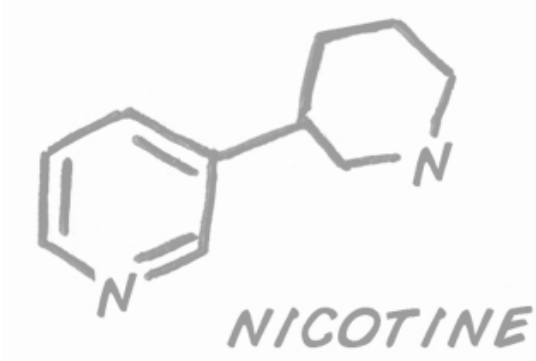




THE TRUTH ABOUT: VAPING



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October 3, 2018

Caron Quick Facts



- National leader in behavioral healthcare & addiction treatment
- Over 60 year history
- Student Assistance Program – 28 year history
- Full spectrum of treatment programs to meet the needs of everyone



Objectives



- Vaping 101
- Current National Stats
- Marijuana and Nicotine Overview
- Teen Brain Development
- What Can You Do?



What's the Difference?



Drugs Serve Many Functions



- Relaxation & pleasure
- Socialization
- Avoidance of emotional pain
- A way to forget about problems
- Satisfy curiosity
- Avoid alienation
- Find excitement
- Achieve an advantage
- Feel like part of the crowd
- Go to sleep, or wake up
- Cope with failure
- Relieve boredom
- Rebel



Why???



THEY WORK!



Energy



Oh Wow!



Soothed

Risk vs. Protective Factors



Risk

Early age of onset

Perception of parental approval

Friends use

Family unhealthy role models

Low perception of harm

Easy access from adults

Poor school connection

Protective

Delayed onset

Understanding parental disapproval

Friends don't use

Family role models healthy use

Realistic understanding of harm

Little or no access

Strong connection to school

**Monitoring the Future
(2017 National Study)
Past Year Usage**

	8th %	10th %	12th %
Alcohol	18.2	37.7	55.7
Been Drunk	6.4	20.4	35.6
Marijuana	10.1	25.5	37.1
Cigarettes (past 30 days)	1.9	5	9.7
Smokeless Tobacco (past 30 days)	1.7	3.8	4.9
Vaping	13.3	23.9	27.8
Inhalants	4.7	2.3	1.5
Hallucinogens	1.1	2.8	4.4
MDMA	0.9	1.7	2.6
Cocaine	0.8	1.4	2.7
Heroin	0.3	0.2	0.4

MTF 2017



Past Month Use	8 th Graders	10 th Graders	12 th Graders
Any vaping	6.6%	13.1%	16.6%
Vaping Nicotine	3.5%	8.2%	11.0%
Vaping Marijuana	1.6%	4.3%	4.9%
Vaping “Just Favoring”	5.3%	9.2%	9.7%

More than 2 million MS and HS students were current users of e-cigarettes in 2017.

Slang Terms



Dripping
Throat Hit
Vapor
PV
Ciga-like
Tank Systems
Atomizer
Drip Tips
Cloud
JUULing
Cloud Chasers
Draw

E-Juice
APV
E-Cig
Analog
Cartridge
Smoke Juice
Dry Puff
E-Hookah
Hookah Pens
Hookah Sticks
Mods
ENDS



The New Look of Nicotine Addiction



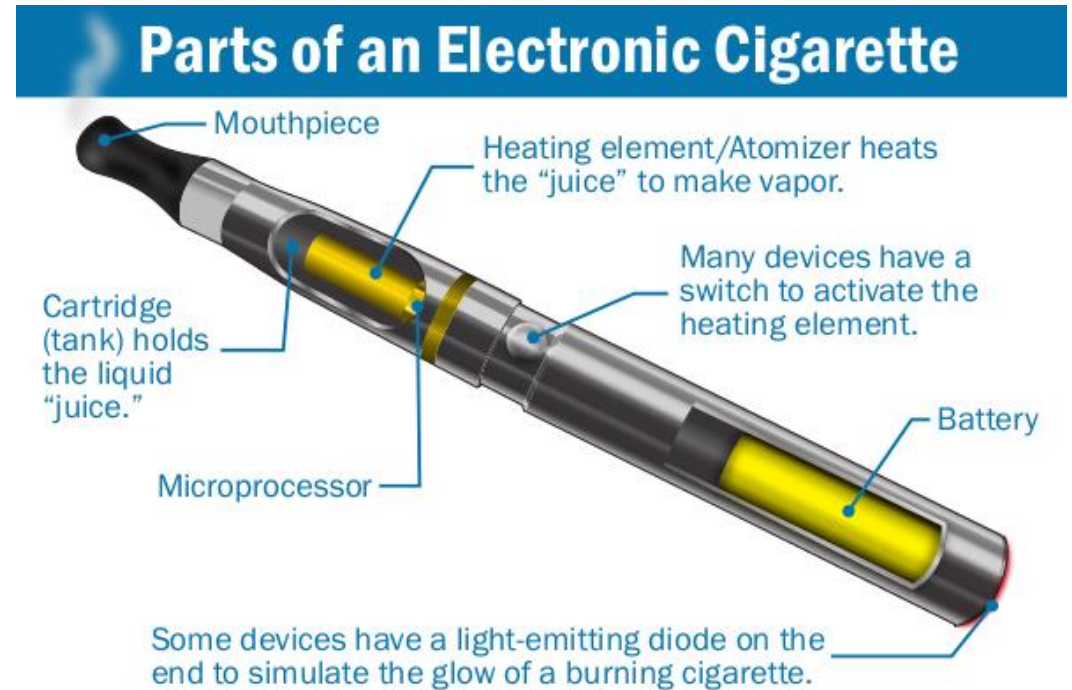
Vaping is the act of inhaling and exhaling the aerosol, often referred to as “vapor”, produced by an e-cigarette or similar device



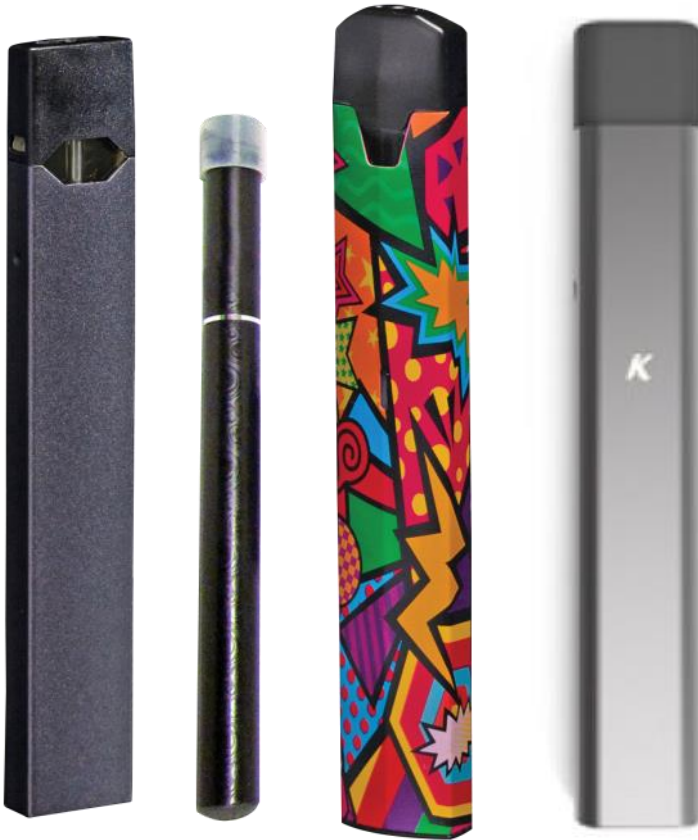
Components



- Cartridge or reservoir to hold a e-liquid/e-juice
- Heating element (atomizer)
- Power source (battery)
- Mouthpiece to inhale



Types of Products



**Rechargeable E-cigarettes
(JUUL, myblu, Bo, Kandypen)**



Disposable E-cigarettes

Types of Products



Tank Systems

Vape Pens

Types of Products



E-liquids and E-Juices

Pods

New and Emerging Products



Most Popular Brands Among Youth



JUUL



Suorin



Aspire/Breeze



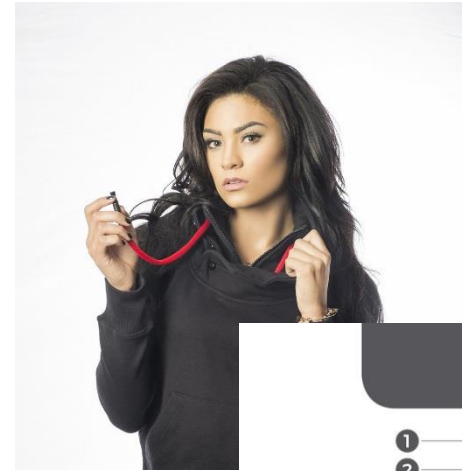
Phix



Other Items



- \$34.99 - \$89.99
- Discreet and easy-access
- Drawstring vapor delivery system is integrated directly into your “Vaprwear” for easy vapor delivery anytime, anywhere



**HYDRO-VAPE
BACKPACK**



- | | |
|---------------------------------------|---------------------------|
| 1 Stash pocket | 6 Mouthpiece |
| 2 Fleece-lined valuables pocket | 7 Expandable storage flap |
| 3 Integrated Drawstring™ vapor system | 8 Tech chamber |
| 4 Insulated hydro bladder pocket | 9 Avalanche whistle |
| 5 Drawstring security straps | 10 Waist strap |

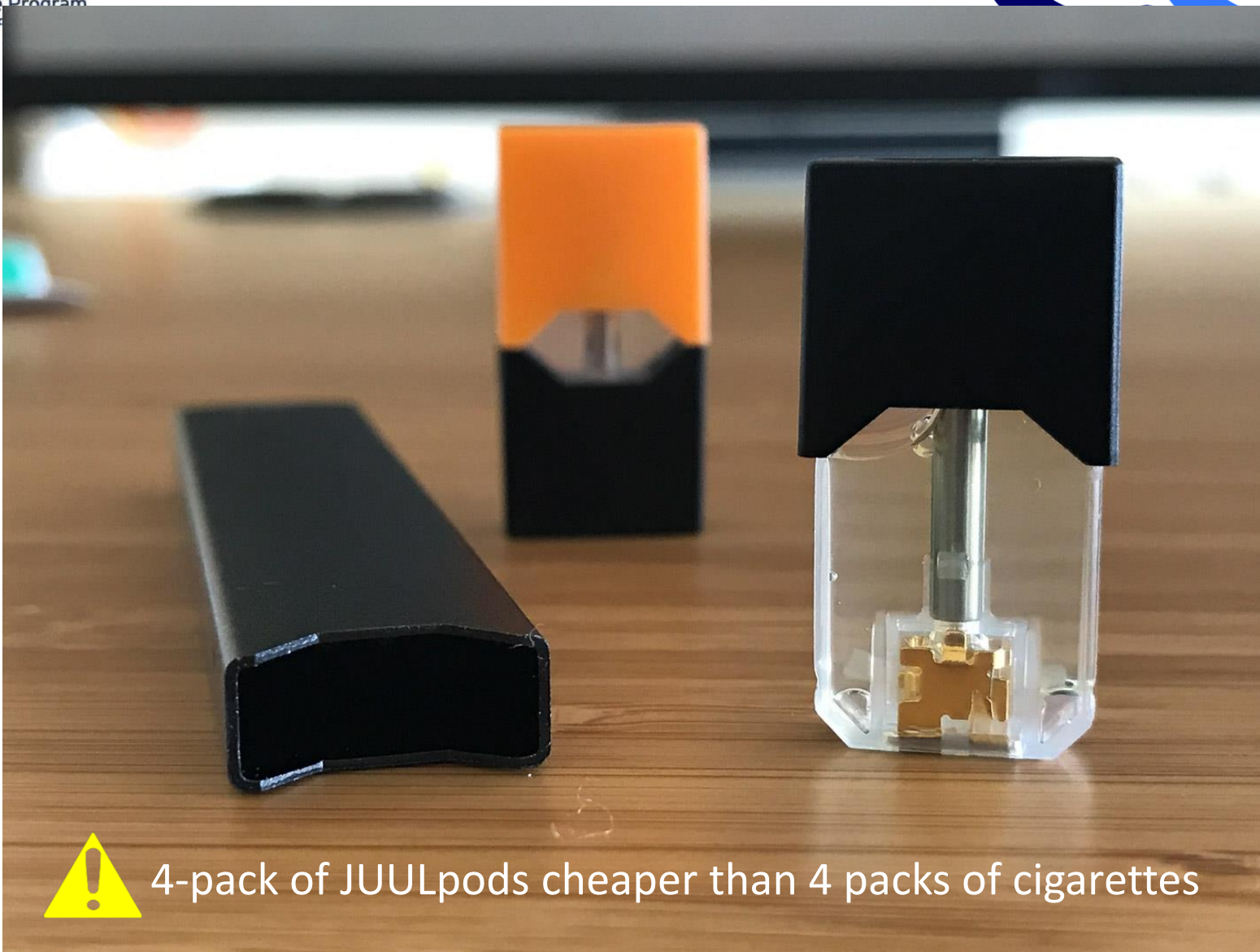
JUUL



- Popular with youth
- JUUL -\$49 plus \$15.99/pod
- **Pod flavors:** mango, mint, fruit medley, crème brulee, Virginia tobacco etc.
- Contain 5% nicotine = 1 pack of cigarettes or 200 puffs
- Look like USB device, discreet



Anatomy of a JUUL



4-pack of JUULpods cheaper than 4 packs of cigarettes

PHIX



- Similar to the JUUL
- Kit = \$34.95 and refills = \$19.99 (4)
- 50mg nicotine = 200 puffs (website states it's the equivalent of 2 packs of cigarettes or 400 puffs)



Suorin Vape



- Starter kit is between \$17-40
- Around the size of a credit card
- 2mL refillable pods
- Charged with a micro-USB charger



Suorin' Drop



Suorin' Air

Other Popular Devices



What is being vaporized?

- Flavored liquids including chemicals like glycerin and polyethylene glycol (aka: e-juice; e-liquid)
- Flavored liquids with varying levels of nicotine
- Leaf marijuana
- THC oil/marijuana concentrates
- Open systems require the user to add the e-juice, which can be a substance other than nicotine
- Closed systems (those that use pre-filled pods) can also be altered to vape substances other than nicotine

Vaping Other Drugs



THC: The psychoactive ingredient in marijuana, can be converted to an oil. The THC concentrate is much stronger

Synthetic Marijuana: K2, Spice: 100 times more psychoactive than THC. Can cause dangerous spike in BP, seizures, kidney failure and chest pain

Flakka: Synthetic drug that is cheap and deadly.
Paranoid psychosis, elevated body temp., insensitivity to pain, and fatigue

DMT: Dimethyltryptamine is one of the strongest hallucinogens in the world, more powerful than LSD



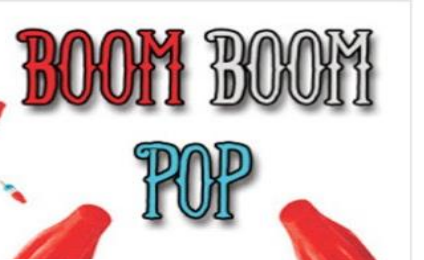
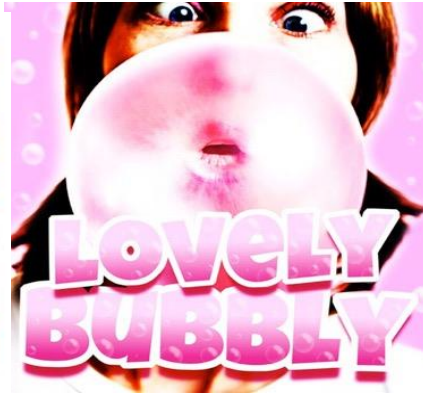
E-Juice



- There are literally thousands of **e-juice** flavor options, a marketing tactic to lure new customers that is especially appealing to young people



Flavors



What's Your Taste?

#1 Flavor Selection with 19 Flavors!

- | | | | | |
|------------|---------|-----------|------------|-----------|
| | | | | |
| Tobacco | Cowboy | Menthol | Almond | Apple |
| | | | | |
| Banana | Cherry | Chocolate | Cinnamon | Clove |
| | | | | |
| Coffee | Grape | Orange | Peach | Pineapple |
| | | | | |
| Strawberry | Vanilla | Mellon | Mild Menth | Variety |





What are they vaping?

MARIJUANA



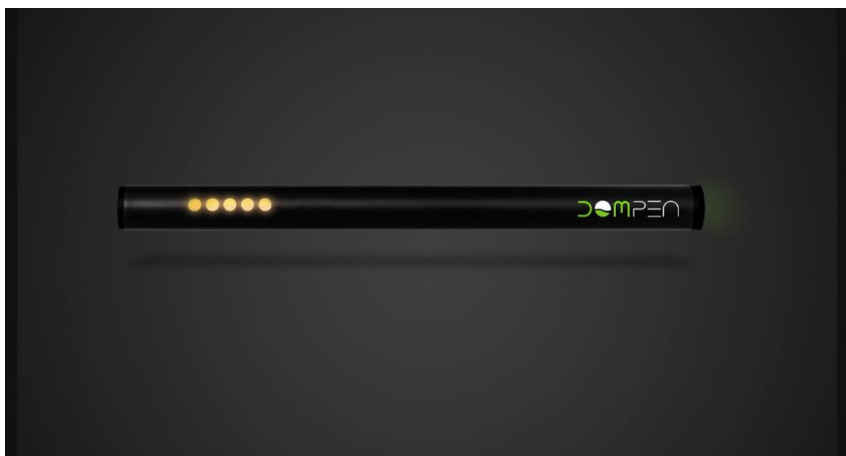
Vaping Dry Marijuana and Oils



 MedicalJane



Disposable Marijuana Vape Pens and Oils



Butane Hash Oil (BHO)

Wax, Dabs, Oil, Errl,
Earwax, Budder, or
Shatter



- High THC content
- Can be vaped



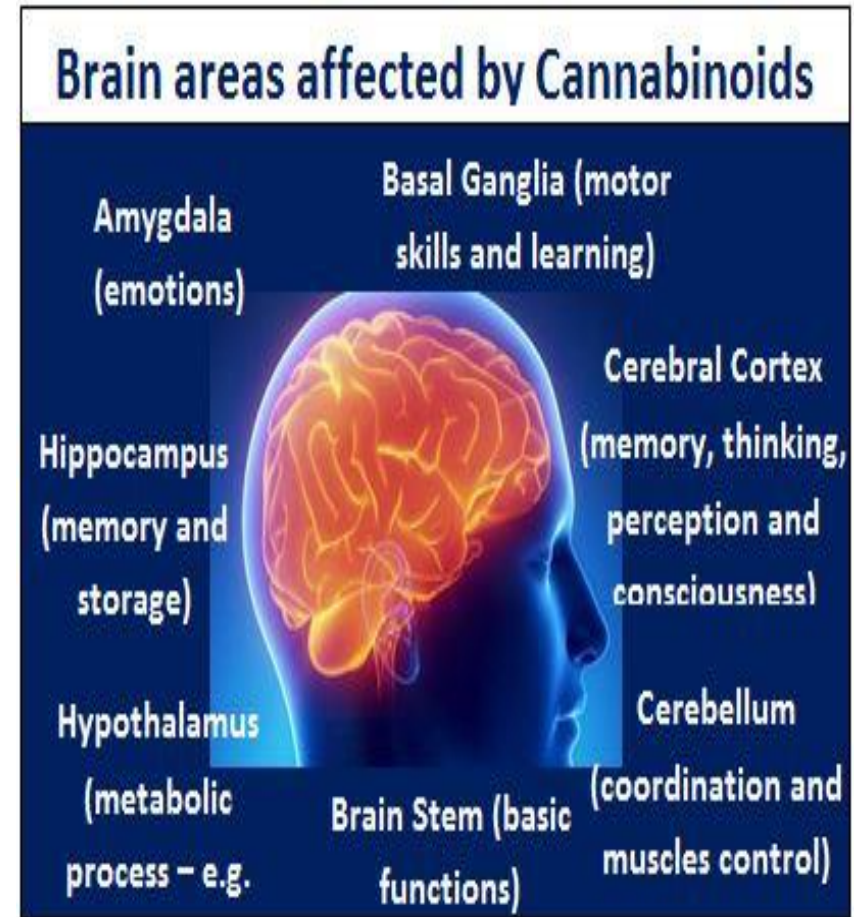
What's in TODAY'S Marijuana?

- Contains about **500** components, most of which we know little about
- Most prominent component, THC, is what produces the “high” users experience
- In today's street marijuana, which is usually smoked, producers have increased THC levels by more than **4 TIMES!**

Harmful Effects of Marijuana



- Problems with memory & learning
- Distorted perception
- Trouble thinking & problem-solving
- Loss of motor control
- Increased heart rate
- Apathy
- Mental Illness





What are they vaping?

NICOTINE

Cigarettes Smoked	E Liquid Strength
0-5 per day	None - 0mg
5-10 per day	X.Low - 6mg
10-15 per day	Low - 11mg
15-20 per day	Medium - 18mg
20-25 per day	High - 24mg
25+ per day	X.High - 36mg



Adolescent Nicotine Users



- More likely to:
 - become addicted, use for more years and use more heavily
 - have depression, anxiety and other mood disorders
 - have difficulty paying attention/concentrating
 - have reduced impulse control
 - use other substances



How Do They Get Them?

- **Social Source**, meaning a friend or relative
- Legal purchase age varies from state to state, and in some cases by city
- Many online vendors also sell vape devices and e-juice. Underage youth may use Visa Gift Cards or PayPal accounts
- Look for boxes delivered to home. Can also be sent to Amazon lockers

Reasons Teens Like Them

- Produces a fraction of the odor
- Portable and easily hidden – press a button and inhale
- Cartridges allow for customization of flavors, nicotine levels and cannabis compounds
- Vaping tricks

Reasons for Use of Electronic Vaporizers Grades 8, 10, and 12, 2015

(Entries are percentages.)

What have been the most important reasons for your using an electronic vaporizer such as an e-cigarette? (Mark all that apply.)

	<u>8th Grade</u>	<u>10th Grade</u>	<u>12th Grade</u>
	<u>2015</u>	<u>2015</u>	<u>2015</u>
To help me quit regular cigarettes	4.7	7.0	9.6
Because regular cigarette use is not permitted	6.3	6.7	5.2
To experiment-to see what it's like	54.8	51.4	53.6
To relax or relieve tension	22.0	22.2	20.7
To feel good or get high	9.8	8.3	7.2
Because it looks cool	14.3	13.5	13.5
To have a good time with my friends	22.5	23.9	20.5
Because of boredom-nothing else to do	24.7	24.1	22.0
Because it tastes good	31.5	39.4	38.4
Because I am "hooked"-I have to have it	1.2	1.3	0.8
<i>Weighted N =</i>	603	846	1449

Source. The Monitoring the Future study, the University of Michigan.

More than 60% of teens believe occasional use causes little or no harm.

Vaping Tricks



Marketing - Look Familiar?



You've come a long way, baby.



VIRGINIA SLIMS
Lights



Reprints from the Loring Co.

SMOKE IN STYLE
 With blu Electronic Cigarettes

Freedom never goes out of fashion. Control when and where you want to smoke with blu electronic cigarettes. blu produces no smoke and no ash, only vapor, making it the ultimate accessory and the smarter alternative to regular cigarettes. Step out in style with blu.

SCAN FOR A CHANCE TO WIN A STARTER KIT


 'Like' us on Facebook
facebook.com/blucigs



blu

blucigs.com

Available at these fine retailers:

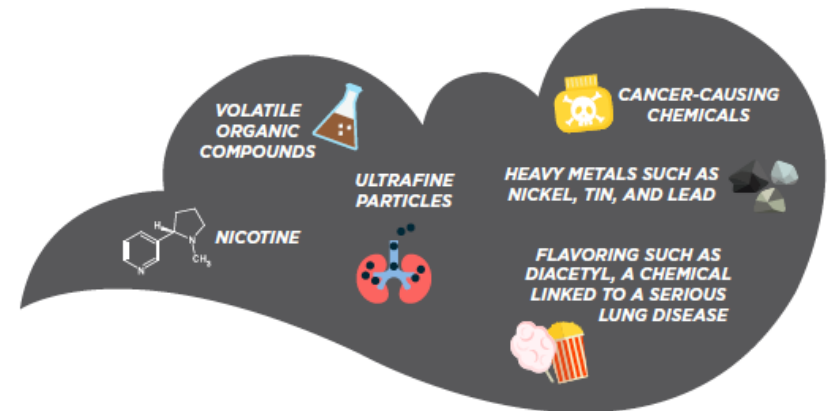


* Introducing the World's First Smart Pack (new only)

18+ only. CALIFORNIA PROPOSITION 65 Warning: This product contains nicotine, a chemical known to the state of California to cause birth defects or other reproductive harm.

What are the dangers of vaping?

- **No medical studies have been conducted on the long-term effects** of inhaling glycerin, propylene glycol, or any kind of flavoring
- The aerosol that users breathe from the devices and exhale can contain harmful and potentially harmful substances:
 - Volatile organic compounds
 - Heavy metals (nickel, tin and lead)
 - Ultra fine particles
 - Carcinogenic chemicals
 - Nicotine



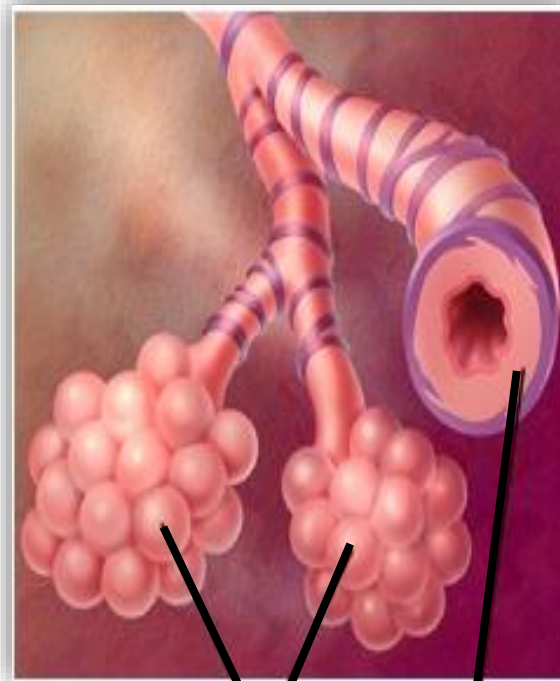
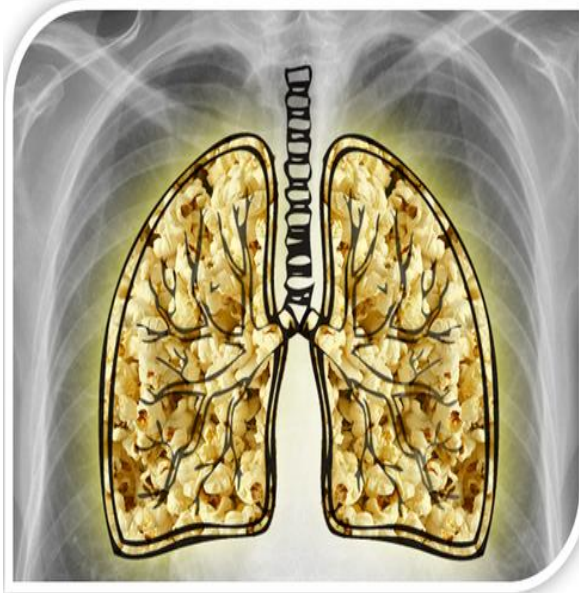


Which Chemicals Are Found in E-Cig/Vape Pen Aerosol?

<ul style="list-style-type: none">• Propylene glycol• Glycerin• Flavorings (many)• Nicotine• NNN• NNK• NAB• NAT• Ethylbenzene• Benzene• Xylene• Toluene• Acetaldehyde• Formaldehyde• Naphthalene• Styrene• Benzo(b)fluoranthene	<ul style="list-style-type: none">• Chlorobenzene• Crotonaldehyde• Propionaldehyde• Benzaldehyde• Valeric acid• Hexanal	<ul style="list-style-type: none">• Benzo(ghi)perylene• Acetone• Acrolein• Silver• Nickel• Tin	<ul style="list-style-type: none">• Cadmium• Silicon• Lithium• Lead• Magnesium• Manganese• Potassium• Titanium• Zinc• Zirconium• Calcium• Iron• Sulfur• Vanadium• Cobalt• Rubidium
<p>All of these have been found in e-cigarette/vape pen aerosol</p>			
<ul style="list-style-type: none">• Acenaphthylene• Acenaphthene• Fluoranthene• Benz(a)anthracene• Chrysene• Retene• Benzo(a)pyrene• Indeno(1,2,3-cd)pyrene	<ul style="list-style-type: none">• Aluminum• Chromium• Boron• Copper• Selenium• Arsenic• Nitrosamines• Polycyclic aromatic hydrocarbons		

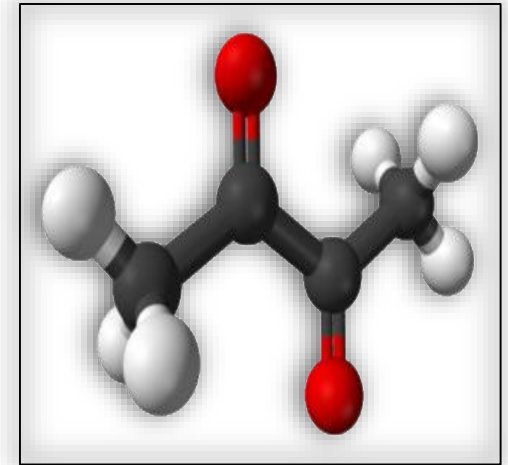
Compounds in yellow are from FDA 2012, Harmful and Potentially Harmful Substances – Established List

Popcorn Lung



Alveoli & Bronchioles
Experience scarring

Diacetyl



tobaccopreventiontoolkit.stanford.edu

More Vaping Harms



- Ear, eye and throat Irritation
- Gum disease
- Vaper's cough
- Defective e-cigarette batteries have caused fires and explosions, some of which have resulted in serious injuries
- Third-hand vapor
- Nicotine is highly addictive



What are the dangers of vaping?

- Formaldehyde found in vapor produced by several types of e-cigarette liquid
- **Second-hand vapor:** Some report respiratory irritation, nausea
- Acute nicotine exposure can be toxic
- Correlated to polysubstance use and adult addiction
- Impact on developing brain

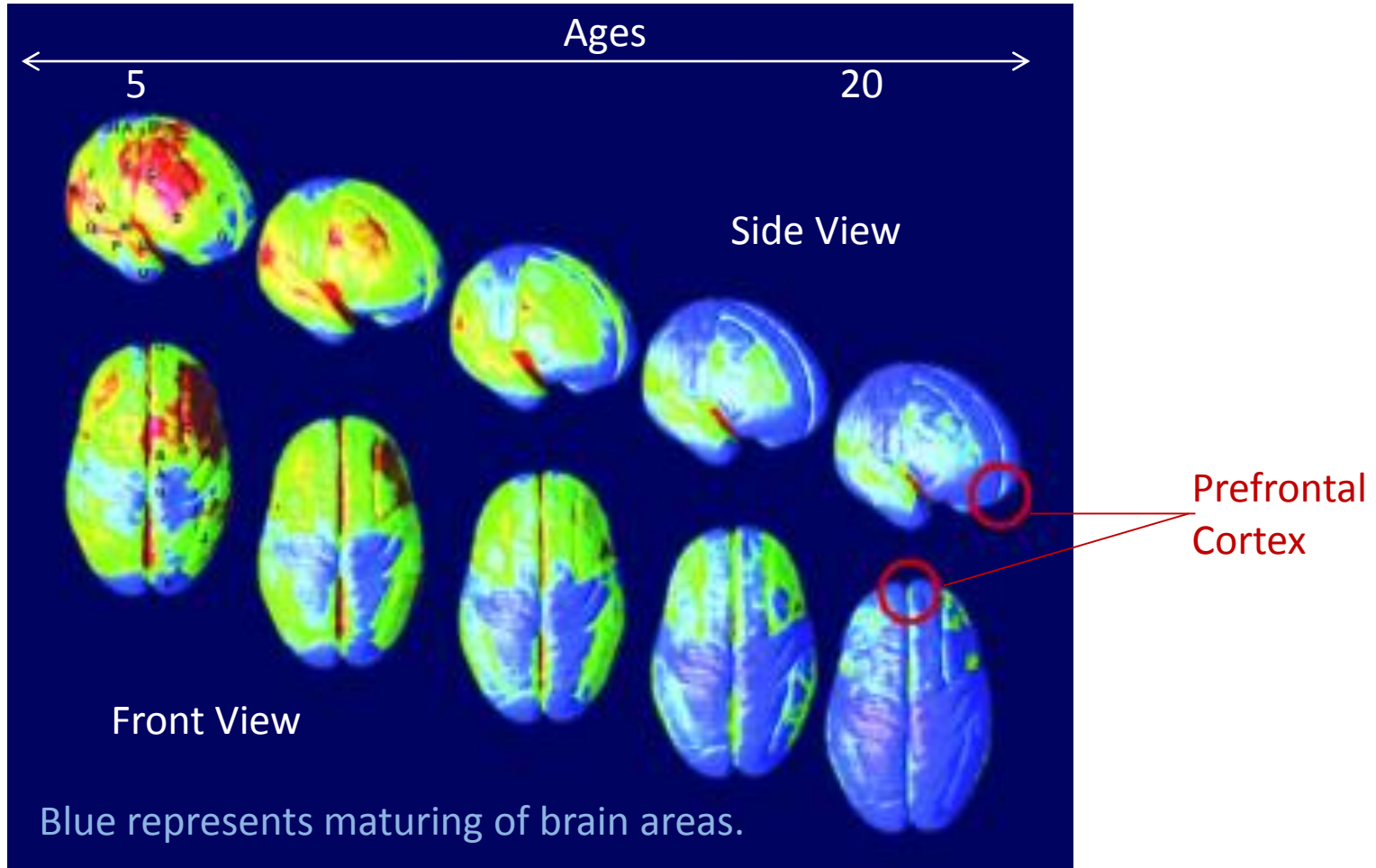


CAUTION!

Teen Brain Under Construction



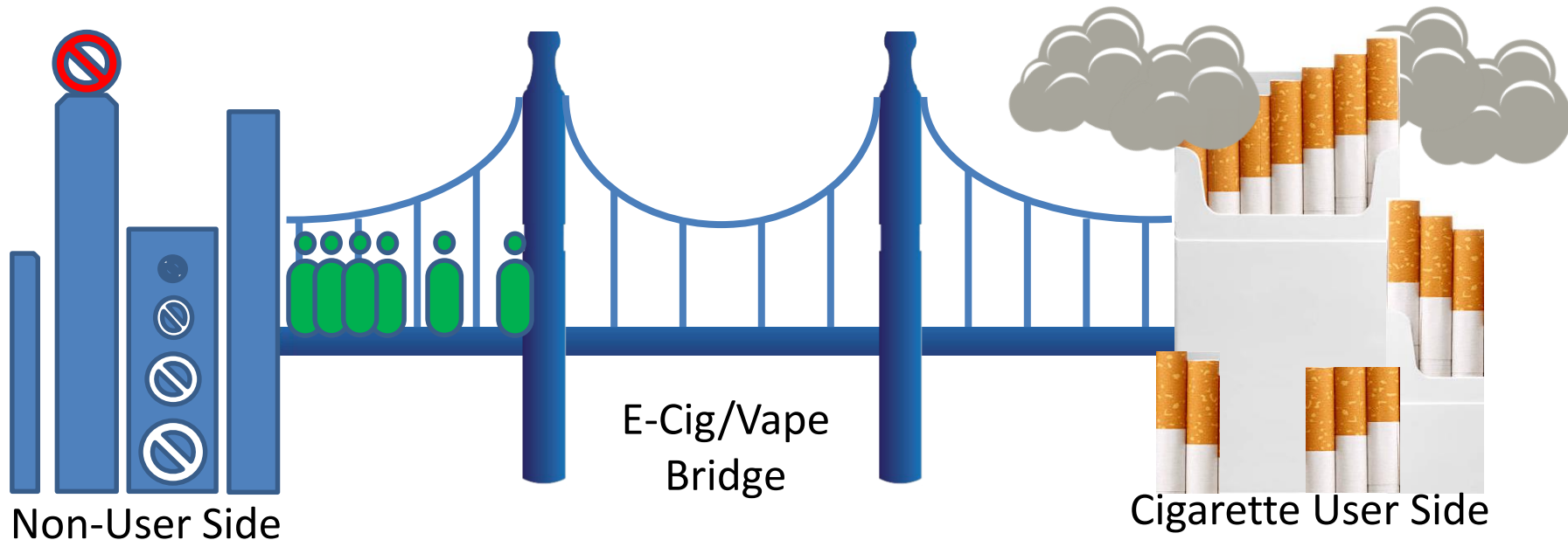
The adolescent brain is different from the adult brain, making it more vulnerable...



E-Cigarette/Vape Bridge to Cigarettes



Adolescents who vaped were **4 times** more likely to report cigarette smoking



Signs of Vaping



- Unexplained sweet scent
- Pens or flash drives that aren't pens or flash drives
- Dry mouth – drinking lots of liquids
- Nose bleeds
- Less caffeine use
- Glassy eyes





WHAT IS BEING DONE?!



Schools and Vaping



- Revising school policies to preclude vaping products
- Removing bathroom doors
- No flash drives
- Prevention education and intervention programs



Federally



- In 2016, the FDA finalized a rule (ENDS) that meet the definition of a tobacco product – allow for regulation of the manufacture, import, packaging, labeling, advertising, promotion, sale, and distribution of ENDS, including components and parts but excluding accessories
- Beginning in 2018, all "covered" tobacco products must bear the required nicotine addictiveness warning statement on product packages and advertisements
- Head of FDA called teen use an “epidemic” and ordered the five biggest manufacturers to say within 60 days how they will address it or face removal of their products from the market
- September 2018- FDA confiscates thousands of documents from JUUL headquarters



E-liquid or food product?



E-liquid



Food product

FDA, FTC warn companies to stop misleading kids



**WHAT can
we do?**

What Can You Do?



1. Talk Early and Often
2. Send Clear Messages
3. Ask For Help If You're Concerned





**You are the #1 Influence on your Child's
Relationship with Drugs and Alcohol**

Utilize Teachable Moments



Good Times to Talk



- Prepping for dinner
- While walking the dog
- Right before bed time
- In the car



Tips on Talking About Vaping Use

- State your clear messages of disapproval
- Allow opportunities for them to feel that that they've been heard
- Express your understanding of the risks, but also why a person might want to vape
- Share why you don't want him/her vaping
- Refusal skills
- Avoid scare tactics
- Have your loved one talk to other trusted adults who can reinforce your message
- Model healthy behaviors

What Can I Do If I Suspect My Child is Using?

- Intervene immediately
- Establish clear rules & consequences for having vape paraphernalia or for using nicotine
- Discuss the consequences that may happen outside of your home (school, sport's teams etc.)
- Get support from primary care physician, therapists, school counselors etc. and ask for local resources

Resilience is key in substance use prevention

- Resilience is why some children overcome obstacles to reach successful adulthood, while others become victims of their early experiences and environments
- The concept of resilience is defined as a process of parenting essential to prepare children for success in all areas of their future lives
- Asset-building



Egg vs. Bouncy Ball



EGG PEOPLE



**BOUNCY BALL
PEOPLE**

Developmental Assets



- Support
- Empowerment
- Boundaries and Expectations
- Constructive Use of Time
- Commitment to Learning
- Positive Values
- Social Competencies
- Positive Identity



For More Information on How You Can Build Resiliency in Your Child



Great Relationships Don't Just Happen.

Strengthen Yours Here.

Start with a short quiz about parent-kid relationships and preparing kids for success.

ParentFurther.
a Search Institute resource for families



Parent Websites



- **Parent Further**
www.parentfurther.com
- **The Partnership for a Drug-Free Kids**
<http://www.drugfree.org>
- **National Institute on Drug Abuse**
<http://www.drugabuse.gov/parents-teachers>
- **Surgeon General**
<https://e-cigarettes.surgeongeneral.gov>
- **Smokefree**
<https://smokefree.gov>





Thank You

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