

# VAPING, NICOTINE, AND CANNABIS: A BRIEFING FOR SCHOOLS



**CALIFORNIA**  
**SCHOOL-BASED**  
**HEALTH ALLIANCE**

Putting Health Care Where Kids Are

# CDE TUPE

We gratefully acknowledge the support of the California Department of Education Tobacco Use Prevention Education program for this project. The contents do not necessarily reflect the position or policy of the CDE.

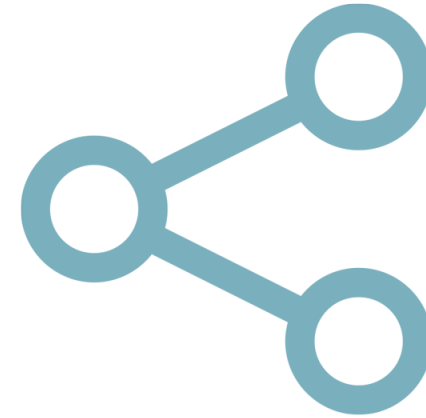




**For higher quality audio, dial the number from your webinar invitation link**



**The webinar is being recorded**



**Supporting materials will be shared**

# Putting Health Care in Schools

The California School-Based Health Alliance is the statewide non-profit organization dedicated to **improving the health & academic success** of children & youth by **advancing health services in schools.**

Learn more:

[schoolhealthcenters.org](http://schoolhealthcenters.org)



# Become a member, get exclusive benefits

- Conference registration discount
- Tools & resources
- Technical assistance

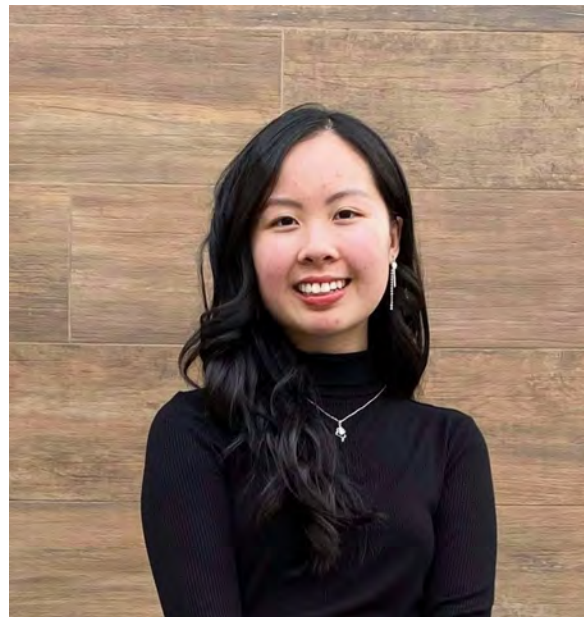
Sign up today:  
[bit.ly/CSHAMembership](https://bit.ly/CSHAMembership)





**Stephan Lambert**

Prevention Coordinator, Orange  
County Department of Education



**Tracy Nguyen**

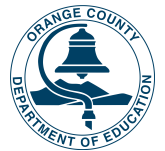
Training Manager, California  
School-Based Health Alliance

# Vaping, Nicotine, and Cannabis



A Briefing for Schools

Orange County Department of Education  
Educational Services Division



# Learning Objectives

- Identify current vaping, nicotine, and cannabis products
- Explain key facts and health risks to students and families
- Evaluate resources to support prevention, intervention, and cessation



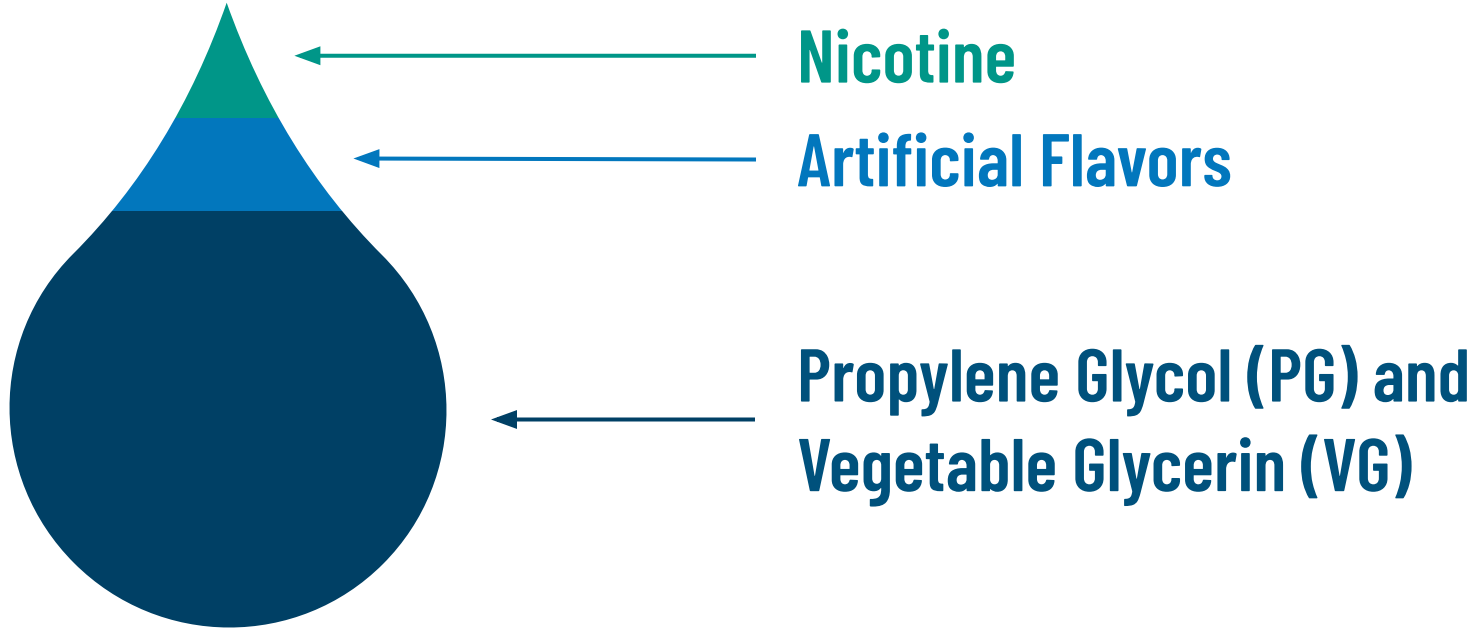


# Nicotine Salt Vaping

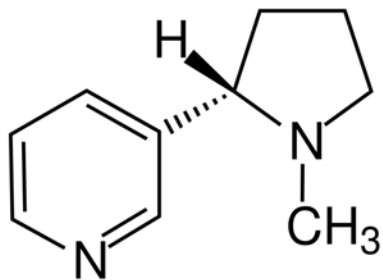




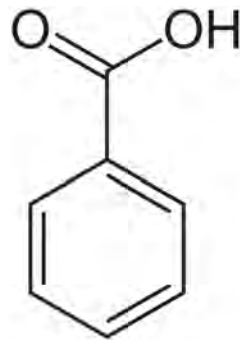
# What is E-Liquid?



# What is Nicotine Salt?



**Nicotine**



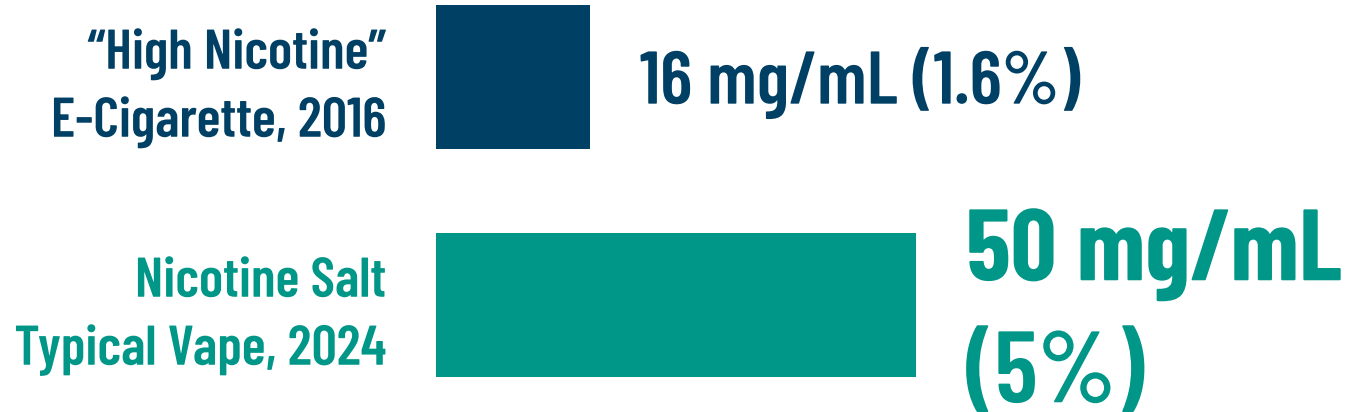
**Acid**

(ex: Benzoic Acid)

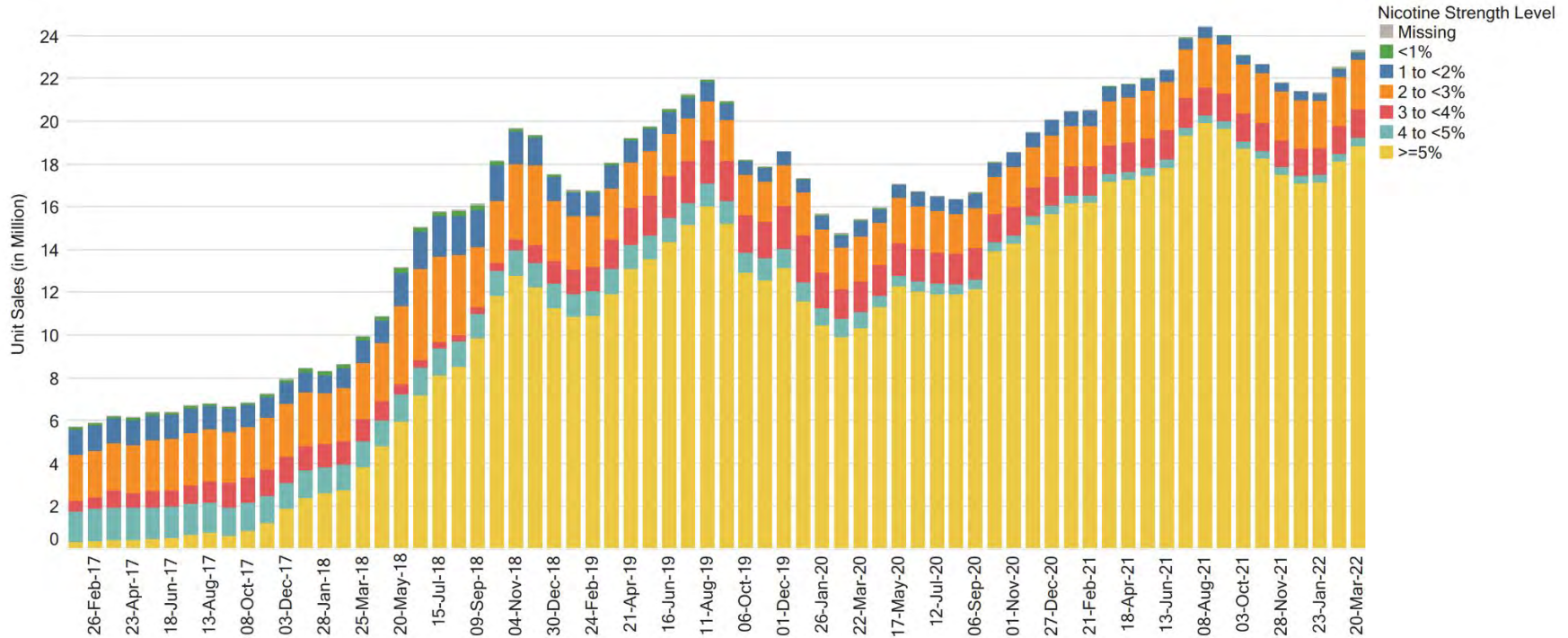
# Why add an acid?

Nicotine is basic. Adding acid can reduce the pH to the level of saliva, making it **less irritating** despite a high level of nicotine.

# Nicotine Salt Enables High Nicotine Levels



# Total e-cigarette unit sales by nicotine strength, United States, 2017-2022



# The Evolution of Nicotine Salt Vapes



**Pod Vapes**

Ex: JUUL

**Refillable**

Ex: Suorin Drop

**“Disposable”**

Ex: Puff Bar



# Today's "Disposable" Nicotine Salt Vapes







How much nicotine do you think this ELFBAR contains?



Cigarettes typically deliver **1 mg** of nicotine each.

This ELFBAR contains **650 mg** of nicotine and can deliver around **300**.

# Key Takeaways: Nicotine Salt Vaping



- E-cigarettes or vapes heat up a liquid to release an aerosol that carries nicotine into the lungs.
- Today's vapes use nicotine salt to deliver high levels of nicotine with deceptively little harshness.
- Most common vapes are "disposable" and hold large amounts of nicotine liquid.

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# Nicotine Pouches (ZYN)

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**WSJ | EXPLAINS**

# Smokeless Tobacco Products



## **Snuff/Chew/Dip**

Tobacco Leaf

## **Snus**

Tobacco Leaf

## **Nicotine Pouches**

Nicotine Powder



**Nicotine Powder**

**Flavorings and  
Sweeteners**



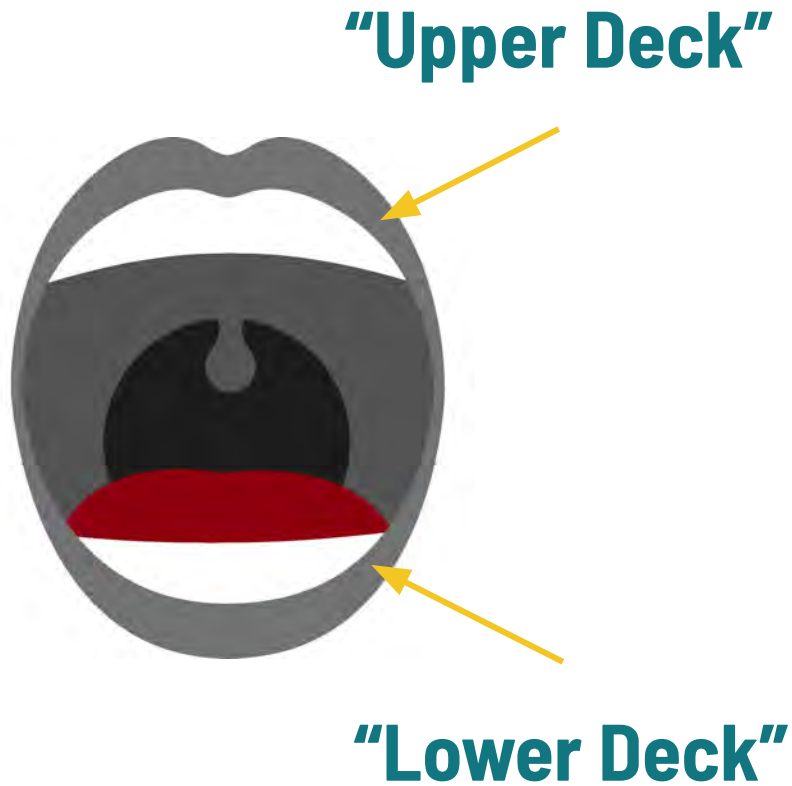
**Fillers and  
Preservatives**

**pH Adjusters**

**“Zyn”**

**“Pillow”**

**“Cushion”**





**ZYN**



**on!**



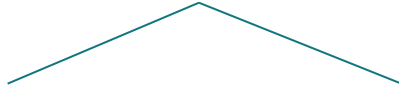
**VELO**



**ROGUE**



**Marlboro**



**ZYN**

**On!**



**CAMEL**



**VELO**

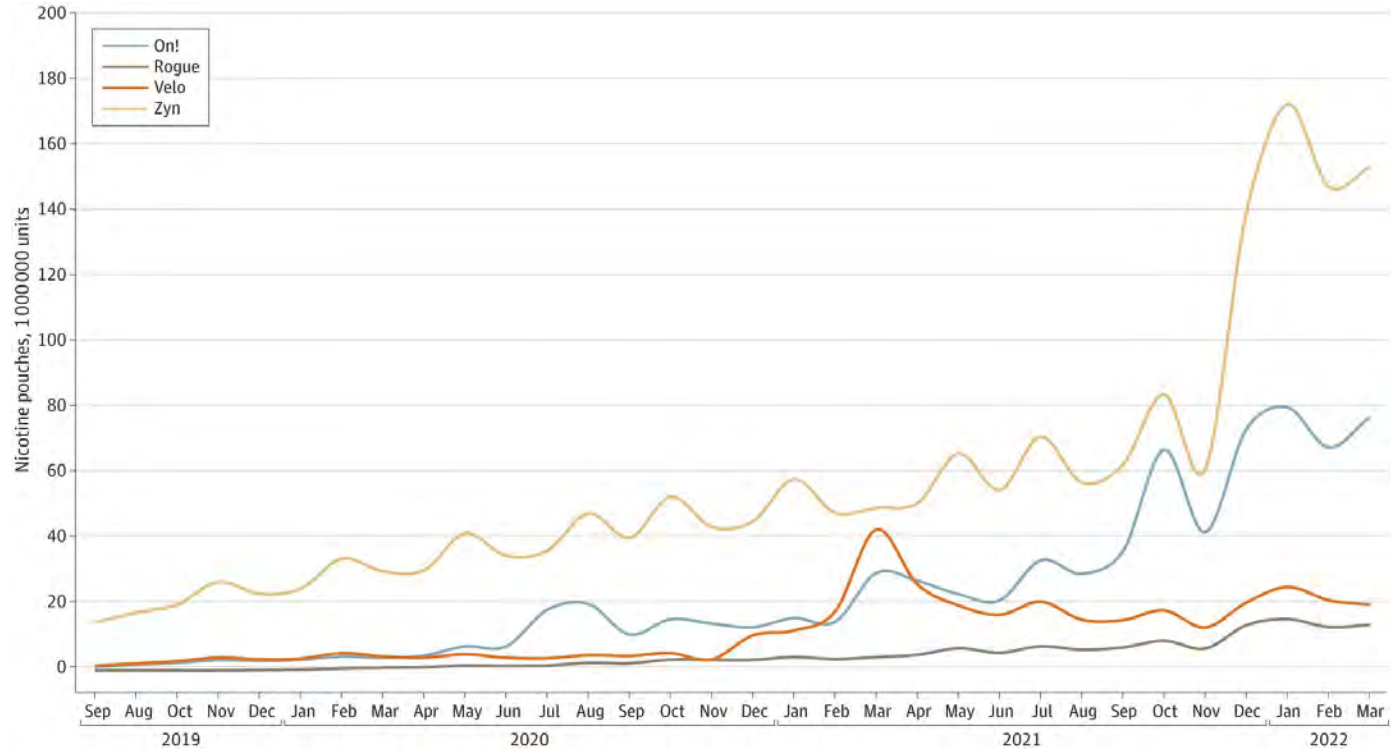
**SWISHER**



**ROGUE**



# Nicotine Pouch Unit Sales in the US by Brand from 2019 to 2022



**Nicotine's New Wave:** [Zyn Shortage](#) | [Zyn Imitators Rush In](#) | [Pros & Cons](#) | [Sweden and Snus](#) | [End of Menthol Cigs?](#)

Markets

## Philip Morris Lifts Annual Profit View on Zyn Pouch Strength

- Zyn pouch sales to range as high as 580 million cans in 2024
- Cigarette alternatives account for 38% of quarterly sales

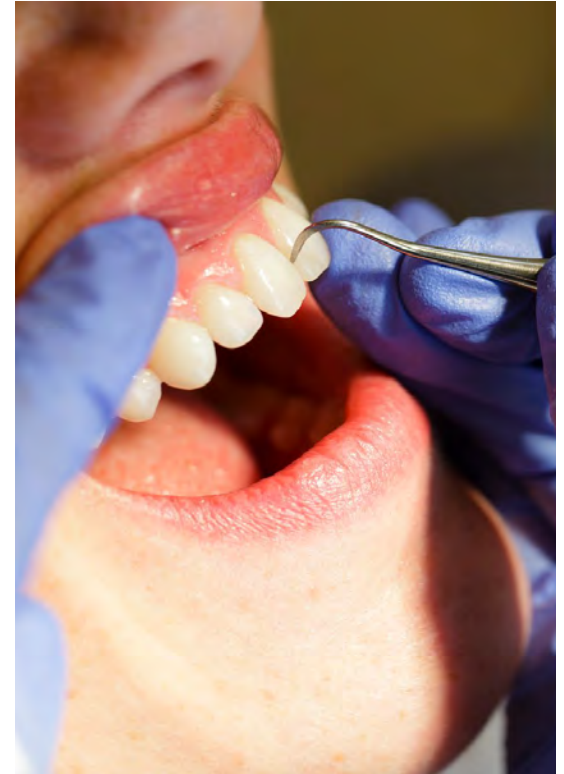


Studies have found using **one 6 mg nicotine pouch** for an hour delivers about as much nicotine as **up to three cigarettes**, though more **gradually**.

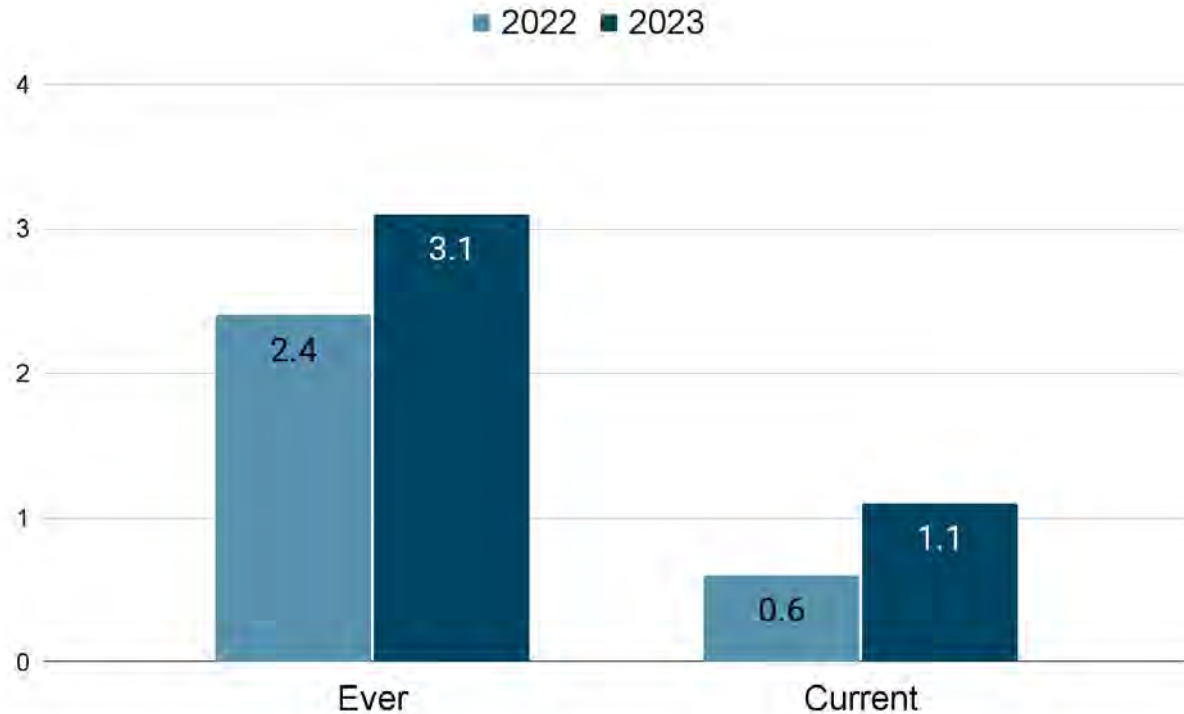


Nicotine pouches can **irritate the gums** in ways similar to other tobacco products.

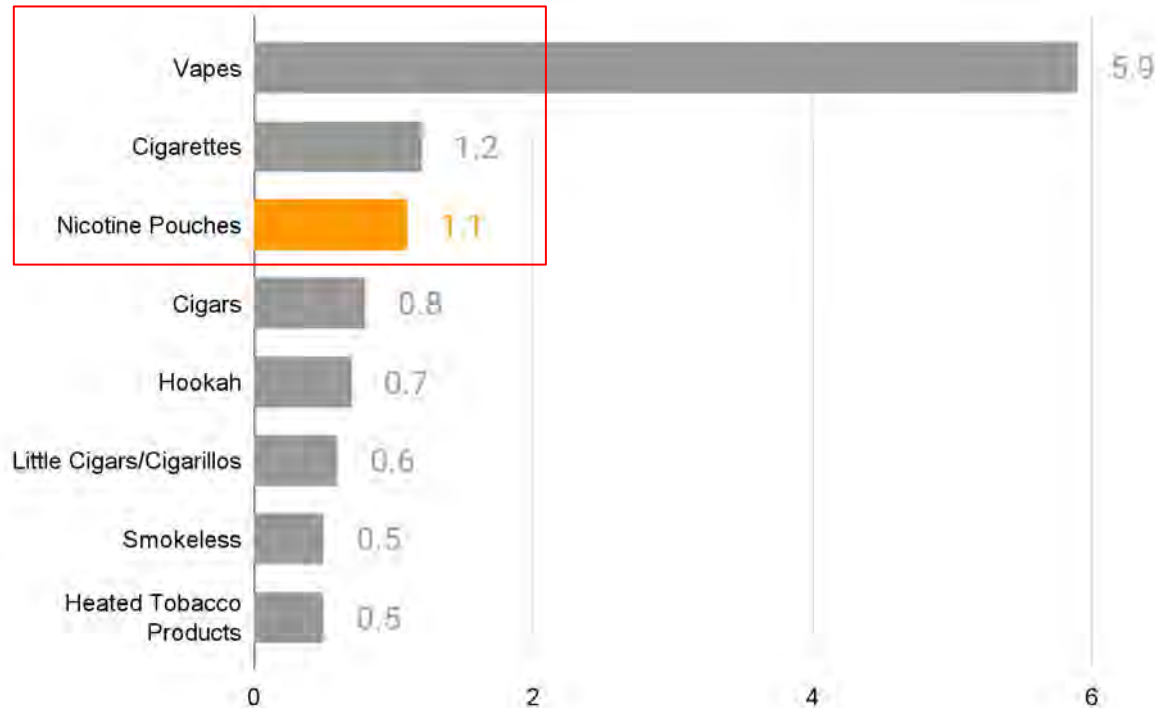
Whether they will cause gum disease or other oral health problems is unclear.



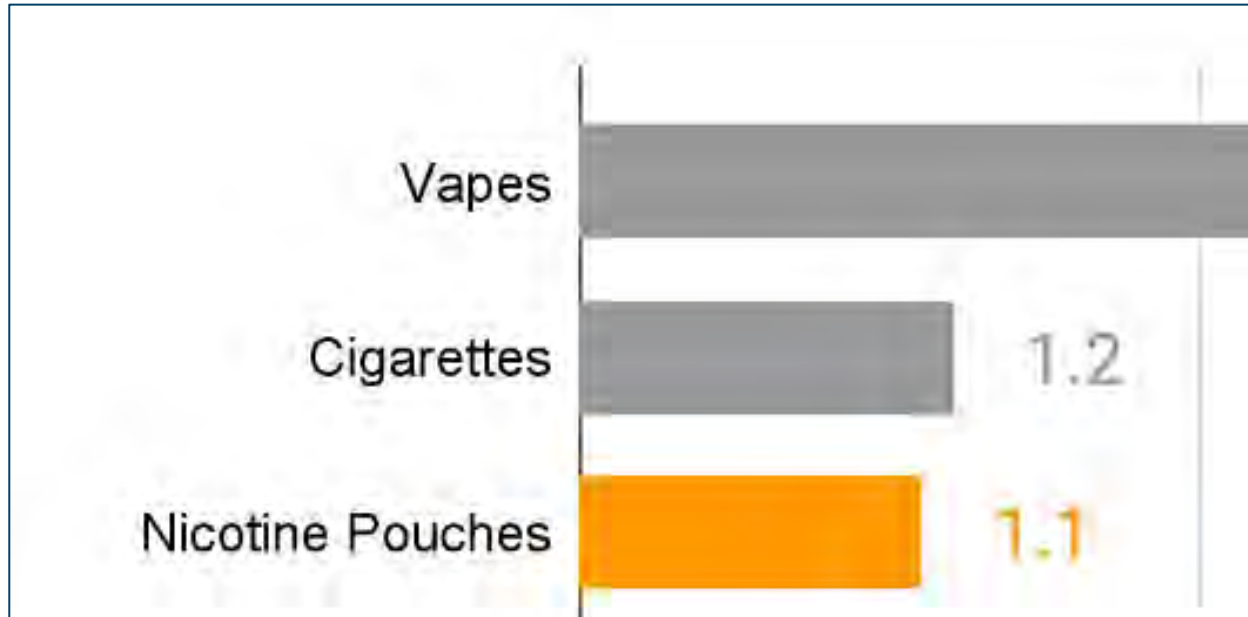
# Nicotine Pouch Use by California High School Students, %



# Current Product Use by California High School Students



# Current Product Use by California High School Students





**“Health Halo”**

A yellow starburst shape with a black outline and a slight drop shadow, containing the text "All-Natural!".

**All-Natural!**

A yellow starburst shape with a black outline and a slight drop shadow, containing the text "Keto-Friendly!".

**Keto-Friendly!**

A yellow starburst shape with a black outline and a slight drop shadow, containing the text "Plant-Based!".

**Plant-Based!**



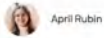
[Read more: American Spirit](#)

Researchers have found youth and young adults rate products labeled “tobacco-free nicotine” as **less harmful**.





## Meet "Zynfluencers": Smokeless nicotine pouches are having a moment



April Rubin



HEALTH

## Step aside, Ozempic — Zyn is being touted as the new (delusional) weight-loss quick fix

Mia de Graaf and Hilary Brueck May 17, 2024, 2:45 AM PDT

Share

Save



# Federal and State Regulations

- **Not FDA-approved** for cessation or as modified-risk tobacco products
- ZYN/VELO/On! FDA applications have been **under review since 2020**
- Classified as **tobacco products** in California



What flavor is “chill?”



# Key Takeaways: Nicotine Pouches

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- ZYN and other nicotine pouches contain nicotine powder and are held between the lip and gum.
- Tobacco companies are exploiting the label “tobacco-free nicotine” to make pouches seem safer.
- Social media “Zynfluencers” are rampant.
- Pouches have been in regulation limbo for years.



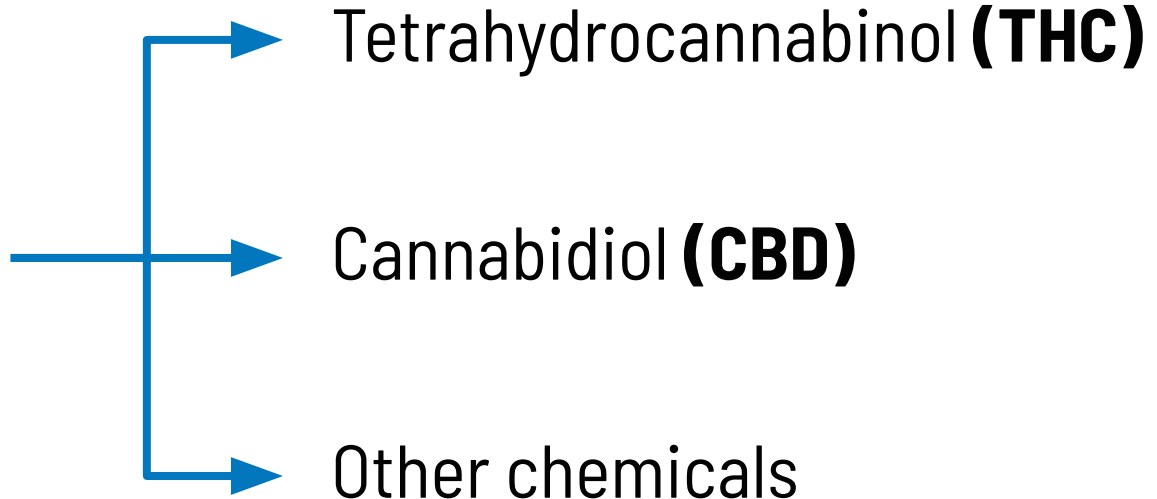
# Cannabis (Marijuana)



# What is Cannabis?



*Cannabis*  
plant



THC and CBD are **cannabinoids** that attach to nerve cells throughout the brain and body.

Cannabinoids affect memory, sleep, appetite, and many other body functions.

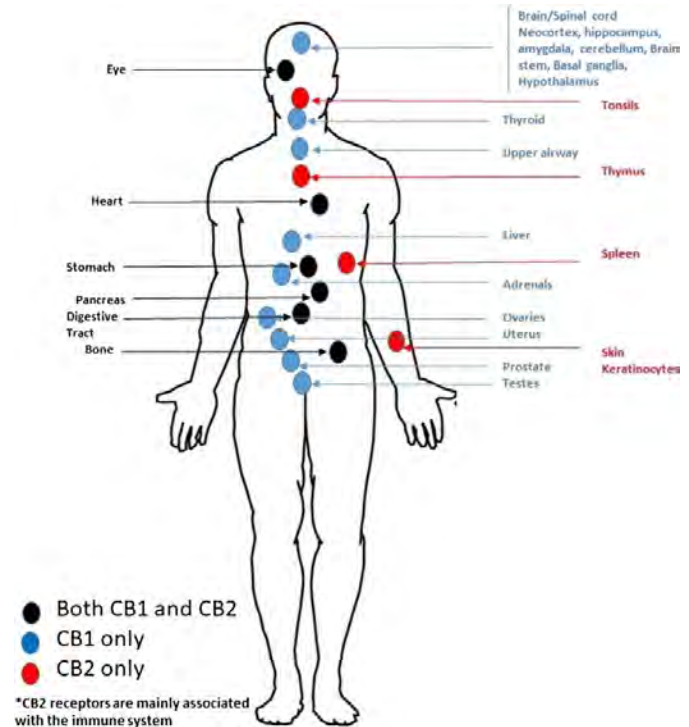


Image: Reddy, Maurya, and Kumar (2019)



# How Cannabis Is Used



**Inhaled**

by smoking or vaping



**Consumed**

in foods and drinks



**Absorbed**

through skin or tongue

# Cannabis "Edibles"



# Cannabis (THC) Vapes



**Pod Vapes**  
Ex: STIIIZY

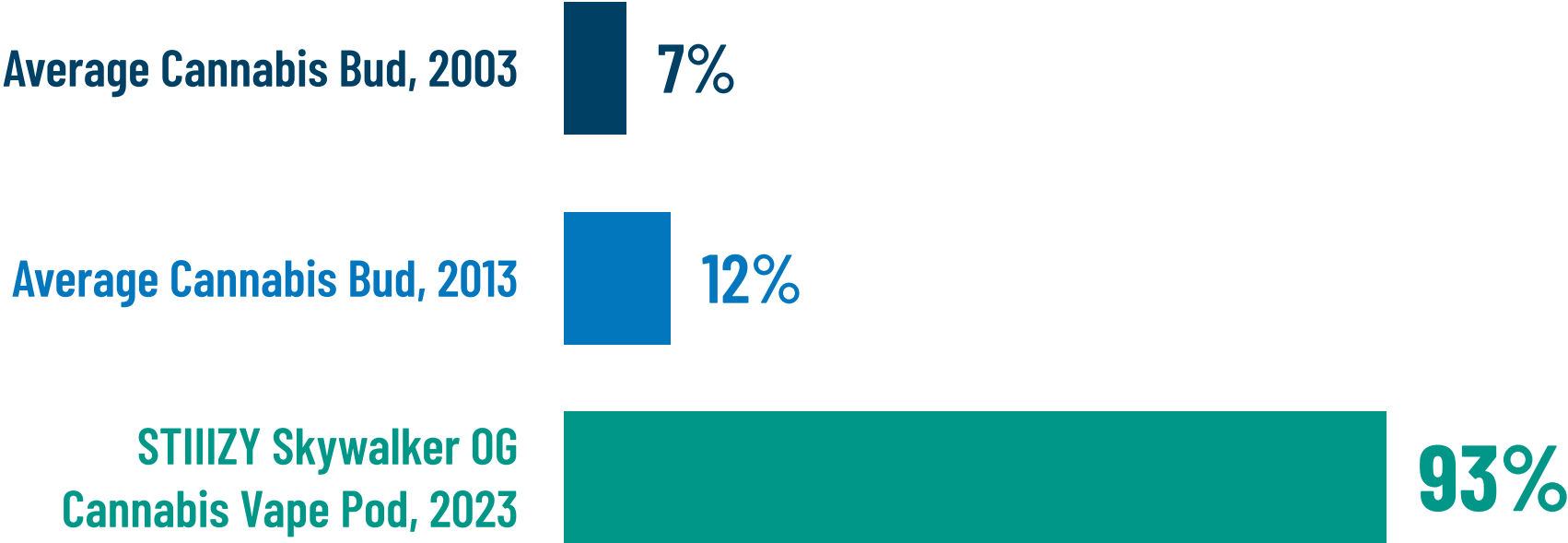


**Vape Pen "Carts"**  
**(Cartridges)**



**"All In One" Disposable**  
Ex: FRYD, Dime, Blinker

# How Much THC Do Cannabis Vapes Contain?



[ElSohly, 2016](#); Encore Labs, 2023

# Key Takeaways: Cannabis



- Cannabis products deliver cannabinoids like THC and CBD, which affect many body functions.
- The delayed effects of edibles often lead to excessive consumption and “greening out.”
- Both cannabis vapes and edibles can deliver extremely high doses of THC.



# Other Products





The following items are not intended to represent the typical vapes being used by young people.

# Barely Regulated Smoke Shop Products



CBD Vapes



Hemp-Derived  
Delta 8, 9, 10, and  
HHC



Amanita Mushroom  
Vapes



# Supplement, Vitamin, and Essential Oil Products



Melatonin



Caffeine, Vitamin B12,  
and Amino Acids



MONQ and FÜM  
(Essential Oils)

# The "Now With Extra E-Waste" Collection



Geek Bar Pulse



Swype 30K



Craftbox V-Play

# Products That Earned Letters From the FDA



Pure Explosions  
Minions Disposable



Super Mario  
Disposable



High Light

# Key Takeaways: Other Products



- Online retailers and smoke shops are the frontiers for new products and unverified health claims.
- Slow, inconsistent regulation is causing a “cat and mouse game.”
- Quality control and safety are not guaranteed.



# Health Risks



# Framing Our Discussions

- Recognize the **context** of students' lives
- Our goal is to enable **youth** to make **healthy decisions** based on **accurate information**
- Try to differentiate **The Industry** from the industry

Nicotine and THC can affect **learning, attention, and memory.**

Both are especially **addictive** in teen brains and when used during times of **stress.**



# Vaping and Teen Mental Health

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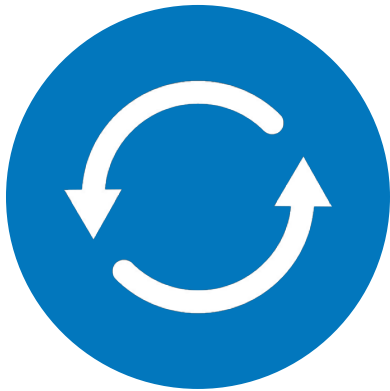
- Most common reason students reported for vaping: to relax or relieve stress and anxiety
- Vaping and cannabis use are linked with depression, suicidality, and other mental health disorders
- These links are complex and multi-directional

[Donaldson, 2022](#); [Becker, 2021](#); [Tokle, 2022](#); [Gorfinkel, 2022](#); [Lechner, 2017](#); [Javed, 2022](#); [Baiden, 2022](#); [Kim, 2021](#); [Riehm, 2019](#); [Gobbi, 2019](#); [White, 2022](#)



# High THC Cannabis Use May Increase the Risk Of:

**Addiction**



**Psychosis**



**Vomiting**



**Flavor chemicals**  
**Warning! Can**  
**be harmful to**  
**your lungs!**

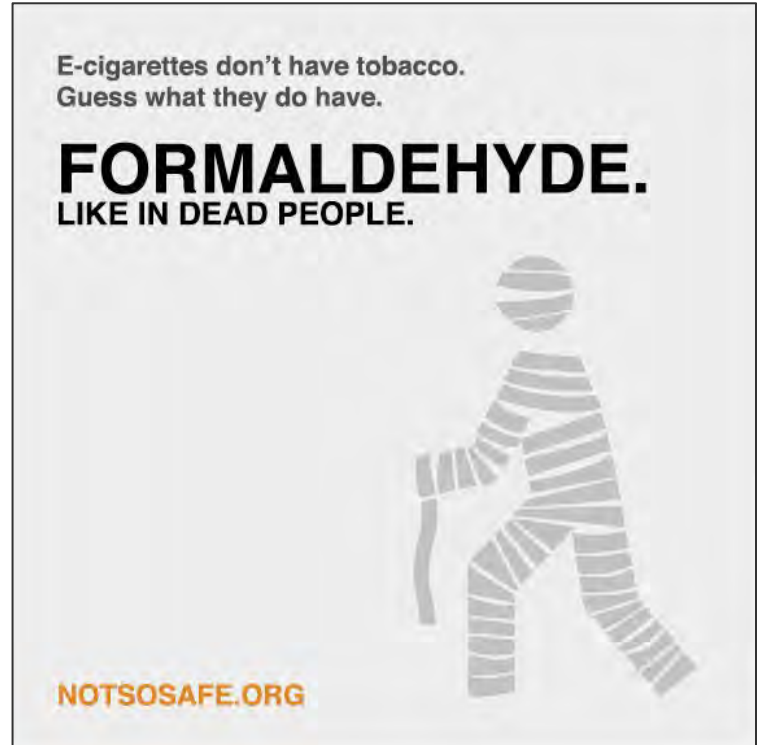


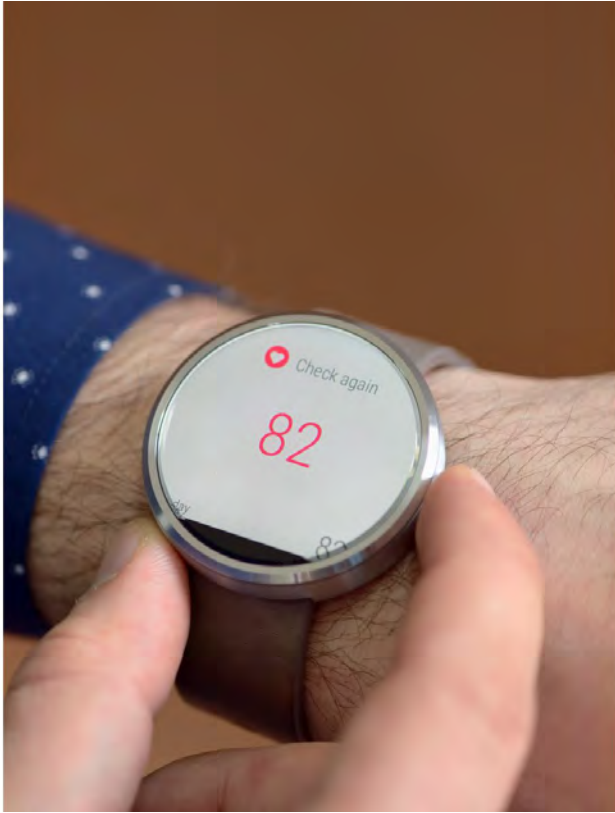
Vape aerosol is a mixture of tiny liquid droplets and solid particles.



PG/VG and artificial flavors  
can form toxins when  
**heated and inhaled.**

The **coil** can also leach  
metals into the e-liquid.





Vaping and oral nicotine use **raise heart rate and blood pressure** through the “fight or flight” sympathetic nervous system.

Research has linked vaping with **increased risk of cardiovascular disease**, independent of smoking.









# Key Takeaways: Health Risks



- Nicotine and THC are more addictive to the teen brain.
- Both can affect learning, memory, and attention, and can worsen depression.
- Vaping generates harmful chemicals and metals.
- Vaping and nicotine affect the heart and blood vessels.
- Flavored vapes are illicit goods and not FDA-tested.

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# Helpful Resources

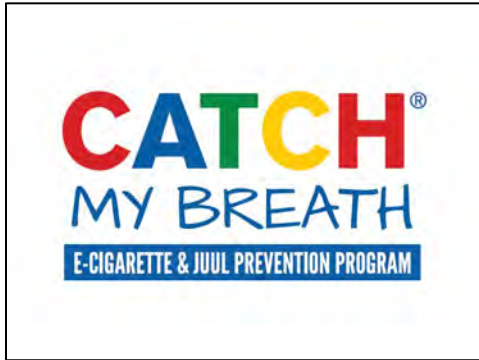
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Prevention

Intervention

Cessation

# Prevention Curriculum



[CATCH My Breath](#)



[You and Me,  
Together Vape-Free](#)



[Smart Talk](#)

# Parent and Caregiver Resources



[Let's Talk Cannabis Toolkit](#)

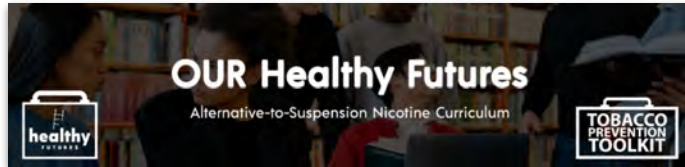


[CATCH My Breath Toolkit](#)

# Three Reasons to Consider Substance Use Interventions

1. **Suspensions affect attendance and achievement**, and a significant number of them are related to substance use.
2. Suspension temporarily relocates substance use, but **it does not address root causes and may worsen the issue.**
3. Unlike other suspendable behaviors, **substance use harms the person doing it** and does not always have a direct victim.

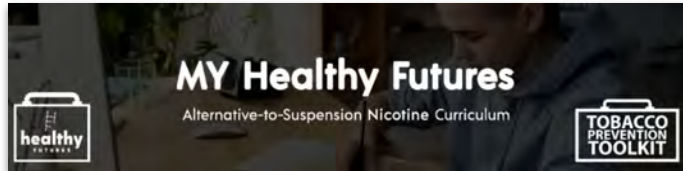
# Intervention: Facilitated by School Staff



- Utilize motivational interviewing and stages of change theory
- Provide education on vaping and cannabis risks
- Individual or small group formats
- Training available at no cost

# Intervention: Self-Paced Online Programs

Vaping:  
Know the truth



 American  
Lung Association®  
INDEPTH. Online

- Provide education on vaping and cannabis risks along with some skill building components
- Can complement existing counseling sessions
- Completed individually and tracked through dashboards



# UC SAN DIEGO

# YVAPE

## Telehealth Nicotine/Cannabis Vaping Alternative to Suspension

[YVAPE Website](#)

[YVAPE Flyer](#)

[YVAPE Brochure](#)

YVAPE can help! ~~FREE~~ **FREE** alternative to suspension program!

Helping schools hold students accountable while supporting behavior change.

**YVAPE** Youth Vaping Alternative Program Education

## HOW DOES YVAPE WORK?

### WHO WE ARE

YVAPE is a **FREE** educational intervention program with phone and video coaching support for students who have been found with or under the influence of nicotine and/or marijuana at school.

YVAPE is available to...

- » California public schools
- » Students 12 years and older
- » Offered in English and Spanish



### REFER YOUR STUDENTS

Scan the QR CODE to access the secure web referral form or visit [yvape.org](http://yvape.org)

### CONTACT US

Web: [www.yvape.org](http://www.yvape.org)  
Phone: 858.300.1023  
Email: [yvape-support@health.ucsd.edu](mailto:yvape-support@health.ucsd.edu)



### ENROLLMENT

- » The student is found with or under the influence of nicotine and/or marijuana at school.
- » The student and parent/guardian (of students 12-17 years old) provide the school with verbal consent for participation.
- » The school enrolls the student in YVAPE via [yvape.org](http://yvape.org).



### PROGRAM

- » **Initial Call:** The first session (15-20 mins) covers nicotine and marijuana use.
- » **Videos and Discussion:** The student will watch at least three videos and will discuss questions (15-30 mins) with their parent/guardian, school staff, or YVAPE Coach.
- » **Follow-up Call:** The follow-up session (10-15 mins) covers changes in their substance use behavior, the videos, and discussion questions.
- » **Optional Check-in Call:** Extra coaching session to provide support to the student at their request.



### BENEFITS

- » Easy online enrollment system
- » Flexible, can be utilized during or outside of school hours
- » Students' chances of quitting nicotine and marijuana improve
- » Ability to check student progress

# UC SAN DIEGO

# Kick It CA

## Tobacco Cessation Services

[Kick It CA Website](#)

[Student Referral Form](#)

[Kick It CA Flyer](#)

**KICK/IT**  
California

Personal **FREE**  
Quit Services

## KICK IT CALIFORNIA

LOGO WEBSITE PHONE NUMBERS

**KICK/IT** California **KICKITCA.ORG**

ENGLISH **1-800-300-8086**  
SPANISH **1-800-600-8191**

QUIT SMOKING ■ QUIT VAPING ■ QUIT SMOKELESS TOBACCO

-  **KickItCa.org**  
Free, customized one-on-one coaching, grounded in science and proven to help you quit.
-  **Automated Text Program**  
We'll text you helpful tips at critical points during your quit journey, and answer any questions you have within one business day.  
Text "Quit Smoking" or "Quit Vaping" to 66819  
Texto "Dejar de Fumar" o "No Vapear" al 66819
-  **Speak with a Quit Coach**  
Monday-Friday 7 am to 9 pm  
Saturday 9 am to 5 pm  
**1-800-300-8086** (English)  
**1-800-600-8191** (Spanish)
-  **Mobile Apps**  
Download from the App Store & Play Store  
-  **Chat with a Quit Coach**  
[kickitca.org/chat](http://kickitca.org/chat)
-  **Amazon Alexa**  
Say "Alexa, open Stop Smoking Coach" or "open Stop Vaping Coach"
-  **Quit Smoking Vids**  
Tips for planning to quit, staying motivated, and handling cravings.  
 [youtube.com/kickitca](https://youtube.com/kickitca)

Some clients may be eligible to receive free nicotine patches. Chat with a Quit Coach to see if you qualify.

**WE'VE HELPED MORE THAN 1 MILLION CALIFORNIANS!**

Kick It California (formerly California Smokers' Helpline) provides free, non-judgmental quit support in six languages. Coaching is based on clinical research conducted by UC San Diego Moores Cancer Center, and funded by the California Department of Public Health & First 5 California.



# Youth-Friendly Cessation Resources



**WANT TO QUIT VAPING?**

**smokefree**teen

**YOUR PLAN. YOUR WAY.**

Scan here to make a free, anonymous, and private plan for quitting. Learn how to prepare for tough cravings.

Stay on track and in control.



**THIS IS QUITTING**

**FREE. ANONYMOUS. 24/7.**

Text **DITCHVAPE** to **88709** or scan here to get free quitting help through texts from experts and others just like you.

Get inspired and motivated.



**TALK TO A TRUSTED ADULT**

Surrounding yourself with positive support can make it easier to quit. Getting help from your family, doctor, or counselor can increase your chances of success.

Cessation Mini-Poster



## Quitting Tips for Nicotine & Cannabis

Take back control. Quitting nicotine or cannabis is no easy feat. Below are some tips and tricks that you can utilize to help with quitting either nicotine or cannabis. You got this!



Think about your reasons for quitting, which can be very motivating.



Plan your quit date within 1-3 weeks.



Prepare your environment by throwing away your tobacco and cannabis products, lighters, and related supplies.



Consider different ways of quitting other than "cold turkey" such as behavioral and medical support (e.g., NRTs and behavioral therapy).



Withdrawal symptoms are common and temporary. Plan for how to cope with them.



Identify strategies to deal with your triggers.



Explore healthy activities.



Get support. You are not alone.



Practice stress-reducing techniques.



It might take a few tries. You got this!

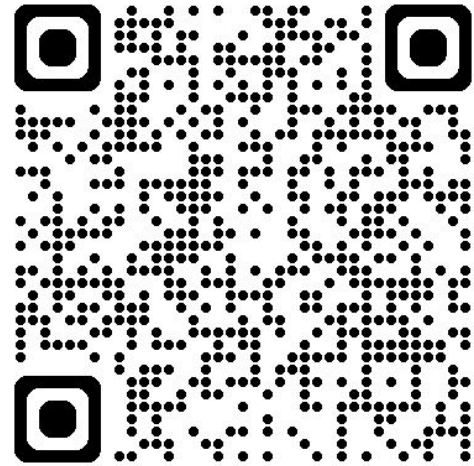


For more information, infographics, and quitting resources, visit: [resources.stanfordreachlab.com](https://resources.stanfordreachlab.com)

Quitting Tips

# Thank You!

Stephan Lambert  
Prevention Coordinator  
[slambert@ocde.us](mailto:slambert@ocde.us)



**[Resources](#)**

**[www.tupeca.org](http://www.tupeca.org)**

# UPCOMING CSHA WEBINARS

## **My Voice Saves Lives: Engaging Young People as TUPE Peer Educators**

- Wednesday, October 9th 2024, 1:00 - 2:00PM Pacific
- [Registration Link](#)

## **The Triangulum of Cannabis, Tobacco, and E-cigarette Use: Its Effects on Physical Health, Addiction, and Mental Health, and How You Can Best Help**

- Wednesday, November 6th 2024, 10:00 - 11:00AM Pacific
  - [Registration Link](#)
- 

# STAY CONNECTED



[schoolhealthcenters.org](https://schoolhealthcenters.org)



[info@schoolhealthcenters.org](mailto:info@schoolhealthcenters.org)



[sbh4ca](https://twitter.com/sbh4ca)



[sbh4ca](https://www.instagram.com/sbh4ca)

Gracias

謝謝

Thank you

Cảm ơn

Salamat

Stephan Lambert  
[SLambert@ocde.us](mailto:SLambert@ocde.us)

Tracy Nguyen  
[tnguyen@schoolhealthcenters.org](mailto:tnguyen@schoolhealthcenters.org)