping on social functioning in teens

Nicotine addiction leads to/worsens mental health issues

Decline in social interactions & relationships

Difficulty in maintaining friendships and engaging in social activities



Oliver AL, Kossowsky J, Minegishi M, Levy S, Weitzman ER. The Association of Vaping With Social/Emotional Health and Attitudes Toward COVID-19 Mitigation Measures in Adolescent and Young Adult Cohorts During the COVID-19 Pandemic. *Subst Abus.* 2023 Jan-Apr;44(1):73-85. doi: 10.1177/08897077231165860. Epub 2023 Apr 26. Erratum in: *Subst Use Addctn J.* 2023 Jul 18;8897077231185670. doi: 10.1177/08897077231185670. PMID: 37226905; PMCID: PMC10133863.



Nicotine Addiction is a Medical Condition

Shift the mindset - we are no longer talking about a kid having a cigarette behind the bleachers at school to fit in with the crowd. Vaping has changed the landscape and nicotine addiction is a public health crisis.

1 cigarette = 1mg nicotine

1 Geek bar = 40 packs of cigarettes, typically lasts 1 month if the person is a pack a day “smoker”



Nicotine concentration and quantity

- ▣ Nicotine concentration in a vape
 - 5% salt nicotine = 50mg nicotine/mL fluid
 - Geek Bar Pulse contains 16mL fluid
 - ▣ 800mg nicotine in a single device → 40 PACKS of cigarettes = 4 CARTONS
 - A pack a day smoker should make 1 Geek Bar Pulse vape last 40 days
 - Most people use up their vape in less than 1 month





It does not take much use to become dependent and we know teens are physiologically predisposed to addictive substances.

We need to stop wasting time on time out and start treating the underlying cause.



The role of the industry

Philip Morris: Today's teenager is tomorrow's potential regular customer, and the overwhelming majority of smokers begin to smoke while still in their teens...The smoking patterns of teenagers are particularly important to Philip Morris.

Lorillard Tobacco: The base of our business is the high school student.

Youth may have experimented with tobacco, not knowing how addictive it is, and now find themselves unable to quit

The adversary is NICOTINE (and the tobacco industry), not the student



The vast majority of tobacco products contain nicotine, a highly addictive chemical

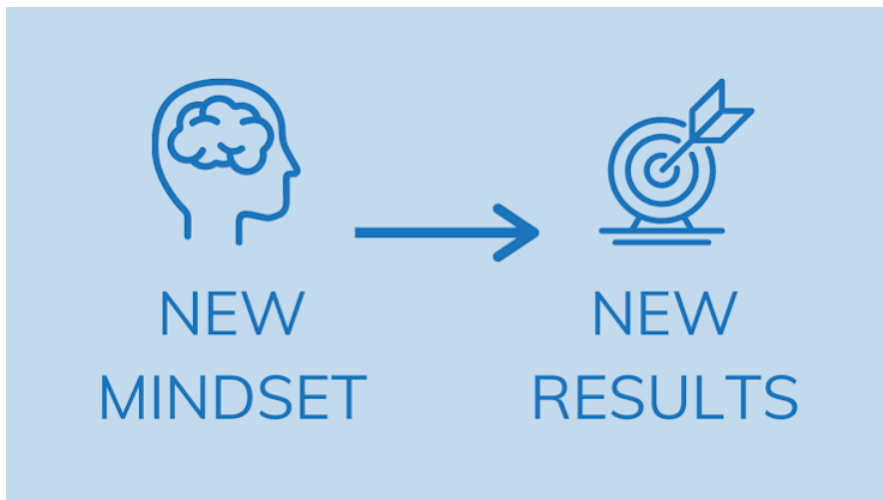
Nicotine is much more addictive than other substances, including alcohol and marijuana

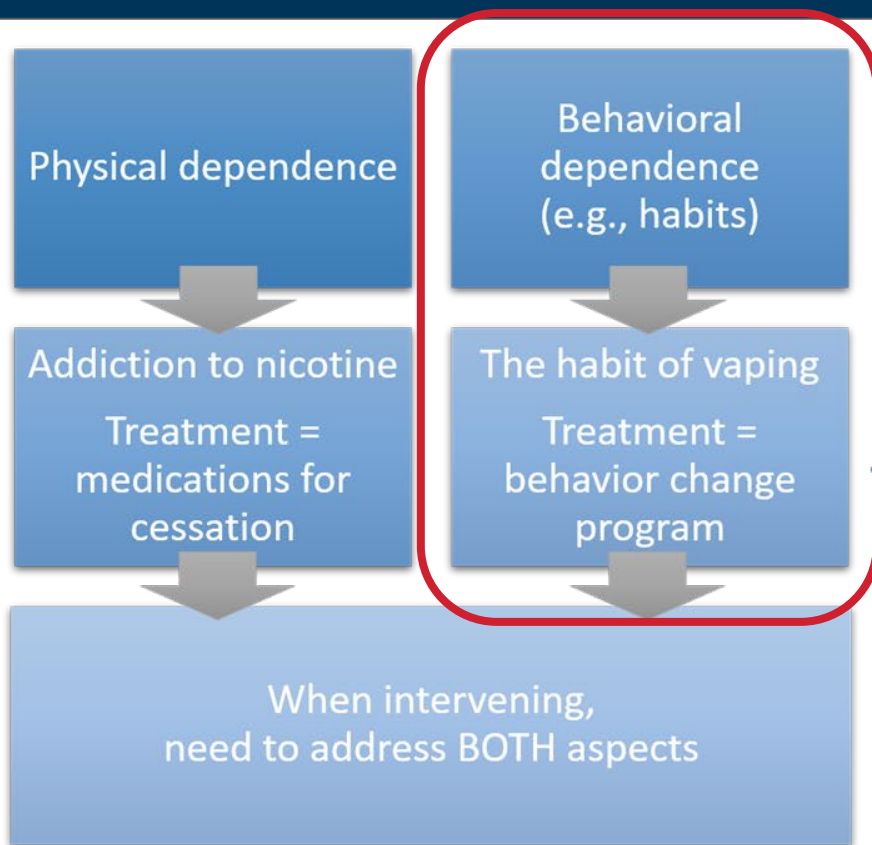
- About 10-20% of drinkers develop dependence (or become “addicted”)
- Over 70% (up to 90%) of nicotine users develop dependence



Shift the mindset

A student/youth who is caught using nicotine multiple times is not a “bad kid” to be disciplined, they are dependent on nicotine and need support.





- Habits that get paired with nicotine use:
 - Eating
 - Drinking certain drinks
 - Driving in the car
 - Breaks at work or school
 - Spending time with friends



Behavioral counseling

First, what should we avoid when addressing nicotine/tobacco use?

Years of research tells us what does NOT help youth that are already addicted

- Education alone
- Discipline (even repeated discipline)
 - Discipline does not address physical or behavioral dependence
 - In fact, is sometimes associated with poorer long-term school-related outcomes



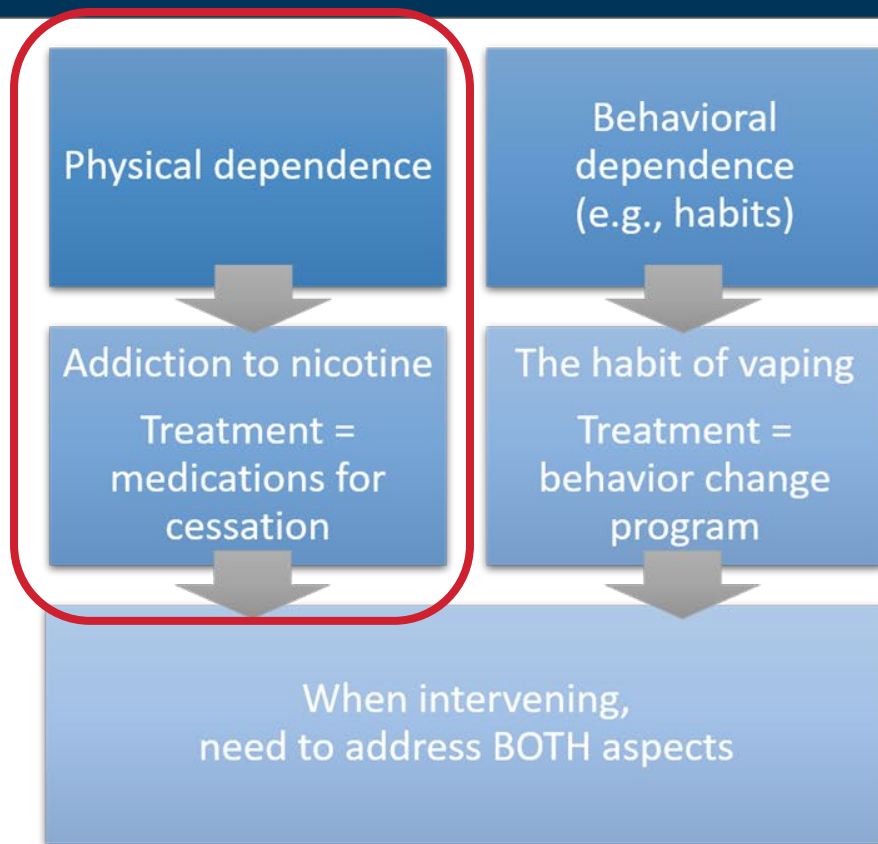
Behavioral counseling

What does work?

Teaming up with the youth to fight their nicotine dependence together

- Connection to a pediatrician
- Referral to behavioral support
- Follow-up by a caring adults
- Role of suspension (alternative options)





- Habits that get paired with nicotine use:
 - Eating
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School nurse!!



Pediatrician!!



Implementing cessation in the school setting

Vaping and Nicotine Cessation in Education

- Statewide initiative to equip schools with evidence-based strategies for addressing nicotine and tobacco cessation in the school setting
- Includes:
 - Shifting the mindset
 - Shifting from punitive to non-punitive interventions
 - Effective communication around behavior change
 - Policy changes to support students and encourage non-use
 - Making effective referrals to care



Andover High School

We have provided students with an opportunity to reduced their out of school suspension of three days for possession of nicotine to one day if they complete the Aspire Tobacco Education online program. We have followed up with students in order to gather feedback on the time spent to complete the course, if they found it beneficial, and their overall thoughts.

Feedback has been positive and it appears to be something we can implement.



Case Discussion

Jordan is a 14-year-old who has always been a good student. Over the past several months, teachers have noticed that Jordan seems more distracted, asks to leave class frequently, and has become irritable - particularly during his longer classes.

One afternoon, a teacher notices Jordan returning from the restroom smelling sweet and fruity. Later that week, while walking down the hall, that same teacher sees a vape fall out of Jordan's pocket before they quickly picked it up. School policy requires confiscation of the device and a referral to the assistant principal.



Case Discussion

During the meeting, Jordan shrugs and says, “It’s just vaping. Everybody does it.”

When asked more Jordan states,

- I don’t even feel buzzed anymore when I use it
- When I don’t vape for a few hours, I start to get really anxious
- I can’t focus in class unless I’ve hit it
- I’ve tried to stop but I always end up coming back to it



Case Discussion

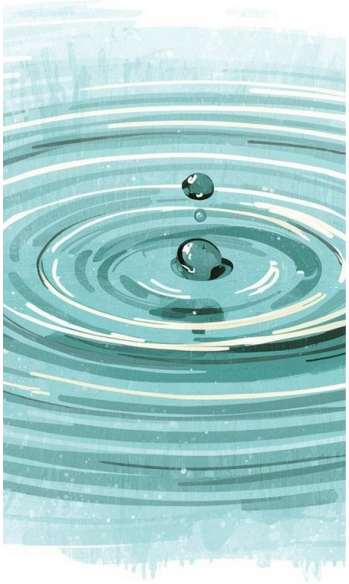
What are your first concerns?

What signs suggest this is more than simple rule-breaking?

How could discipline and health both be addressed?



Today's Ripple



- Nicotine is harmful to youth
- Nicotine dependence develops quickly and should be treated as a medical disorder
- Nicotine dependence cannot be treated with discipline, only evidence-based supports
- Integrating cessation practices into the school setting is feasible and supports student health



Thank you!



What's Next

Supporting Youth Through Vaping Cessation: Starting the Conversation

Join us September 9th at 9 AM CST with Amanda Olinger
& Elly Leavens!

