

# Unpacking Myths and Facts about Vaping

Presentation for  
[date]



*This presentation is funded by a Minnesota  
Department of Health Commercial Tobacco-Free  
Communities grant*

**What do you know about  
these products???**

# The Evolution of Vaping Devices/E-cigarettes



2007  
Cig a like

2009  
Vape Pen



2012  
Mod



2015  
Juul – the first  
Pod Mod



2017  
Copycat Pod Mods



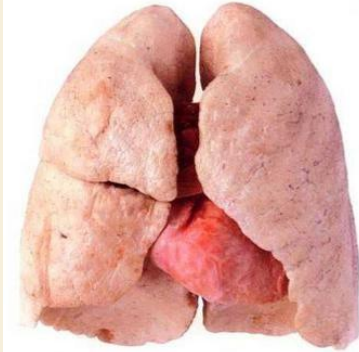
2019  
Disposable Pod  
Mods/Vapes



2021  
Disposable  
Synthetic  
Nicotine Vape



2022  
And beyond



Healthy Lung



Smoker's Lung

**"Give your throat a vacation...  
Smoke a  
FRESH  
cigarette"**

If the cigarette you have been smoking brings on hoarseness, coughs, or sore throats, switch to Camels and see the difference.

It's the peppy dust left in tobacco by inefficient cleaning methods that makes you cough.

It's the acridly hot smoke of herbs, dirt, and tars that irritates your throat.

There is no peppy dust in Camels—that's whisked away by a special vacuum-cleaning process.

There are no oils, tars, or pitch particles in Camels—only the finest, most delicate tobacco leaves of which Camels are blended come to you in prime, factory-fresh condition. Thanks to the Humidor Pack.

This scientific, automatic wrapping—not plastic ordinary Cellophane, but moisture-proof Cellophane—which coats evenly twice as much—keeps all the natural moisture and freshness, which is so highly that wet weather cannot make Camels damp, nor drought weather make them dry.

Camels are milder and more throat-friendly because they are dust-free and fresh.

Give your throat a vacation, switch to Camels for just one day. Then have them—if you can, for a week. You'll realize what a relief it is to have a smoke that's so clean, so fresh, so peppy.

It's to ensure the unobstructed passage from your nostrils to your lungs, the Humidor Pack is provided with dust and tar-free tobacco and leaves, even to the microscopic particles that, in the ordinary pack, are the cause of throat irritation and coughing. The Humidor Pack makes your throat and lungs feel like they've been on a vacation.

**CAMELS**  
NEED... NO CIGARETTE AFTER-TASTE

According to repeated nationwide surveys,

# More Doctors Smoke **CAMELS** than any other cigarette!

Doctors in every branch of medicine were asked, "What cigarette do you smoke?" The brand named most was Camel!

You'll enjoy Camels for the same reasons so many doctors enjoy them. Camels have cool, cool mildness, pack after pack, and a flavor unmatched by any other cigarette.

Make this sensible test: Smoke only Camels for 30 days and see how well Camels please your taste, how well they suit your throat as your steady smoke. You'll see how enjoyable a cigarette can be!

THE DOCTORS' CHOICE IS AMERICA'S CHOICE!



MILDRED S. HALL says: "I pick Camels. They agree with me."



BEN MERMEL says: "I get more pleasure from Camels than from any other brand!"



ALVIN BILLMYR reports: "Camels suit my taste and throat. I've smoked 'em for years!"

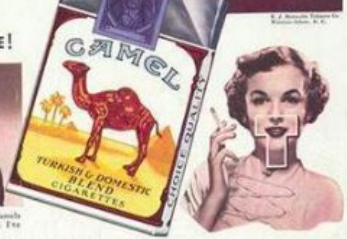






Photo credit: Stanford University



**What's in an e-liquid?  
(And are there any health harms  
from inhaling this stuff?)**



## 67 known chemicals

Vape aerosol contains many of the same **CANCER-CAUSING CHEMICALS** that are in cigarettes, like formaldehyde, heavy metals like lead, and ultrafine particles.

## Thousands of unknown chemicals

*"We don't even know what they are,".... They're not even in the normal list of chemicals that we can quantify or name in the lab, and these are going directly into the lungs of people that are vaping."* -2021 study co-author and John Hopkins assistant professor Ana Rule

# E-cigarette Aerosol Composition

- Propylene glycol
- Glycerin
- Flavorings (many)
- Nicotine
- NNN
- NNK
- NAB
- NAT
- Ethylbenzene
- Benzene
- Xylene
- Toluene
- Acetaldehyde
- Formaldehyde
- Naphthalene
- Styrene
- Benzo(b)fluoranthene
- Chlorobenzene
- Crotonaldehyde
- Propionaldehyde
- Benzaldehyde
- Valeric acid
- Hexanal
- Fluorine
- Benzo(ghi)perylene
- Acetone
- Acrolein
- Silver
- Nickel
- Tin
- Sodium
- Cadmium
- Silicon
- Lithium
- Lead
- Magnesium
- Manganese
- Potassium
- Titanium
- Zinc
- Zirconium
- Calcium
- Iron
- Sulfur
- Vanadium
- Cobalt
- Rubidium
- Fluoranthene
- Benz(a)anthracene
- Chrysene
- Retene
- Benzo(a)pyrene
- Indeno(1,2,3-cd)pyrene
- Boron
- Copper
- Selenium
- Arsenic
- Nitrosamines,
- Polycyclic aromatic hydrocarbons

**All of these have been found in e-cig aerosol**

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- Arsenic
- Nitrosamines,
- Polycyclic aromatic hydrocarbons
- Cadmium
- Silicon
- Lithium
- Lead
- Magnesium
- Manganese
- Potassium
- Titanium
- Zinc
- Zirconium
- Calcium
- Iron
- Sulfur
- Vanadium
- Cobalt
- Rubidium

**All of these have been found in e-cig aerosol**

# Propylene glycol - main ingredient in most vapes



**PROPYLENE GLYCOL**  
**WHAT IS IT?**

*Caution could be harmful*

Propylene Glycol is a form of mineral oil, an alcohol produced by fermentation of yeast and carbohydrates. This gives it the designation of carbohydrate when used in foods.

**X 10 foods with the anti freeze component!**

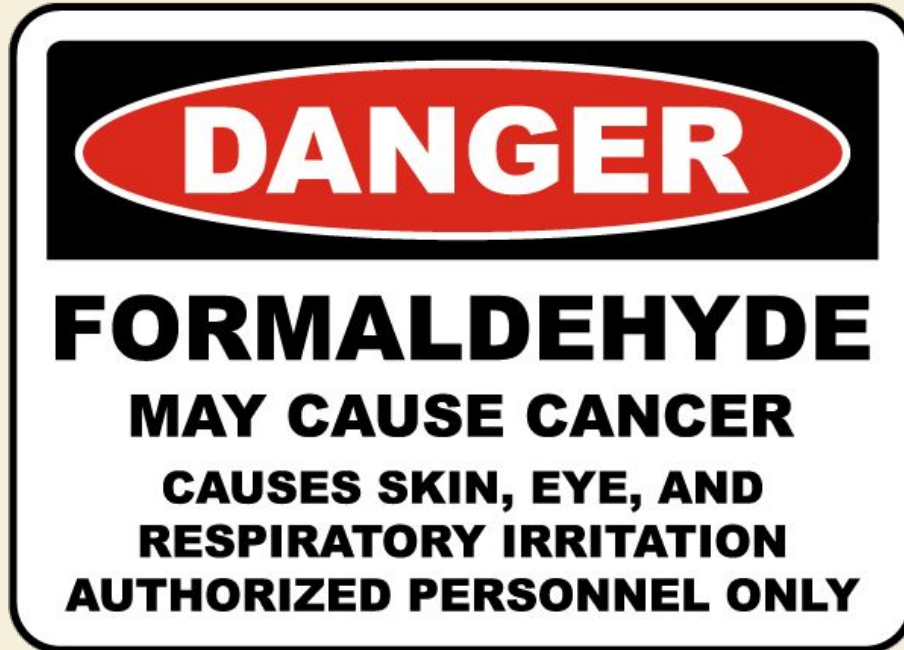
**1. Beer**  
**2. Pop Tarts**  
**3. Margarine**  
**4. Cake Mix**  
**5. Soda**  
**6. Ice Cream**  
**7. Icing**  
**8. Store bought salad dressings**  
**9. Whip cream**  
**10. non-organic Coffee**

**Piktochart**  
make information beautiful





**What happens to propylene glycol (hint: it's a liquid) when it's heated?**



# Formaldehyde\*

(for-mal-de-hyde)

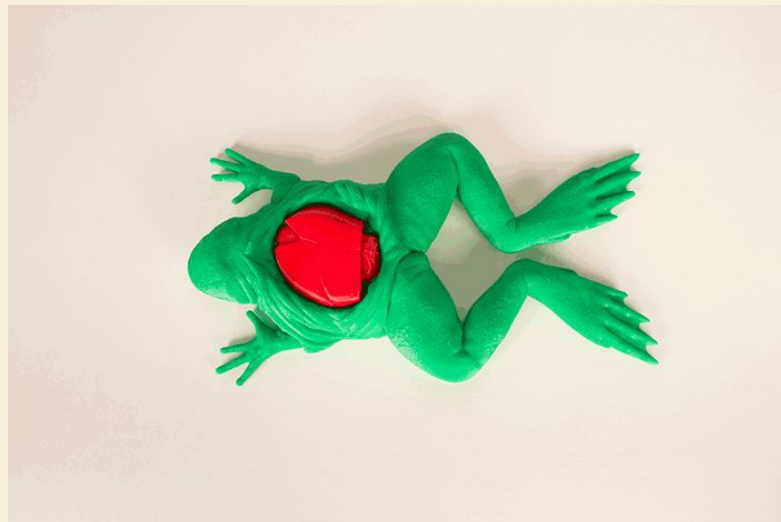
Vaping produces formaldehyde.  
Formaldehyde is used to preserve dead things.  
Make the connection.

\*Formaldehyde is a highly toxic poison.

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

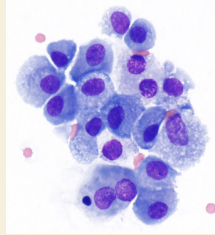
COUNTY OF SANTA CLARA  
Behavioral Health Services

Santa Clara County  
**PUBLIC HEALTH**



# Chemicals used to create vape flavors can damage the lungs, regardless of nicotine content.

- Breathing in flavored e-liquids can damage your lungs by killing cells and blocking the ability to clear away bacteria.



**Macrophages** - the body's street sweeper for the lungs



- Chocolate and banana flavors were found to be the most damaging to the lungs.



# Nicotine



## SMOKING NICOTINE IS LINKED TO:



CANCER



LUNG DISEASES  
& EMPHYSEMA



HEART ATTACKS &  
VASCULAR DISEASES



ANEURYSMS

In 1988, the Surgeon General  
declared that

**nicotine is as  
addictive as heroin  
and cocaine.**

# Cigs in a Pod



[tobaccopreventiontoolkit.stanford.edu](http://tobaccopreventiontoolkit.stanford.edu)

1 Pack of Cigarettes  
≈20 mg of nicotine



**≈20**  
CIGARETTES



1 JUUL pod  
≈41.3 mg of nicotine



**≈41**  
CIGARETTES



1 Puff bar  
≈50 mg of nicotine



**≈50**  
CIGARETTES



1 Suorin pod  
≈90 mg of nicotine



**≈90**  
CIGARETTES



# Many disposable vapes have even higher levels of nicotine

For Example:

1 Loon JuiceBox  
= 700 mg of nicotine or 400 cigarettes  
= 35 packs of cigarettes (700 mg)





# **“Nic sick” - Symptoms of Nicotine Poisoning from Vaping**

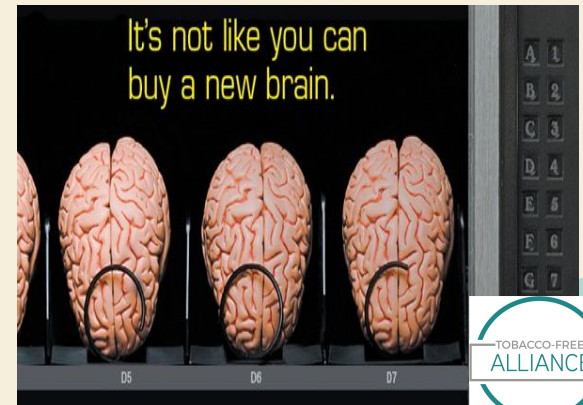
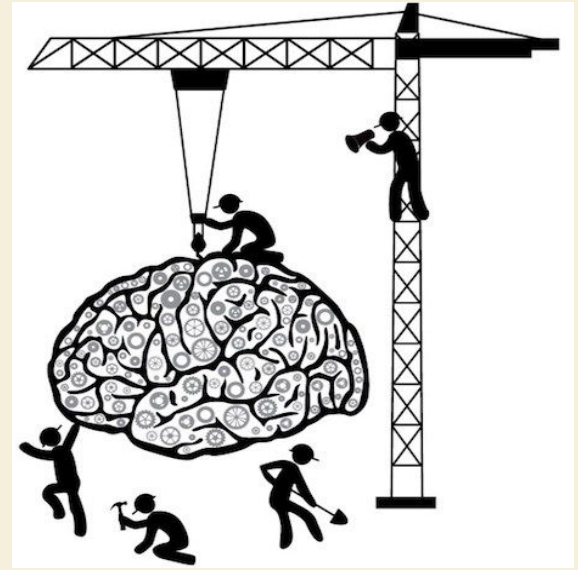
***“I’ve currently been experiencing feelings of nic sick. I would describe it as the worst nausea, the worst headache, dizziness; I felt like I was going to faint,”***

– Blaine, MN High School Junior describing her addiction to e-cigarettes.



# Nicotine and your Brain

- Adolescence is a critical period of brain development.
- The “risk taking/pleasure” part develops before the “judgement” part.
- No amount of nicotine is safe for youth.
- Nicotine is highly addictive.
- Youth exposed to nicotine are more likely to use other substances.



**Why do you think  
some people your  
age vape?**

**Why do you think  
some people your  
age don't vape?**

Turn and talk activity

**What stresses you out?**

**What's one of your favorite ways to cope with stress?**





# The cycle of nicotine addiction

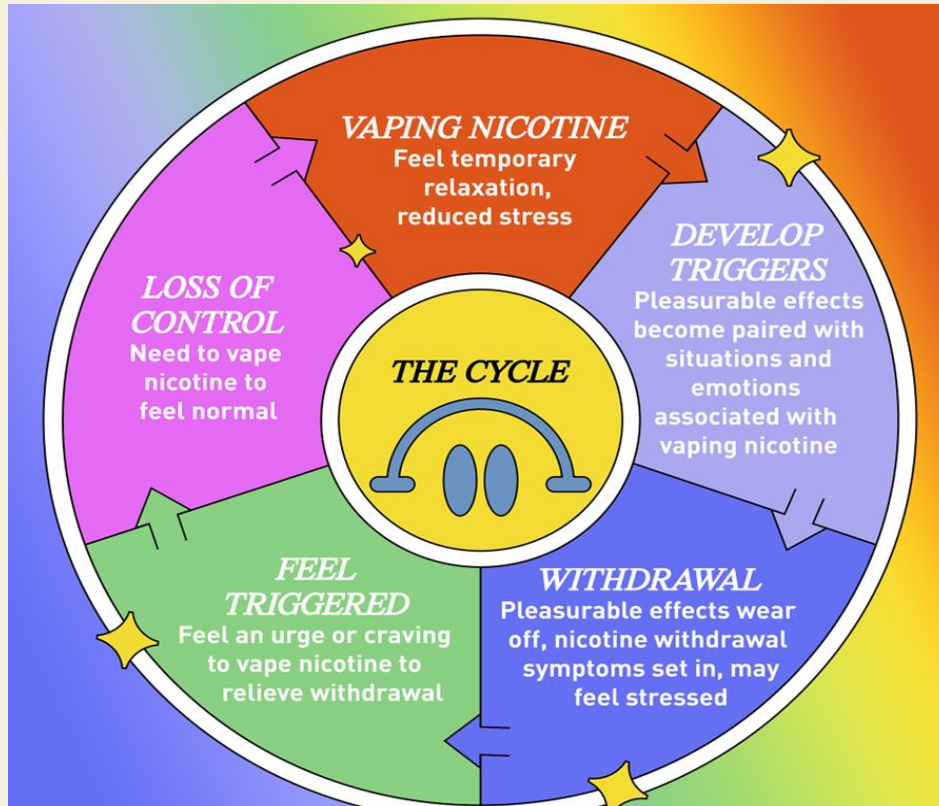


Image credit: <https://www.thetruth.com/article/vaping-stress>





**I vape and I can't  
stop. Now what?**

**Dr. Leslie Tiktok MyLifeMyQuit**

# Available for Minnesota youth: My Life, My Quit

- Available to youth ages 13-17
- Youth may enroll without parental consent
- 5 coaching sessions through text to chat, online chat, and phone calls, as well as youth-specific materials.
- Text **“Start My Quit”** to 855-891-9989 or call to talk with a coach who is ready to listen and cheer you on



**Free, confidential help  
to quit vaping and other  
tobacco for youth  
under 18**

[mylifemyquit.com](https://mylifemyquit.com)



Need a quick  
recharge?

Not every day is a good  
day, but it's important  
to remember there will  
be good days ahead.

Learn more at

**change**  
**to chill**<sup>™</sup>.org  
by Allina Health



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



# **More Vaping Harms You May Not Have Thought About:**

# 99 Billion pounds of E-Waste are discarded every year.

Vape waste is toxic and creates three huge environmental forms of waste:

1. E-waste
2. Hazardous and toxic chemical waste
3. Plastic waste



# Lithium-ion batteries in disposable vapes: (You can't just toss it in the garbage when the battery runs out.)

- Lithium-ion batteries are toxic and can catch fire when damaged.
- **Five** disposable vapes are thrown away every second in the U.S. despite containing reusable lithium-ion batteries.

= **150 million** devices tossed per year– which together contain enough lithium for about **6,000** Teslas.

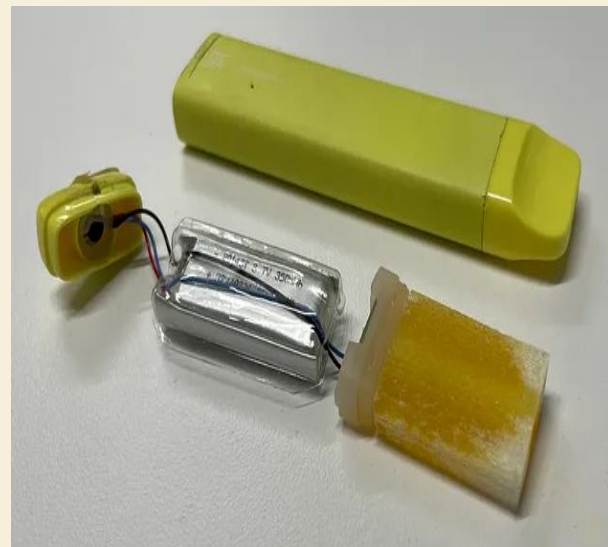


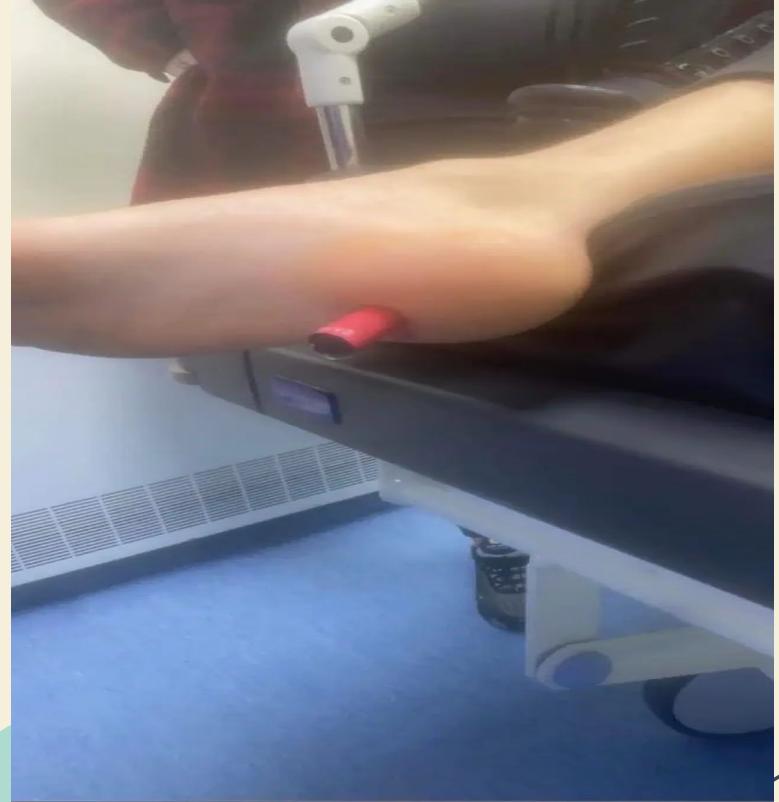
Photo: Lithium-ion battery in a disposable vape



# How much nicotine e-liquid would a small child or pet need to swallow to cause severe harm or death?



**One last warning: Do not impale yourself on a vape pen.**



# Tobacco Industry Targeted Marketing





# Tobacco Industry Quotes

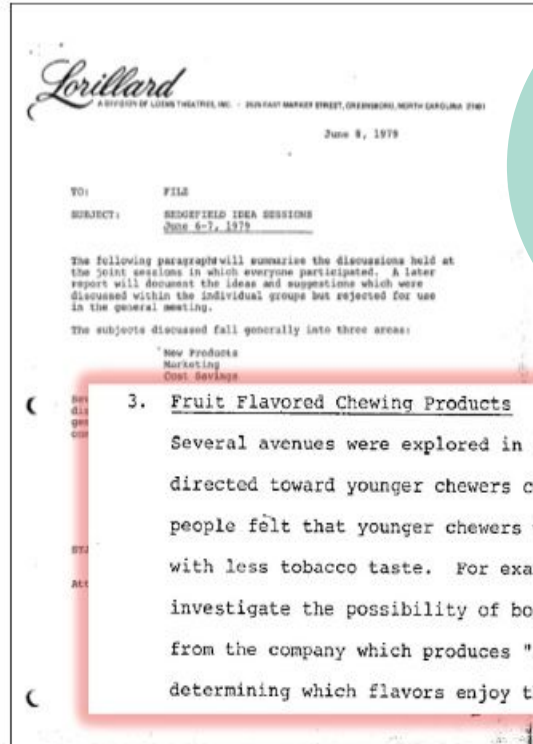
## Quotes from the Tobacco Industry:

- **“It is important to know as much as possible about teenage smoking patterns and attitudes. **Today’s teenager is tomorrow’s potential regular customer...**”**

1981 Philip Morris market research report on young smokers

**“We don’t smoke that s\_\_\_. We just sell it. We reserve the right to smoke for the young, the poor, the black and stupid.”**

*R.J. Reynolds executive’s reply when asked why he didn’t smoke according to Dave Goerlitz, lead Winston model for seven years for R.J. Reynolds.] Giovanni, J, “Come to Cancer Country; USA; Focus,” The Times of London, August 2, 1992.*



**“the base of our business is the high school student..” - 1978 Lorillard memo**

Lorillard (1979)

<http://legacy.library.ucsf.edu/tid/sdw88c00>



Lights Box: 9 mg "tar," 0.8 mg nicotine; Medium Box: 12 mg "tar," 0.9 mg nicotine; Full Box: 16 mg "tar," 1.3 mg nicotine av. per cigarette by FTC method.

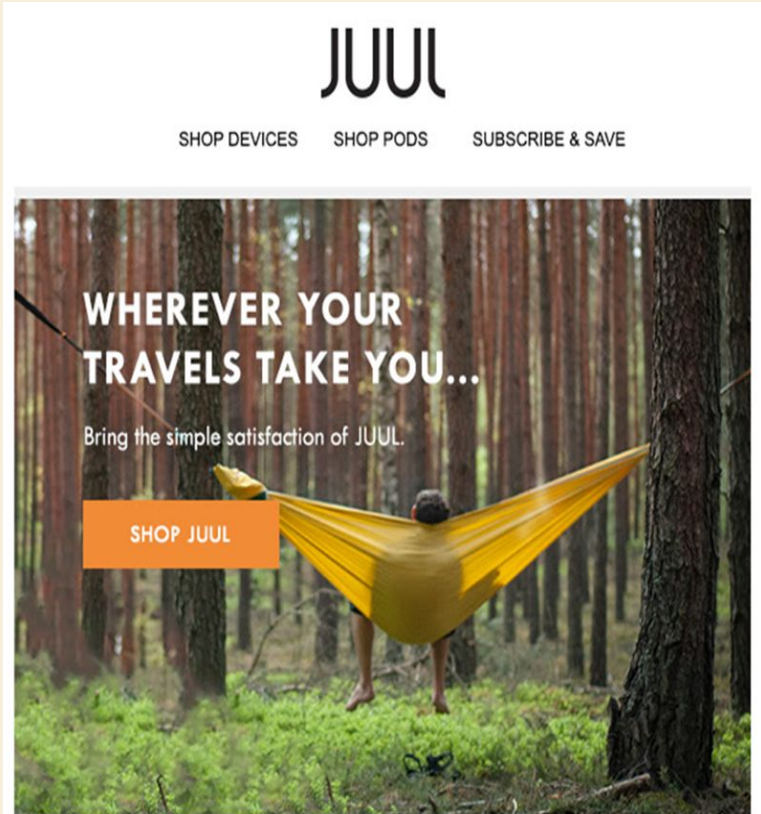
**SURGEON GENERAL'S WARNING: Quitting Smoking Now Greatly Reduces Serious Risks to Your Health.**

**Newport pleasure!**

© Lorillard 2010



# What are these ads trying to sell you?



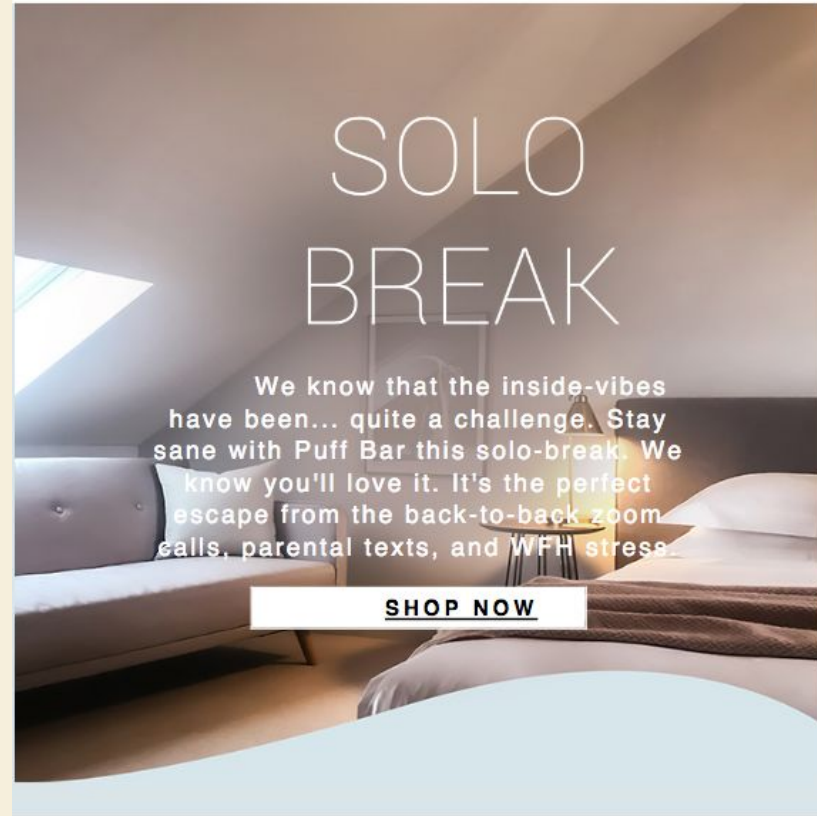
**JUUL**

SHOP DEVICES    SHOP PODS    SUBSCRIBE & SAVE

**WHEREVER YOUR TRAVELS TAKE YOU...**

Bring the simple satisfaction of JUUL.

[SHOP JUUL](#)



**SOLO BREAK**

We know that the inside-vibes have been... quite a challenge. Stay sane with Puff Bar this solo-break. We know you'll love it. It's the perfect escape from the back-to-back zoom calls, parental texts, and WFH stress.

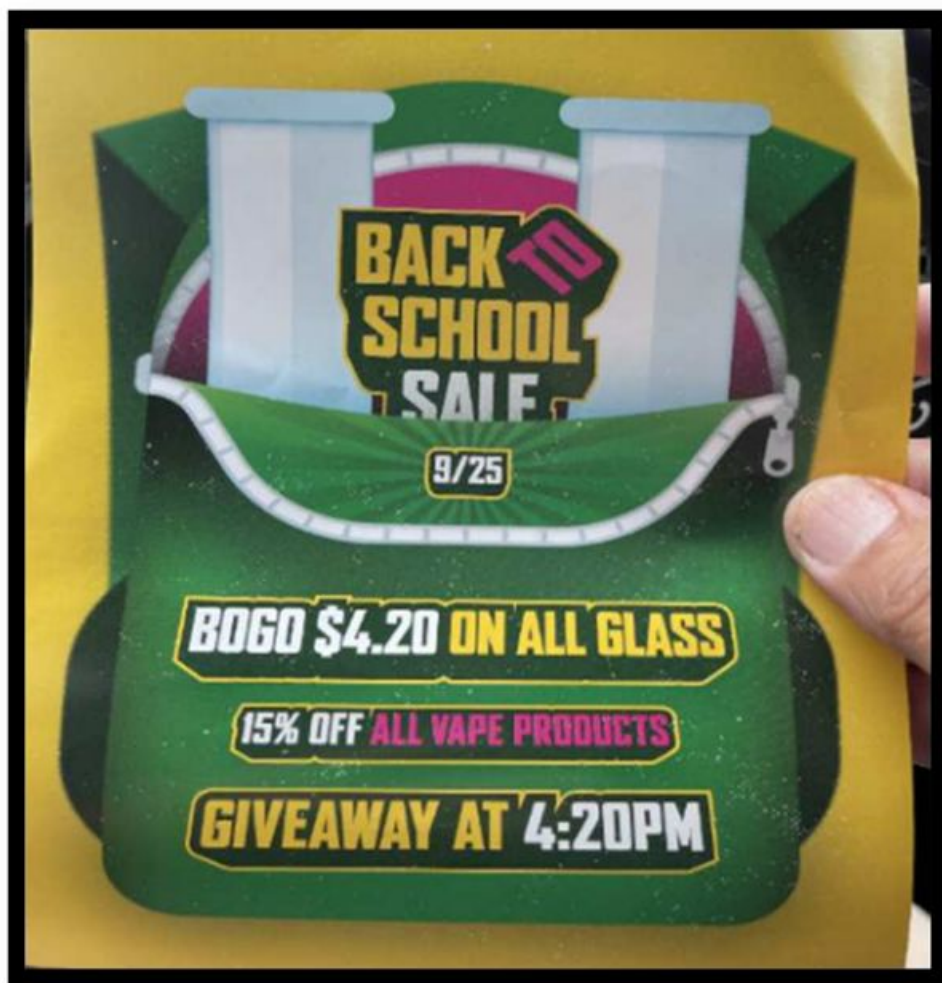
[SHOP NOW](#)





A promotional poster for a 'Back to School Giveaway'. The background is dark blue with a light blue wavy pattern at the bottom. The text is in bold, white and yellow fonts. There are illustrations of a key, a pen, a Hydro water bottle, and a cartoon gorilla wearing a blue shirt with 'KONG' on it.

**BACK TO SCHOOL**  
**9/26**  
**GIVEAWAY**  
STARTING AT 4:20  
**BOGO \$4.20**  
ON GLASS  
**15% OFF**  
ALL VAPE PRODUCTS  
**BUY THREE GET ONE FREE**  
ON DISPOSABLES



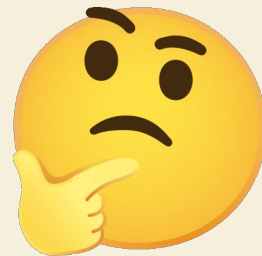
A promotional sign for a 'Back to School Sale'. The sign is green and yellow, shaped like a school bag with a zipper. The text is in bold, yellow and white fonts. There are illustrations of two white pens and a pink eraser.

**BACK TO SCHOOL SALE**  
**9/25**  
**BOGO \$4.20 ON ALL GLASS**  
**15% OFF ALL VAPE PRODUCTS**  
**GIVEAWAY AT 4:20PM**

# Pop Quiz!

How much money did the tobacco industry spend in Minnesota on tobacco product advertising in 2020?

- A. \$100,000
- B. \$576,000
- C. \$25 million
- D. \$112 million



**HINT** - Each year, the tobacco industry spends **\$9.5 billion** on marketing **in the U.S.** That's over **\$23 million** a day or **about one million dollars every hour.**

# What could you buy with \$112 million?

112,000 iPhone 14 Pros



8,000,000 Chipotle burritos & drink

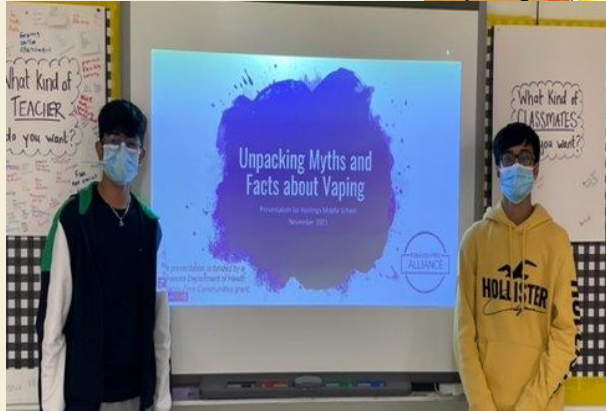


10.18 million people could go see a movie





# The most powerful voice in tobacco prevention - Youth







# Kahoot!