

ELECTRONIC NICOTINE DELIVERY SYSTEMS

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GOALS AND OBJECTIVES

- General Information & Trends
- ENDS Health Risks
- Secondhand Aerosol
- Cessation
- Youth Prevention Strategies



Image: FDA



What are your concerns and issues?

How to help a student that is addicted?

What are the health risks?

How does vaping effect mental health?

How can we reduce vaping rates at school?

YOUTH FAVORITES

Current generation of e-cigarettes

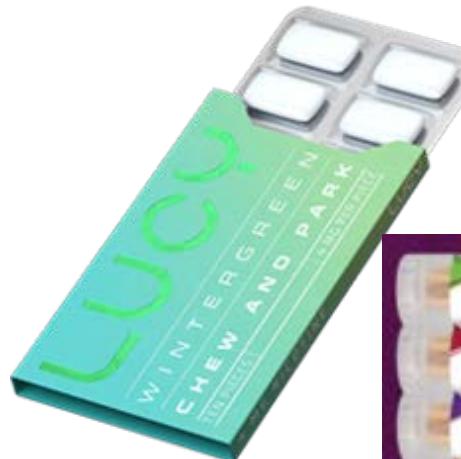


Disposables



Image: Truth

OTHER NICOTINE AND NON-NICOTINE PRODUCTS



"vegan"



"non-GMO"



"organic"



These products feel harmless, but that is far from the truth!

HOW MUCH NICOTINE DOES 1 JUUL POD CONTAIN?

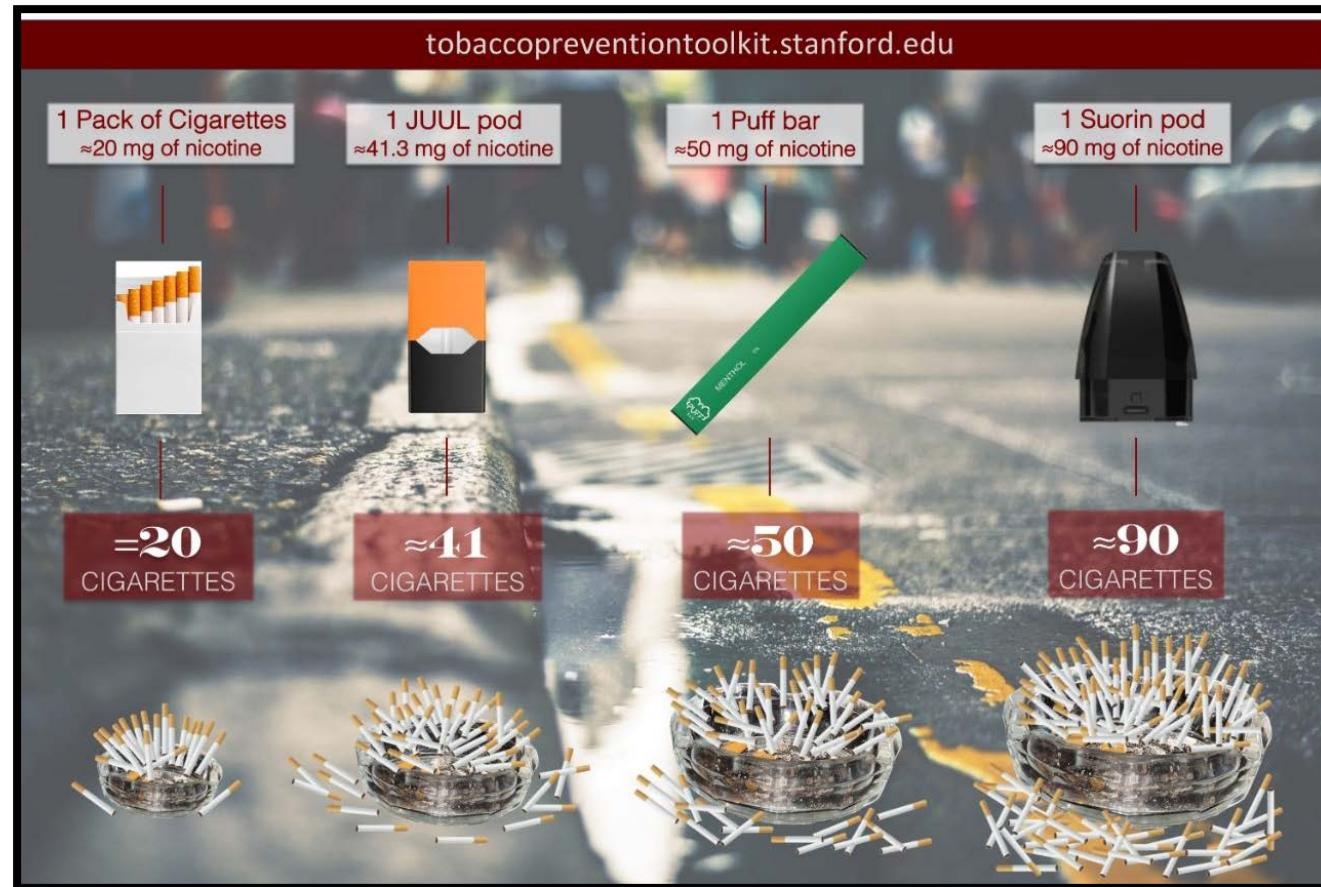
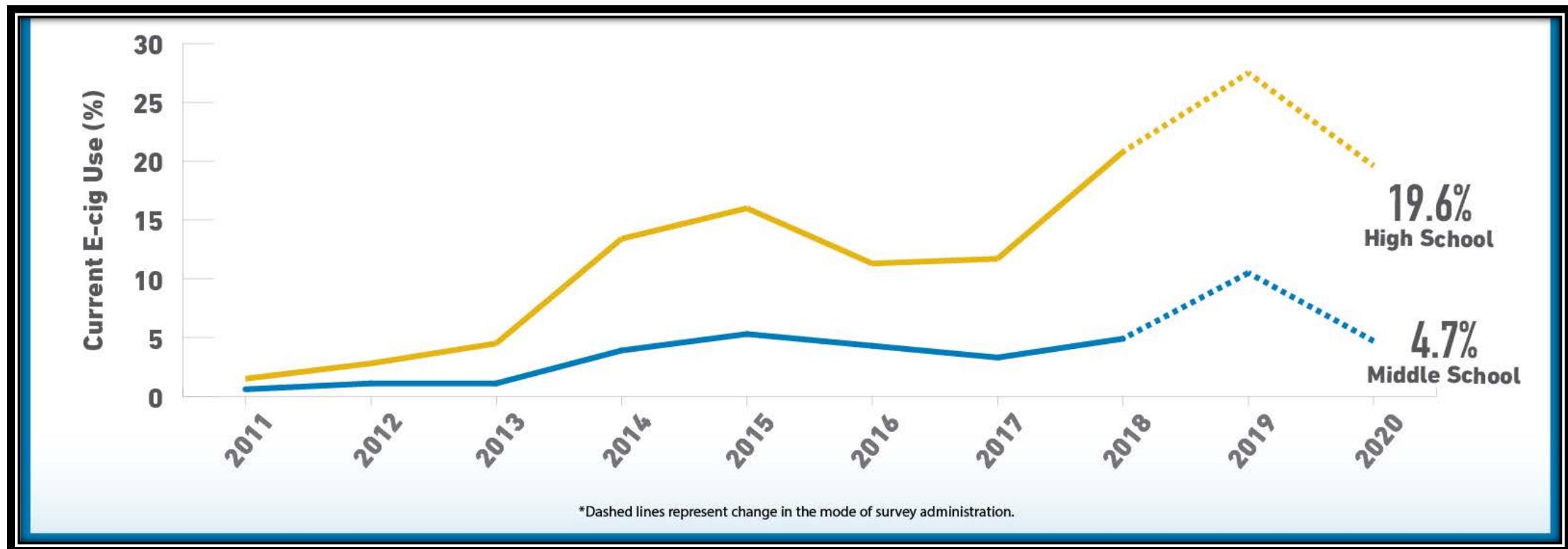


Image:
Stanford
Medicine

Average nicotine concentration DOUBLED from 2013-2018!
Most ENDS are designed for addiction, not cessation.

2020 NATIONAL YOUTH TOBACCO SURVEY, UNITED STATES, 2011–2020



Current e-cigarette use: “In past 30 days, which of the following products have you used on at least one day?”

“High rates of frequent & daily e-cig use suggest strong dependence on nicotine” FDA

CURRENT TOBACCO PRODUCT USE AMONG HIGH SCHOOL STUDENTS

23.6%

19.6%

5.0%

4.6%

3.1%

2.7%

1.4%

0.7%

any tobacco product

e-cigarettes

cigars

cigarettes

smokeless tobacco

hookah heated tobacco products

pipe tobacco

Learn more at: bit.ly/6950a1

Source: National Youth Tobacco Survey, 2020

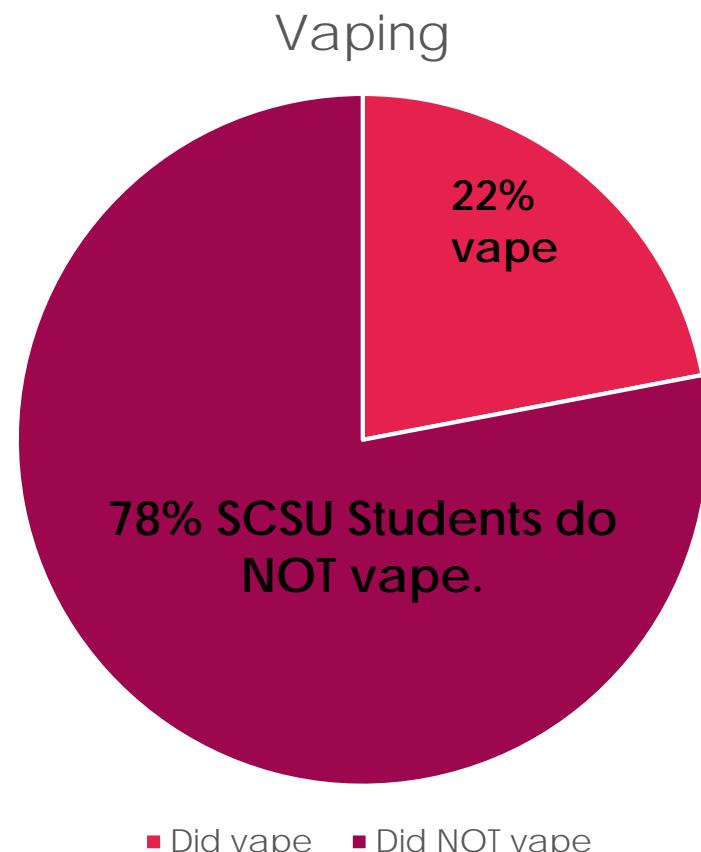


National Youth Tobacco Survey 2020

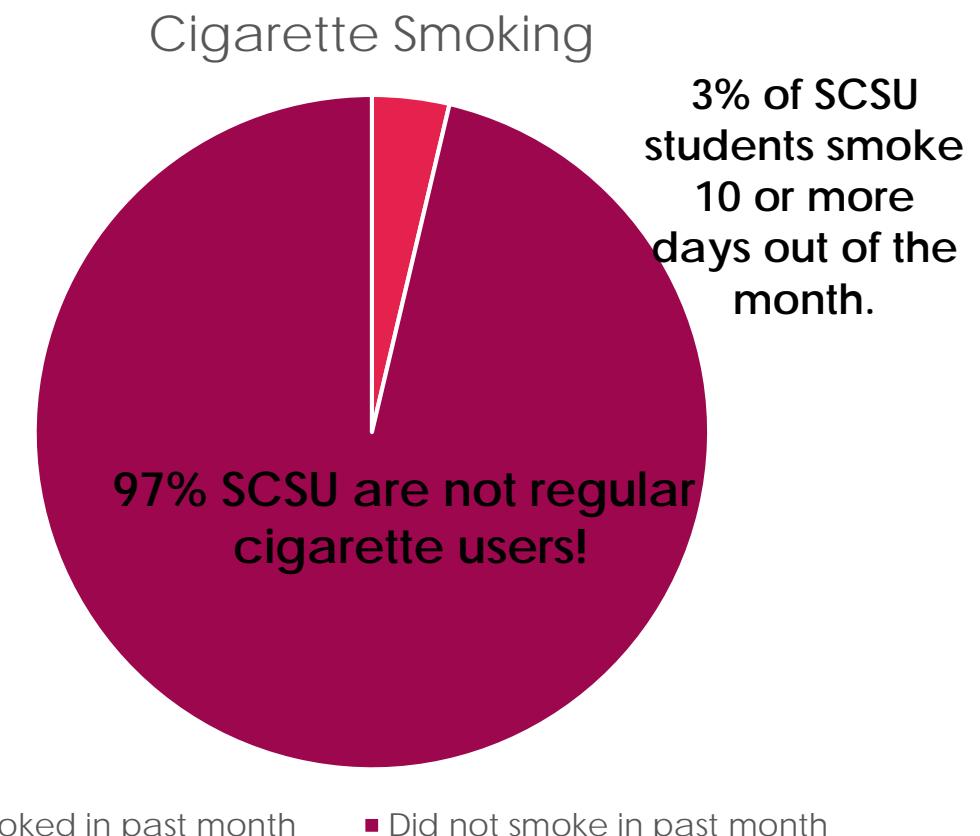
- Youth use declined by almost 10%
 - T21, EVALI, public health efforts, 2020 flavor ban
- Frequency and addiction remain high
 - 40% of users vape 20 or more days a month
- Rates of cigarette use remain steady
- Youth prefer flavors
 - 85% use a flavor like fruit followed by candy, mint and menthol
- Shift to disposables

What changes have you noticed in your district?

SOCIAL NORM MESSAGING



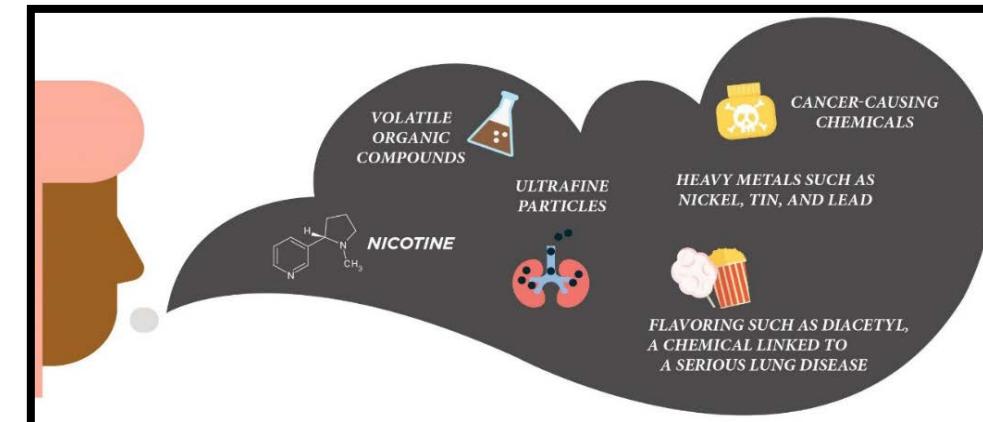
Most SCSU students do not vape or smoke!



HEALTH RISKS

2018, National Academies of Science, Engineering & Medicine consensus study report reviewed over 800 different studies.

- Two primary ingredients, PG & VG are toxic to cells
- The more ingredients in an e-liquid, the greater the toxicity.
- E-cigarettes produce a number of dangerous chemicals including acetaldehyde, acrolein, and formaldehyde. These aldehydes can cause lung disease, as well as cardiovascular (heart) disease.
- E-cigarettes also contain acrolein, a herbicide primarily used to kill weeds.
 - It can cause acute lung injury, COPD and may cause asthma and lung cancer
- Surgeon General concluded that secondhand aerosols contains, "nicotine; ultrafine particles; flavorings such as diacetyl, a chemical linked to serious lung disease; volatile organic compounds such as benzene, which is found in car exhaust; and heavy metals, such as nickel, tin, and lead."
- Oral Health: increases oral bacteria and can potentially lead to gum disease and oral cancers
- EVALI: E-cigarette and vaping induced lung injury. 2019: 2,807 cases & 68 confirmed deaths



"Aerosol particles penetrate deep into respiratory system, posing risk for disease not usually seen in smokers." FDA Commissioner, Amy Abernethy, MD, Ph.D

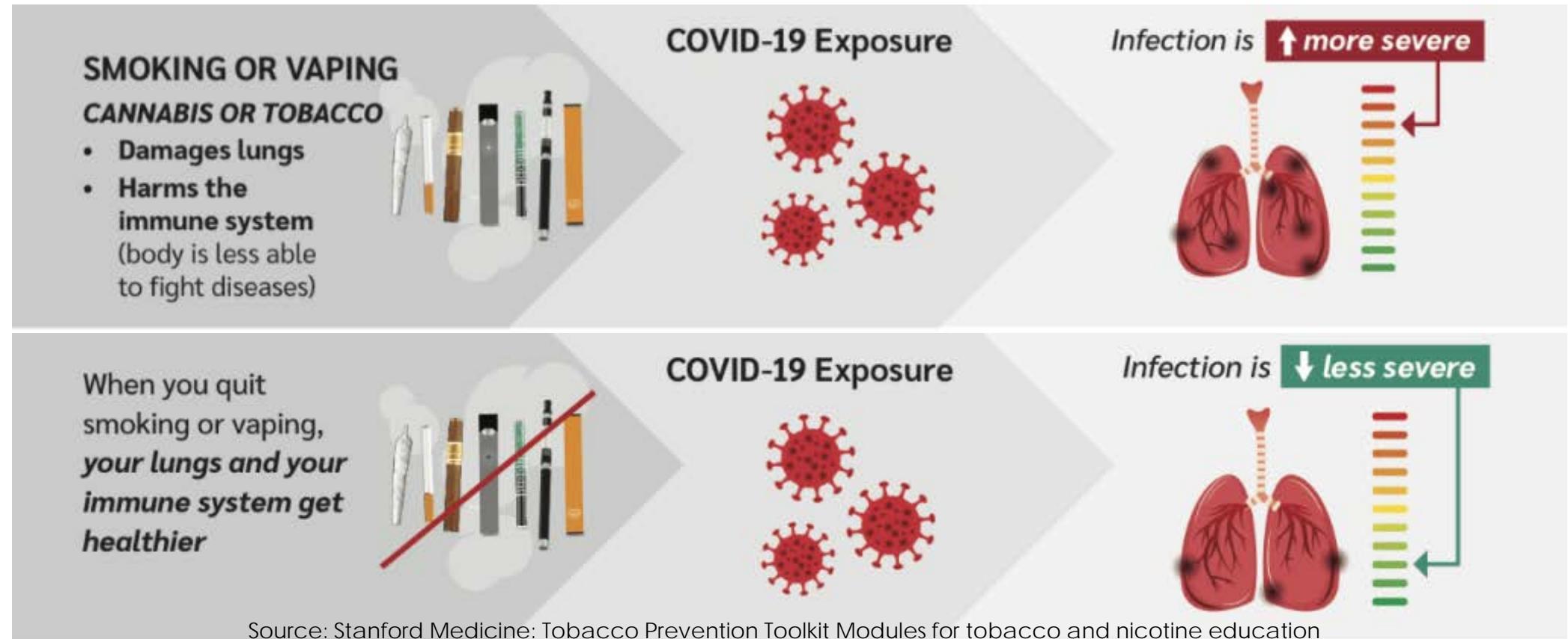
HIGH LEVELS OF NICOTINE & THE DEVELOPING BRAIN

- Nicotine shapes how the brain develops & changes can be permanent
 - Impairments in attention, learning capacity & memory
 - Increased risk mood disorders like depression and anxiety
- Nicotine primes brain for addiction to other drugs like alcohol, marijuana and cocaine
 - Nicotine reprograms how certain genes, like the addiction gene, is expressed and enhances the rewarding feeling of other drugs. Makes it more likely for other addictions to occur later in life.
 - The younger one starts, more likely to get addicted & more likely to be addicted to other substances
 - As addictive as heroine and cocaine.
- Seizures
- Nicotine toxicity or “nic sick”



Image: FDA

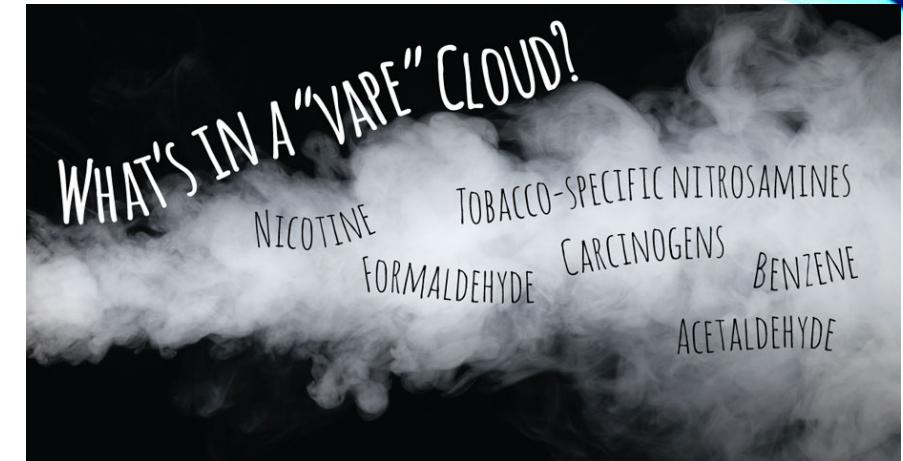
VAPING AND COVID-19



Youth who vape are 5x more likely to become infected with COVID-19

Source: Journal of Adolescent Health

SECONDHAND AEROSOL ("SMOKE")



- **Many of our youth have been exposed to secondhand aerosol**
 - Studies have found formaldehyde, benzene and other cancer-causing chemicals
 - Other studies: formaldehyde, heavy metals, nicotine and other toxins
 - **Avoid people that are vaping.** especially indoors
 - Opening a window or going into another room is not enough to protect you
 - **Vape particles stick to surfaces** like car seats and furniture
 - These particles may be absorbed through the skin
- Discuss the risks with youth and advise them to avoid it just like SHS
- Why do you think we see more indoor vaping vs smoking? How can we change that?

CT State Law: Vaping is Prohibited in all Indoor Places where Smoking is banned! Could be subjected to fines!

YOUTH VAPING BEHAVIOR CHANGES DURING COVID-19

Image: Rescue Agency

- Study by Rescue Agency: 130 youth participants
- Changes in behavior
 - Experimental users have reduced use
 - Regular users have increased their use
- Changes in knowledge and attitudes
 - Increased awareness of chemicals and health risks
 - "I think vaping can affect breathing, if you get the coronavirus, that can have some problems."
 - Reduced athletic performance is most experienced side effect
 - More are becoming aware of the addictive properties
- Messages that resonate with youth
 - Lung health, consequences they have already experienced like shortness of breath and athletic performance, talk about lesser known chemicals and ingredients, & overall health



What changes have you noticed at your school?

WHO DO THEY TARGET?



Discuss how and why companies market to youth.

"synthetic nicotine"



YOUTH AND YOUNG ADULT MOTIVATORS TO QUIT

Image: Truth

1. Health Concerns (51%)

- "I can't breathe." "I want my lungs back." "I don't want to mess up my body when I'm older." "I don't want to die." "I want to be able to run and do cardio workouts without not being able to breath." "I can't stand the anxiousness."

2. Cost (22%)

- One puff day a day is \$84, \$168/month and \$2,016/year
- "I don't have enough money to feed my addiction." "Waste of money."

3. Desire to Escape Addiction (16%)

- "I've been addicted to nicotine for 2 years...and I want to be done." "It's really addictive and I'm trapped." "I'm so young now...I don't want to be addicted to something my whole life."

Youth want to quit! Offer the resources!



Data from Truth Initiative's vaping cessation texting program in 2019

CESSATION

- Refer to tobacco treatment specialist or PCP
- Safe & effective nicotine cessation methods
 - MI, CBT, Pharmacotherapy (PCP)
- Web based programs:
 - FDA's Smokefree Teen:
<https://teen.smokefree.gov/quit-vaping>
- Text programs:
 - Truth Initiative- DITCHVAPE to 88709
 - My Life, My Quit: coming soon to CT
- Live phone CT quitline: 1-800-QUIT-NOW
- Smartphone app: QuitSTART
- For parents that want to help their youth/young adult quit: Text Quit to 202-899-7550

Image: Mass DPH

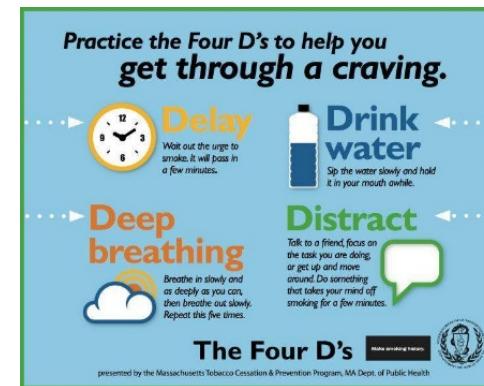


Image: Truth

ADDITIONAL RESOURCES FOR QUITTING VAPING

- Become a trained tobacco treatment specialist
 - Free 3 day training: June 20, 23, 24
 - Email for application
 - <https://www.umassmed.edu/tobacco/training/>
- Group cessation curriculum and sample vaping quit kits: email Vicky at adamsv2@southernct.edu
- What resources does your school offer?



Request a sample vape quit kit to use with your students

Now is the Time: Quit Smoking & Vaping!



The coronavirus (COVID-19) attacks the lungs, and behaviors that weaken the lungs put individuals at greater risk. There has never been a better time to quit vaping or smoking. SCSU can help with free cessation services.

Set up a virtual, phone or in-person apt.
Pick up a FREE Quit Kit at the Wellness Center, Health Services or mailed directly to you
Confidential

Contact Vicky Adams to learn more:
adamsv2@southernct.edu

Made possible by a grant from the
CT Department of Public Health & CT Tobacco & Health Trust Fund



YOUTH PREVENTION STRATEGIES

- Prevention and treatment vs. discipline
 - Frequent and consistent messaging starting at an early age
 - Alternative to suspension programs
 - Incorporate various school departments, peer educators, & parents
- Evidence based materials: Stanford Medical School's tobacco prevention toolkit, ALA's Indepth, Catch my Breathe & Truth's: Vaping, Know the Truth
 - Alternative to suspension curriculum, lesson plans, games and other activities
- Communicating with youth
 - Debunk myths and accurately discuss risks
 - Facts vs. exaggeration, avoid "scare tactics"
 - Personal experiences resonate with youth
 - Discussions vs. lecture
 - Develop refusal skills
 - Become allies with youth against big tobacco
 - Discuss deceptive marketing campaigns that target youth
 - Environmental scans in your community

Image: JUUL 2015 Vaporized Campaign



Image: San Francisco Tobacco Free Project



HOW TO TALK TO YOUR CHILD ABOUT VAPING

- Educate parents
 - CDC, Surgeon General.gov, <https://teen.smokefree.gov/>
- Remind parents to be patient and ready to listen
 - Conversation vs lectures
 - Takes place over time
- Set a positive example by being tobacco free 1-800-Quit-Now
- Discuss the risks using facts
 - “Using nicotine at your age may make it harder for you to concentrate & learn.”
- Discuss why people use tobacco and encourage healthy alternatives
- Share resources and encourage the research
- Discuss cessation resources

Tips for talking with your kids about VAPING

Know the facts. Learn about e-cigarettes and young people before you start the conversation with your child.

- E-cigarettes are known by many different names. They are sometimes called e-cigs, e-hookahs, mods, vape pens, vapes, tank systems, and electronic nicotine delivery systems.
- Most vaping devices contain and deliver nicotine. Nicotine can harm a teenager's developing brain and lead to addiction.
- Simply talking with your teen about these products can help protect them.

Be patient and ready to listen. Your goal is to have a conversation, not to deliver a lecture. So avoid criticism and encourage an open dialogue.

There is no "perfect talk." Consider your talks with your child about vaping as a learning opportunity for both of you, and perhaps just the beginning of an ongoing dialogue. You may have some facts about vaping at hand, but concede that you don't know all the answers. It will go a long way to keep your kids from going on the defensive.

Ask what your child thinks. Show some genuine curiosity. Ask your child, "What's your take on vaping?" or "Do you know kids who use e-cigarettes?"

Be open and honest. Be truthful about what you know about the dangers of vaping, and what you don't. You can honestly say, though, "Vaping isn't harmless. I hope you can steer clear of it."

You can't always control everything your children do when they're not with you. Talking with your kids about vaping will let them know that you're concerned about their health.

Excerpted from *Talk With Your Teen About E-cigarettes: A Tip Sheet for Parents From E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General* and other content taken from *How to Talk to Your Kids about Vaping*, New York Times, February 2, 2018.

GET OUTRAGED!
Get the facts at GetOutraged.org

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5 REASONS WHY NOT TO VAPE



To Prevent Serious Lung Illness

An ongoing outbreak of severe lung disease is causing serious illness in Connecticut and most of the US. Patients are being put on ventilators to help them breathe. The common link in all cases is vaping and e-cigarette use. In some states, deaths have occurred.



To Prevent Harm to your Body

E-cigarette vapor inhaled deep into your lungs can contain cancer-causing chemicals, heavy metals, and ultrafine particles that can harm not only your lungs but the rest of your body.



To Prevent Brain Changes

Nicotine and other drugs (like THC) can cause structural changes to your brain. Prolonged nicotine use results in the need for billions of nicotine receptors in your brain to be continuously activated, otherwise withdrawal symptoms occur, such as irritability, anxiety, depressed mood and difficulty sleeping.



To Keep You from Using Other Drugs

Nicotine and alcohol can prime your brain to want different types of substances which have their own set of health risks, such as opioids, cocaine, and meth.



To Be a Good Friend

One of the primary reasons young adults start using vapes and e-cigarettes is because their friends use them. Be a good friend and do not share your vapes or use them around your friends.

For more information on the dangers of e-cigarette use, visit this site!

Learn more at https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html



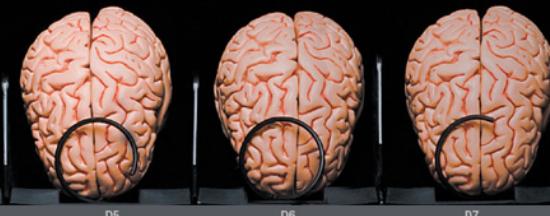
A NICOTINE-FREE VAPE IS NOT A WORRY-FREE VAPE.



Vapes can expose you to toxic chemicals like formaldehyde and acrolein, even if they don't have nicotine.

U.S. FOOD & DRUG ADMINISTRATION

It's not like you can buy a new brain.



The human brain is the last organ to fully develop, at around age 25. Nicotine in e-cigarettes can harm brain development and lead to addiction in youth and young adults. Let's protect our kids.

Learn how at www.CDC.gov/e-cigarettes

VAPING. Don't Get Taken In.

Ads claim e-cigarettes emit only harmless water vapor. NOT true!



CENTER FOR TOBACCO PRODUCTS

View Text Alternative

VAPES AND CIGARETTES

Different products. Same dangers.



GET THE FACTS



mass.gov/vaping @GetTheVapeFacts

TAKE-A-WAYS

Vaping/E-cigarettes/ENDS....

- Contain and emit numerous potentially toxic substances, amount varies based on device
- Most contain high levels of nicotine, which can harm the developing brain
- Produce secondhand aerosol that is not safe
- There are free, youth specific, vaping cessation programs
 - <https://teen.smokefree.gov/quit-vaping>
 - Truth Initiative- DITCHVAPE to 88709
- Youth should be taught prevention consistently throughout their education and how to quit.
- **What did you find interesting?**

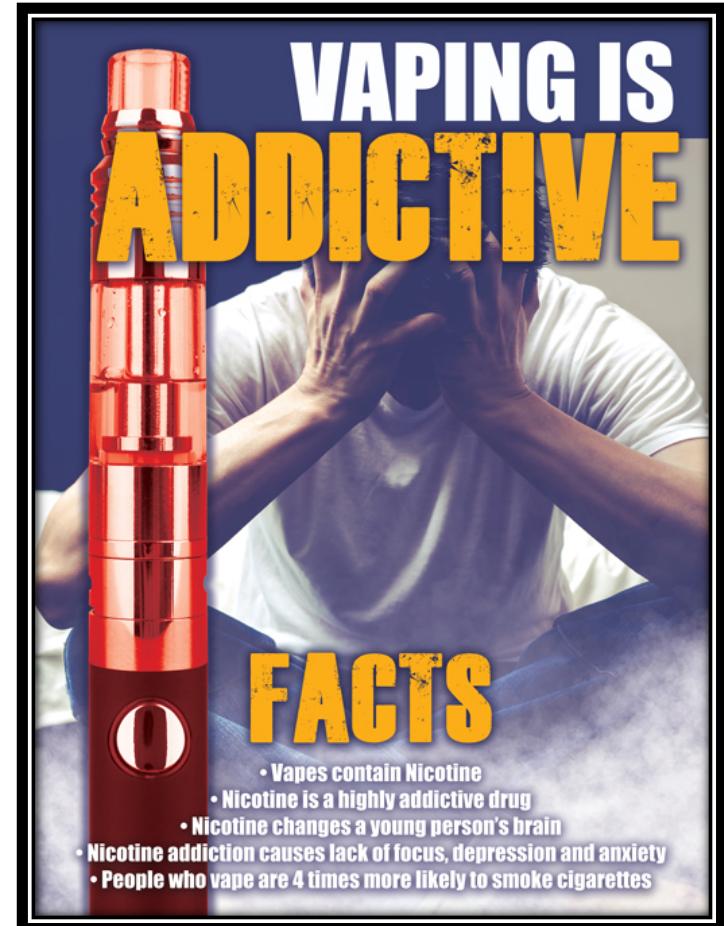


Image: CT Clearinghouse Poster

THANK YOU!

- Questions?
- Free Technical Assistance Available:
 - Presentations
 - Vaping prevention & cessation assistance and materials
 - Quit kits, youth cessation curriculum, prevention posters
 - Join the Youth MATCH Prevention Coalition Workgroup
 - Tobacco Treatment Specialist Training
 - June 20, 23, 24, 2022
 - Peer to peer vaping prevention sessions taught by SCSU students delivered in your district
 - Contact info: Victoria Adams adamsv2@southernct.edu

Image: FDA

