

# **Fentanyl: the Deadliest Drug Vaping: Nicotine and other Oils and everything in between...**

**Stephanie Siete  
Public Information Officer**

# Goals

- Be in the **know**
  - Know vs. No
  - Knowledge is key
- Do your **homework**
  - Tell 5 other people
  - Sharing is caring
- Share with your **circle**
  - Who are your people?
  - Neighbors, sister, best friend, gym pal, golf partner, co-worker, loved one

# Connecting...

- Social media
  - Early education
  - Fast pressure
- Risky behaviors
  - Drugs
  - Sexual acts
  - Suicidal acts
- Substances of abuse
  - Access and information

# What are we missing?

- How happy are we suppose to be?
  - Gotta save the 10s for big celebrations
- Why can't we feel good without chemicals?
- Are we teaching kids skills to thrive? Or are we the enablers and coddling them?
- Who is intervening w kids during developmental years?
  - Positive adult role models
- Why are Americans so needy?
  - Biggest consumers of drugs

# US Suicide Rate at 50 year High

- In 2017...
  - **44,193** committed suicide in the U.S
- **103 firefighters** and **140 police officers** committed suicide
  - 93 firefighters died in the line of duty
  - 129 police officers died in line of duty

# Youth Suicide Statistics

- Suicide is the **SECOND** leading cause of death for ages **10-24**
- More teenagers and young adults die from suicide than from cancer, heart disease, AIDS, birth defects, stroke, pneumonia, influenza, and chronic lung disease, **COMBINED.**
- Over 3,041 attempts daily by young people grades 9-12
  - Imagine the numbers if we counted earlier ages groups

# Why we all should care...

- Drugs don't discriminate
- It's a **community** concern
- Most drug deaths are from the legal ones
- **Face of addiction has changed**
- Let's prevent pain
- Lives matter... all of them
- Let's be in the know...

# Employee drug abuse includes these three facts about illicit drugs:

- The United States is about 5% of the entire world's population
  - **We buy and consume sixty percent (60%) of the *entire world's supply of illicit drugs***
- In the U.S., 77% of all illicit drug users are EMPLOYED either full or part-time

# Americans more likely to die from opioid overdose than in a car accident

BY ASHLEY WELCH

UPDATED ON: JANUARY 14, 2019 / 2:30 PM / CBS NEWS



For the first time on record, Americans are more likely to die of an accidental [opioid overdose](#) than in a motor vehicle crash, according to a new report from the National Safety Council.

The group calculates that the chance of dying from an opioid overdose has increased to **1 in 96**, surpassing the odds of dying in a car accident, at 1 in 103. It's also greater than the odds of [dying from a fall](#), a [gun assault](#), [pedestrian accident](#), or [drowning](#).

# Odds of Dying

For the first time on record, your odds of dying from an accidental opioid overdose are greater than dying in a motor-vehicle crash

Lifetime odds of death for selected causes, United States, 2017

Cause of Death	Odds of Dying
Heart Disease	1 in 6
Cancer	1 in 7
Chronic Lower Respiratory Disease	1 in 27
Suicide	1 in 88
<b>Opioid overdose</b>	1 in 96
<b>Motor Vehicle Crash</b>	1 in 103
<b>Fall</b>	1 in 114
Gun Assault	1 in 285
<b>Pedestrian Incident</b>	1 in 556
<b>Motorcyclist</b>	1 in 858
<b>Drowning</b>	1 in 1,117
<b>Fire or Smoke</b>	1 in 1,474
<b>Choking on Food</b>	1 in 2,696
<b>Bicyclist</b>	1 in 4,047
Accidental Gun Discharge	1 in 8,527
<b>Sunstroke</b>	1 in 8,912
Electrocution, Radiation, Extreme Temperatures and Pressure	1 in 15,638
Sharp objects	1 in 28,000
<b>Cataclysmic Storm</b>	1 in 31,394
Hot surfaces and substances	1 in 46,045
Hornet, wasp and bee stings	1 in 46,562
Dog attack	1 in 115,111
Passenger on an airplane	1 in 188,364
Lightning	1 in 218,106
Railway passenger	1 in 243,765

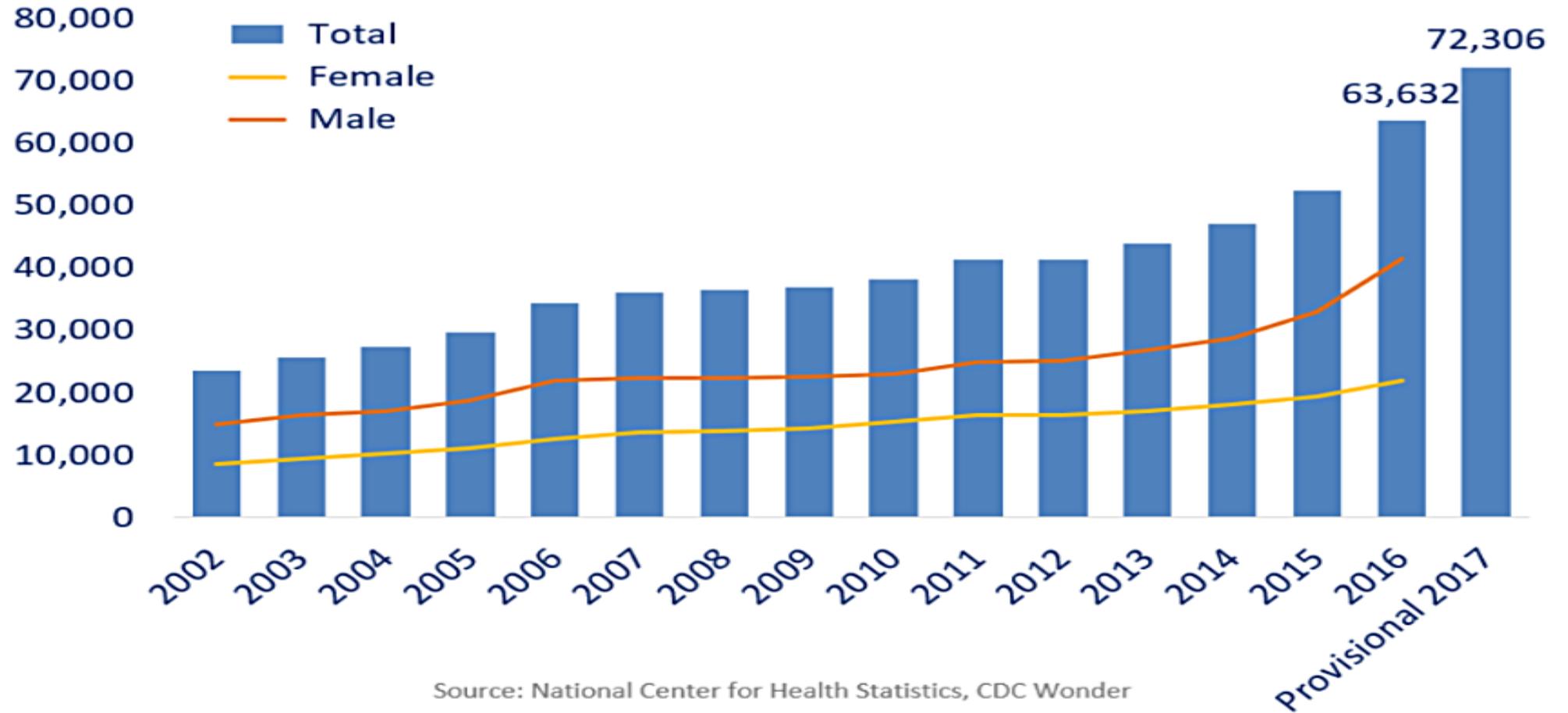


National Institute  
on Drug Abuse



# National Overdose Deaths

## Number of Deaths Involving All Drugs





# National Overdose Deaths

## Number of Deaths Involving Opioids



Source: National Center for Health Statistics, CDC Wonder

# Daily Opioid Deaths in US...

- 2015
  - 90 deaths a day
- 2016
  - 115 deaths a day
- 2017
  - 134 deaths a day

# In the news...

BERKS

## Bust on Route 222 leads to \$50K in fentanyl-laced heroin

Car stopped at Reading interchange of Pa. Turnpike

By: Jim Vasil

Posted: May 08, 2018 06:55 PM EDT

Updated: May 08, 2018 06:55 PM EDT



Health | Nation | Nation & World

## Fentanyl, mixed into cocaine and meth, is pushing overdose deaths higher

Originally published April 3, 2018 at 12:44 pm | Updated April 3, 2018 at 2:17 pm



FILE - In this Nov. 8, 2017, file photo, a Cleveland Police Department medic, usually unidentifiable, administers a drug to a man while responding to a possible overdose report at a gas station in downtown Cleveland. (AP Photo/John Manchillo, File)

As county coroners have begun releasing their 2017 tallies, a trend has emerged of more deaths involving meth or cocaine mixed with fentanyl, the dangerous opiate flooding in from China that many cocaine, meth and heroin users do not even realize is present in their drugs.

By DAN SEWELL

The Associated Press



SHEIN

SHOP NOW >

PUBLIC HEALTH

## Fentanyl-Laced Cocaine Becoming A Deadly Problem Among Drug Users

March 29, 2018 - 5:00 AM ET

Heard on Morning Edition

MARTHA BEBINGER

FROM 90.9 WHDH BOSTON'S NPR NEWS



## Heroin Use Spikes Fivefold in U.S.

By Maggie Fox / Mar. 29, 2017 / 6:17 PM ET / Updated Mar. 29, 2017 / 6:16 PM ET



A heroin user prepares to inject himself in New London, CT. John Moore / Getty Images

KIDS' HEALTH

# Nearly 12,000 Kids Poisoned by Opioids Each Year

by Maggie Fox / Mar. 20, 2017 / 10:36 AM ET



## Spirit Airlines Pilot, Wife Found Dead by Children After Possible Overdose

By Phil Matocchia and Sharon Williams / Mar. 17, 2017 / 5:08 PM ET / Updated Mar. 17, 2017 / 5:02 PM ET



Wife and Co-pilot, Spirit

Authorities on Friday were investigating the death of a Spirit Airlines pilot and his wife, whose bodies were found...

Home / News / Breaking News News /

## Akron boy, 9, calls 911 after baby brother overdoses on opiates; mother reportedly flees scene

Published: June 1, 2017 - 11:00 AM

By Akron Beacon Journal Staff



Rescuers arrived at a 3-year-old boy, who suffered an overdose after ingesting opiates Thursday evening in a home on Gale Street in West Akron.

Authorities said the boy's 9-year-old brother called 911 at 6:22 p.m. to say that the baby wasn't breathing. Officers and paramedics arrived at the home and gave the boy Narcan, an overdose reversal drug. Authorities were looking for the baby's mother, who fled when police arrived, Akron Police Lt. Rick Edwards said.

The boy was transported to Akron Children's Hospital, where he received a second dose of Narcan. He was breathing on his own at 8 p.m., police said.

Edwards said that this was the youngest opiate overdose ever recorded in Akron.

Summit County Children's Services took custody of both children.



MOST READ

WEARTV.com

NEWS WEATHER SPORTS FEATURES ON WEAR HEALTHWATCH CIRCA

## Opioid crisis is causing more grandparents to skip retirement to raise grandchildren

by Allie Norton |



# Fentanyl Bust in Nogales

- 254 pounds of fentanyl
  - Largest bust
- 395 pounds of methamphetamine
  - 3<sup>rd</sup> largest bust
- \$4.6 million street value

## Feds make largest fentanyl bust in U.S. history

Customs and Border Protection officers said Thursday they discovered 254 pounds of the drug hidden in a floor compartment of a truck trailer loaded with cucumbers.



Jan. 31, 2019, 11:52 AM MST

By Pete Williams

The sensitive nose of a drug-sniffing dog has led to what federal

Sponsored Stories

by Taboola





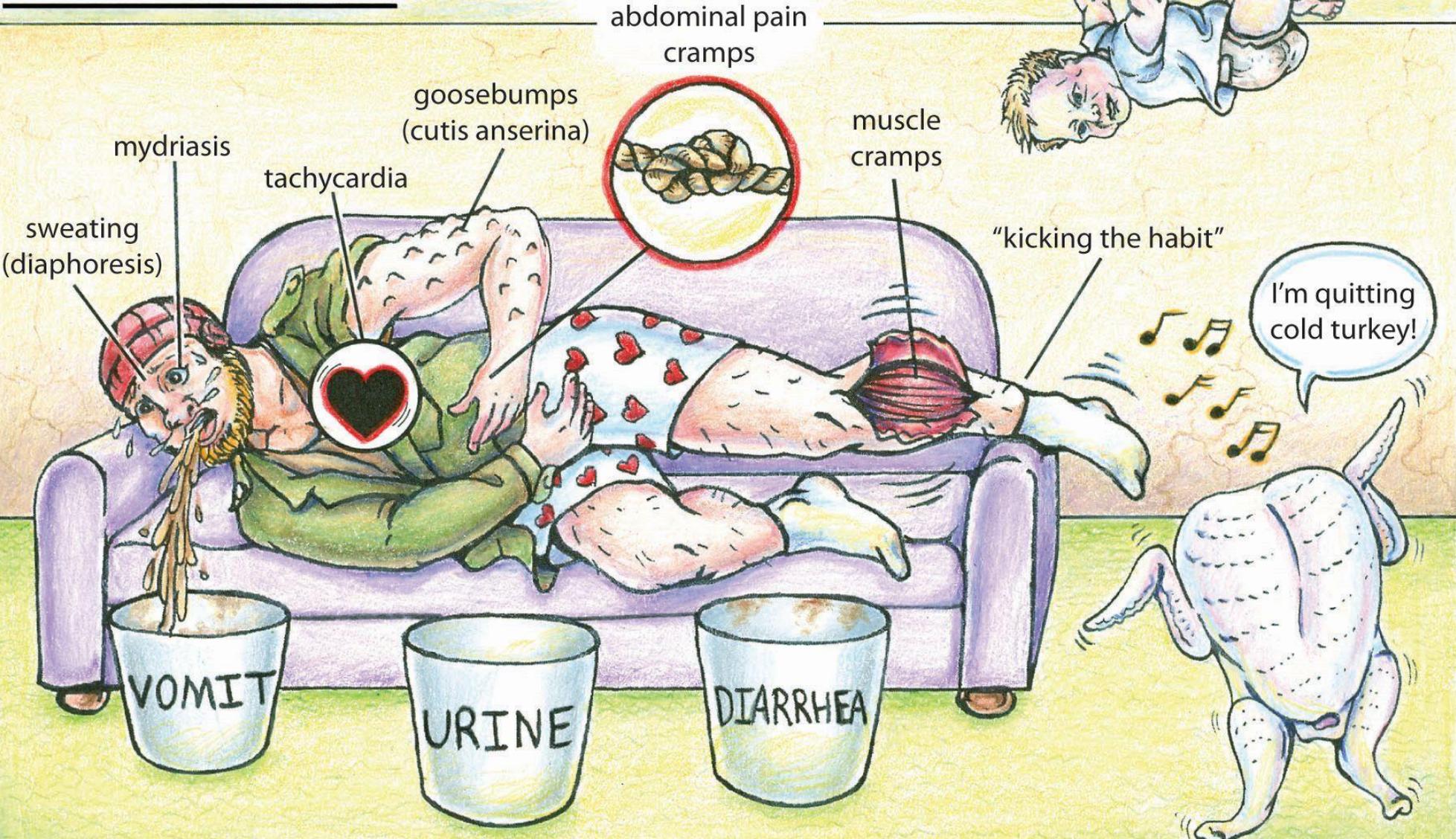
## Considerations...

- How do we deal with pain?
- Are pills the only option?
- Teaching coping mechanisms early
- Understanding physical addiction
- Being prepared to go through withdrawal
- Costs
  - Financial
  - Emotional
  - Physical
- Naloxone can't be a cure all



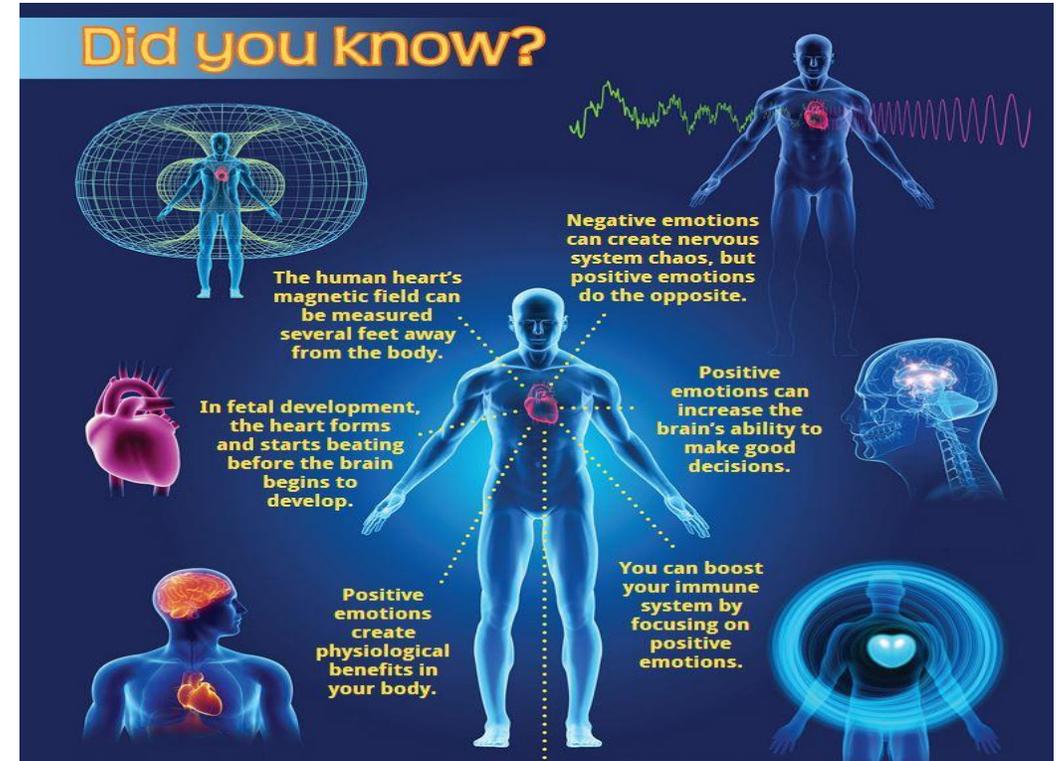
**US loves Rx**

# Opiate Withdrawal



# Alternative Pain Management

- Massage
- Meditation
- Biofeedback
- Hypnotherapy
- Chiropractic
- Aromatherapy
- Acupuncture
- Exercise
- Other relaxation therapies



# Mood-Boosting Power of Dogs

## – How Caring for a Dog Helps You Cope with Depression, Anxiety, and Stress

- Dogs in particular **can reduce** stress, **anxiety**, and depression, ease loneliness, encourage exercise and playfulness, and even improve your cardiovascular health. Caring for a dog **can** help children grow up more secure and active or provide valuable companionship for older adults



# Studies have found...

- **Dog owners are less likely to suffer from depression than those without pets**
- People with dogs have lower blood pressure in stressful situations than those without pets. One study even found that when people with borderline hypertension adopted dogs from a shelter, their blood pressure declined significantly within five months
- **Playing with a dog or cat can elevate levels of serotonin and dopamine, which calm and relax**
- Pet owners have lower triglyceride and cholesterol levels (indicators of heart disease) than those without pets
- **Heart attack patients with dogs survive longer than those without**
- **Pet owners over age 65 make 30 percent fewer visits to their doctors than those without pets**



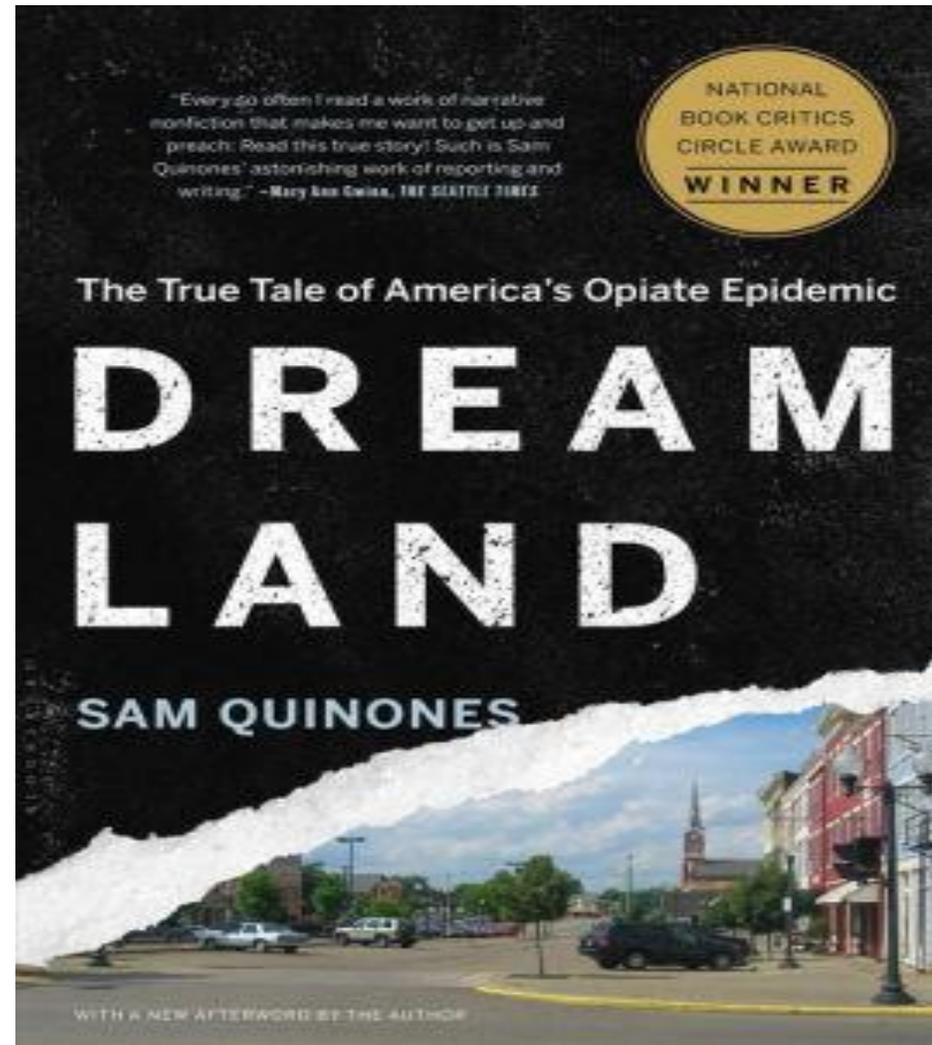
**My happy:  
Cubbie and Ivy**



# One Nation Overdosed

- <https://www.nbcnews.com/storyline/americas-heroin-epidemic>
- <https://www.youtube.com/watch?v=MT74X6YMx5Q>
- <https://www.youtube.com/watch?v=C6g5ODWUyaA>
- <https://www.youtube.com/watch?v=paXCC5rAWMA>
- <https://www.youtube.com/watch?v=DhH-6TwhWpl>

# Dreamland: The True Tale of America's Opiate Epidemic



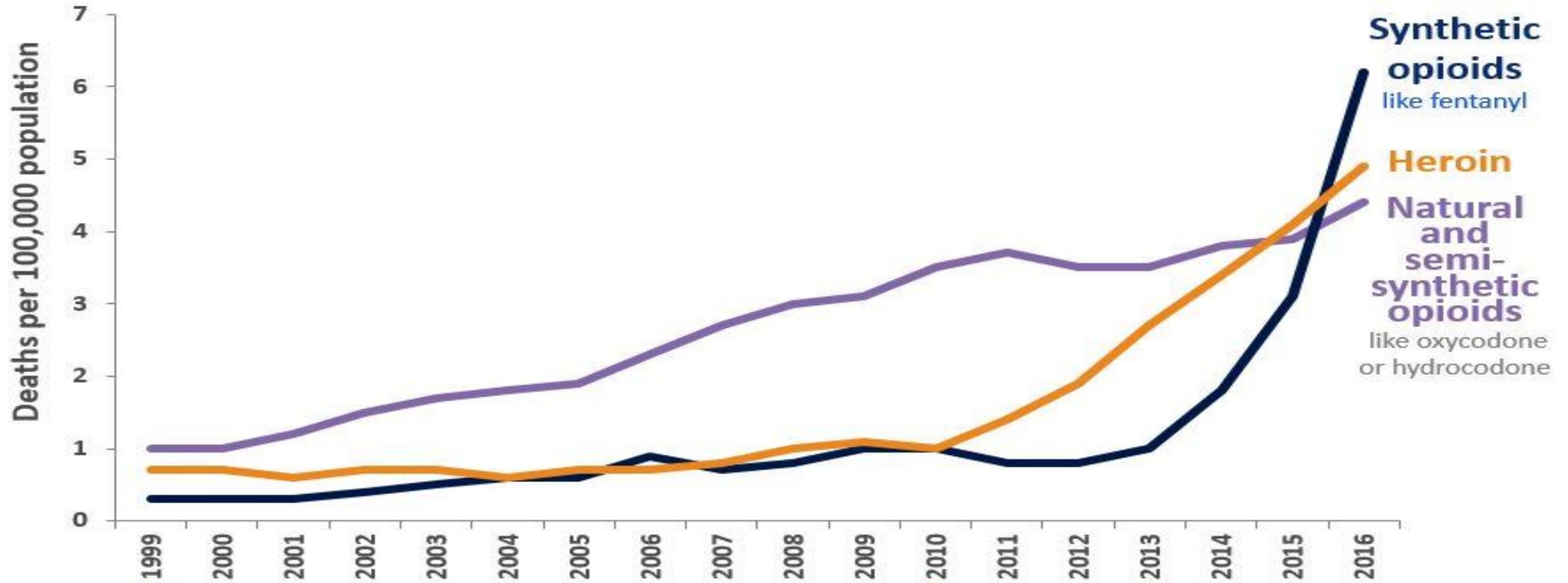
# Opioids drive continued increase in drug overdose deaths

Drug overdose deaths increase for 11th consecutive year

- **Drugs Deaths on the Rise in the US**

- **6,100** in 1980
- **16,849** in 1999 (**4,030** opioid analgesics)
- **36,500** in 2008
- **38,329** in 2010 (**16,651** opioid analgesics)
- **43,982** in 2013 (**16,235** opioid analgesics)
- **47,055** in 2014 (**18, 893** opioid analgesics)
- **52,404** in 2015 (**33,091** opioid analgesics)
- **64,070** in 2016 (**42,000 (est)** opioids)
- **72,300** in 2017 (**49,000 (est)** opioids)

# 3 Waves of the Rise in Opioid Overdose Deaths



Wave 1: Rise in Prescription Opioid Overdose Deaths

Wave 2: Rise in Heroin Overdose Deaths

Wave 3: Rise in Synthetic Opioid Overdose Deaths

SOURCE: National Vital Statistics System Mortality File.

**The United States has 5% of the world's  
population & consumes 80% of the  
global opioid supply**

Arizona Department of Health Services, 2017

# Heroin Purity

- In 1980s = **3.6% pure**
- 1990 = **18% pure**
- 1998 = **41% pure**
- Today = **60-90% ???**
- No longer have to inject heroin to feel the effect. Purity so high effects felt by snorting or smoking
- 1996-1998 – 19 young people die of heroin overdoses in Plano, Texas
  - Purity levels ranged up to 75%



# Heroin mimics Oxy



Heroin in the Heartland – CBS News 60 Minutes

# America's Heroin Epidemic:

<http://www.nbcnews.com/storyline/americas-heroin-epidemic>

6 Celebrities who struggled with Heroin use



# Heroin Overdoses

Ohio couple slumped over in front seat of vehicle due to heroin overdoses while 4 year old toddler sits in back seat

September 9, 2016



# Heroin use on the rise...

- [Toddler cries in store aisle as mother overdoses on heroin](#)
- Sept. 22, 2016



# 7-Year-Old's Parents Found Dead After She Told Her Bus Driver She Couldn't Wake Them

Oct 5, 2016, Pennsylvania

- Two residents were found dead in their home Monday evening after their 7-year-old daughter told a school employee that she was unable to wake them that morning, according to the Allegheny County Police Department
  - The girl told a school bus monitor that she did not want to go home because her parents "**had not moved**" for more than **two days and had been "changing colors,"** according to Lt. Andrew Schurman of the Allegheny County Police
  - Along with the 7-year-old, a 5 and 3-year-old, and 9-month old were in the home

# Heroin

## A Bad Batch?

- Heroin laced fentanyl
  - Fentanyl up to 100 times stronger than morphine
- 22 people died within a week in Pennsylvania (Feb. 2014)
- 28 more people in Philadelphia died after using heroin laced with the painkiller fentanyl between March 3 and April 20, the city announced May 12<sup>th</sup>, 2014
  - 22 to 53 years of age
- Sold as “Theraflu” or “Bud Ice”
- [The Dangers of Fentanyl-Laced Heroin - ABC News](#)
- [Actor’s Overdose Death Sheds New Light On Fentanyl-Laced Heroin Issue « CBS Pittsburgh](#)

# What is Fentanyl?

- Narcotic
  - It can treat severe pain.
- Potent
  - Up to 50 times stronger than heroin and 100 times stronger than morphine
- Controlled substance
  - High risk for addiction and dependence. Can cause respiratory distress and death when taken in high doses or when combined with other substances, especially alcohol.

# Florida sheriff deputy revived with Narcan, 3 others recovering after exposure to drugs

By Lucia I. Suarez Sang | Fox News



## Florida cop revived with Narcan after possible fentanyl exposure

Lake County Sheriff's Office spokesperson says one of their deputies had to be revived with Narcan after exposure to what investigators believed was fentanyl during a traffic stop. Two firefighters and a suspect also became ill from the exposure.

Florida first responders administered Narcan after fentanyl exposure

- Sheriff revived
- Firefighters and deputy needed Narcan too
- Male suspect fell ill

### Trending in US



Missouri could soon free' state since Ro

2

Tennessee church s 'severe mental illne

3

Michigan State cho

# Border Patrol seizes aircraft loaded with meth, fentanyl after it flies into US

Posted: 7:20 AM, May 25, 2019 Updated: 7:20 AM, May 25, 2019

By: MARK OSBORNE/ABC NEWS



null

+ Show Caption



TUCSON, AZ — An ultralight aircraft carrying half a million dollars worth of methamphetamine and fentanyl [across the southern border](#) was nabbed by Border Patrol agents late Thursday, according to the agency, but the pilot managed to make an escape.



Breaking news,  
traffic solutions, and  
your most accurate  
forecast! Watch  
**ABC15 Mornings!**

ADVERTISEMENT

## Creative Transnational Criminal Organizations

- Single person ultralight aircraft
- Drugs found, no pilot
- \$500,000 worth of meth and fentanyl

# Fentanyl Warning

- Since fentanyl can be ingested orally, inhaled through the nose or mouth, or absorbed through the skin or eyes, any substance suspected to contain fentanyl should be treated with extreme caution as exposure to a small amount can lead to significant health-related complications, respiratory depression, or death.

# FENTANYL<sup>†</sup>

## SAFETY RECOMMENDATIONS FOR FIRST RESPONDERS

<sup>†</sup> For the purposes of this document, fentanyl, related substances, and synthetic opioids (herein after referred to as fentanyl<sup>†</sup>) includes fentanyl analogues (e.g., acetylfentanyl, acrylfentanyl, carfentanil, furanylfentanyl), novel synthetic opioids (e.g., U-47700), and other drugs that may be laced with these substances.

- ▶ **The abuse of drugs containing fentanyl<sup>†</sup> is killing Americans. Misinformation and inconsistent recommendations regarding fentanyl<sup>†</sup> have resulted in confusion in the first responder community.**
- ▶ You as a first responder (law enforcement, fire, rescue, and emergency medical services (EMS) personnel) are increasingly likely to encounter fentanyl<sup>†</sup> in your daily activities (e.g., responding to overdose calls, conducting traffic stops, arrests, and searches).
- ▶ This document provides scientific, evidence-based recommendations to protect yourself from exposure.

### WHAT YOU NEED TO KNOW

- ▶ Fentanyl<sup>†</sup> can be present in a variety of forms (e.g., powder, tablets, capsules, solutions, and rocks).
- ▶ Inhalation of airborne powder is MOST LIKELY to lead to harmful effects, but is less likely to occur than skin contact.
- ▶ Incidental skin contact may occur during daily activities but is not expected to lead to harmful effects if the contaminated skin is promptly washed off with water.
- ▶ Personal Protective Equipment (PPE) is effective in protecting you from exposure.
- ▶ Slow breathing or no breathing, drowsiness or unresponsiveness, and constricted or pinpoint pupils are the specific signs consistent with fentanyl<sup>†</sup> intoxication.
- ▶ Naloxone is an effective medication that rapidly reverses the effects of fentanyl<sup>†</sup>.

#### Actions to take . . .

##### To protect yourself from exposure

- ▶ Wear **gloves** when the presence of fentanyl<sup>†</sup> is suspected.
- ▶ **AVOID actions that may cause powder to become airborne.**
- ▶ Use a properly-fitted, NIOSH-approved **respirator ("mask")**, wear **eye protection**, and minimize skin contact when responding to a situation where small amounts of suspected fentanyl<sup>†</sup> are visible and may become airborne.
- ▶ Follow your department guidelines if the scene involves large amounts of suspected fentanyl<sup>†</sup> (e.g., distribution/storage facility, pill milling operation, clandestine lab, gross contamination, spill or release).

##### When exposure occurs

- ▶ Prevent further contamination and notify other first responders and dispatch.
- ▶ Do not touch your eyes, mouth, nose or any skin after touching any potentially contaminated surface.
- ▶ Wash skin thoroughly with cool water, and soap if available. **Do NOT use hand sanitizers as they may enhance absorption.**
- ▶ Wash your hands thoroughly after the incident and before eating, drinking, smoking, or using the restroom.
- ▶ If you suspect your clothing, shoes, and PPE may be contaminated, follow your department guidelines for decontamination.

##### If you or other first responders exhibit

- **Slow Breathing or No Breathing**
  - **Drowsiness or Unresponsiveness**
  - **Constricted or Pinpoint Pupils**
- ▶ Move away from the source of exposure and call EMS.
  - ▶ Administer naloxone according to your department protocols. Multiple doses may be required.
  - ▶ If naloxone is not available, rescue breathing can be a lifesaving measure until EMS arrives. Use standard basic life support safety precautions (e.g., pocket mask, gloves) to address the exposure risk.
  - ▶ If needed, initiate CPR until EMS arrives.



#### Collaborative Support From:

- American College of Emergency Physicians
- American College of Medical Toxicologists
- American Industrial Hygiene Association
- Association of State and Territorial Health Officials
- Association of State Criminal Investigative Agencies
- Fraternal Order of Police

- International Association of Chiefs of Police
- International Association of Fire Chiefs
- International Association of Fire Fighters
- Major Cities Chiefs Association
- Major County Sheriffs of America
- National Alliance of State Drug Enforcement Agencies

- National Association of Counties
- National Association of County and City Health Officials
- National Association of Emergency Medical Technicians
- National Association of EMS Physicians
- National Association of State EMS Officials



- National Governor's Association
- National HIDTA Directors Association
- National Narcotics Officers' Associations' Coalition
- National Sheriffs' Association
- National Volunteer Fire Council
- Police Executive Research Forum
- Police Foundation

# What does Fentanyl look like?

- Fentanyl pharmaceutical products are currently available in the following dosage forms:
  - oral transmucosal **lozenges** known as fentanyl “lollipops” (Actiq)
  - effervescent buccal **tablets** (Fentora)
  - sublingual **tablets** (Abstral)
  - sublingual **sprays** (Subsys)
  - nasal **sprays** (Lazanda)
  - transdermal **patches** (Durag-esic)
  - **injectable formulations**
- Clandestinely produced fentanyl usually found as **powder or in counterfeit tablets**
  - sold alone
  - in combination with other drugs such as heroin or cocaine

## FENTANYL - A DEADLY SYNTHETIC OPIOID IS TAKING ON MANY FORMS



PRESCRIPTION PILLS & POWDER



INJECTED & LACED WITH HEROIN



TRANSDERMAL PATCHES &  
PHARMACEUTICAL LOLLIPOPS



SUBLINGUAL SPRAY



Fentanyl Pills and Crystals

Patches



Fentanyl Powder



“Lollipop”





# Deadly Dose

- 2-3 milligrams of fentanyl can induce respiratory arrest, depression and death
- 2-3 milligrams is the same as 5-7 grains of salt

Fentanyl  
dangerous in  
any format

---



Surprise Fire-Medical Department

August 19 at 7:11 PM · 🌐

Be aware, this is street fentanyl. This street drug looks harmless, but can have killer & devastating effects on you, families, & loved ones.

UPDATE: The Surprise Fire-Medical Department has been made aware that this "dough-like" substance was tested at a local hospital and found to be laced with fentanyl. This street-drug was found on a person recently admitted to the hospital. For statistics and resources on opioid addiction, please go to this website: <https://www.azdhs.gov/.../injury-.../opioid-prevention/index.php>



# Remembering Prince

- Died April 21, 2016
- Age 57
- Accidental opioid fentanyl overdose
- The music icon suffered from hip pain throughout his career



# Tom Petty

Death: accidental overdose  
Oct. 2, 2017



- He had taken several pain medications, including **Fentanyl, oxycodone and generic Xanax**. Other medications included generic Restoril (a sleep aid) and generic Celexa (which treats depression)
- The coroner's office listed Petty's official cause of death as "multisystem organ failure due to resuscitated cardiopulmonary arrest due to mixed drug toxicity."

# Medical Examiner: Los Angeles Angels Pitcher Tyler Skaggs Died From Deadly Mix Of Alcohol, Fentanyl, Oxycodone

Program: CBS 11 News Evening Categories: News, Local News, KTVTTV, Top Story

Medical Examiner: Los Angeles Angels Pitcher Tyler Skaggs Died From Deadly Mix Of Alcohol, Fentanyl, Oxycodone

1 minute left



10:05 75°



Sponsored by APS



**Need Assistance Paying Your We Can Help.**

Find programs and resources to help you pay the top of your bill. Don't wait...

**NEXT VIDEO**



Dorian Expected To Be "Dangerous" As It Heads...

**FOLLOW US**



# Fentanyl

- Teen use
- Teen sales
- Community impact

## Notre Dame Prep student arrested after student overdoses (laced with fentanyl)

azfamily.com News Staff  
Posted Feb 11, 2019 2



A 16-year-old Notre Dame Preparatory High School student was arrested for providing the drugs to another student.



Scottsdale police released information on Monday regarding an arrest involving a student at Notre Dame Preparatory High School who was allegedly distributing drugs.



**SCOTTSDALE, AZ (3TV/CBS 5)** -- Scottsdale police released information on Monday morning regarding a drug arrest involving a student at Notre Dame Preparatory High School.

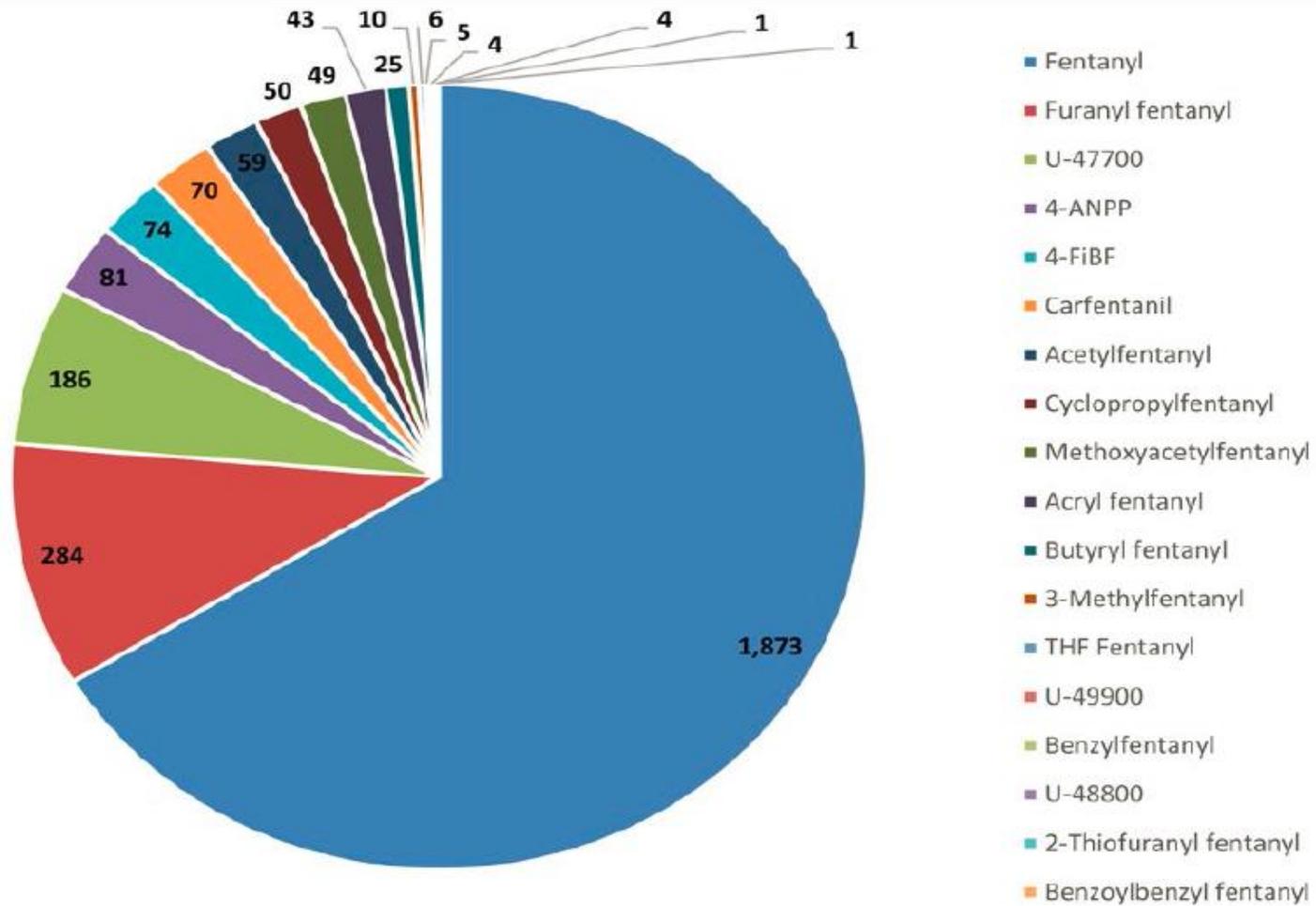
On Feb. 6, police responded to a medical call at a Scottsdale home. When officers arrived, they found a 17-year-old boy unconscious and unresponsive. Police determined his symptoms

### Most Popular

ARTICLES VIDEOS

- » Peoria firefighters facing 'comp explosion
- » Police: Father shot 2-year-old s shotgun during fight with boy's
- » [Kids design 3D crosswalk to fo slow down in school zones](#)
- » No prison time for school bus d admitted to raping 14-year-old !
- » Child left Maricopa daycare with daycare releases statement
- » Phoenix PD warns people 'to re after new 'stranger danger' inci
- » Petition calls for PA teacher's fi 'absolutely pathetic' on 2nd gra
- » Former Gilbert Fire and Rescu

**Figure 29. Identifications of Fentanyl, Fentanyl Related Substances, Fentanyl Precursors, and Other Synthetic Opioids, CY 2017.**



Source: DEA

# Fentanyl Related Substances

4-fluoroisobutyryl fentanyl

furanylfentanyl

acryl-fentanyl

acetyl-fentanyl

Carfentanil

3-methylfentanyl

other synthetic opioids such as U-47700

# Fentanyl

- Different molecules
- Hard to detect
  - In medical setting used in IVs
  - Street stuff – all forms, online recipes and potent
- Multiple doses of Narcan needed to revive
- Multiple forms of fentanyl
- Chemical warfare concerns

# Carfentanil

- **100 times stronger than fentanyl**
- Much stronger than heroin
- Carfentanil is used to sedate elephants
- It can be dangerous to even touch it without gloves
- More Narcan needed
  - 3-4 doses vs 1 dose for heroin
- In July, 2016 in Ohio, 176 overdoses in six days
  - currently 20 to 25 overdoses a day
- First Responders = more overdoses, more Narcan, more time spent on each call

# Carfentanil

- West Virginia – June 6, 2017
- What appears to be a Roxicodone pill... after analysis in lab turned out to be highly concentrated carfentanil
- The chemist advised that mere skin contact with the pill could prove fatal to anyone who does not have a high opioid tolerance



# Arizona reports first Carfentanil overdose death

Published April 17, 2018

- Arizona has recorded its first death involving an overdose of Carfentanil, a synthetic opioid that's 5,000 times more potent than heroin, and 100 times more powerful than fentanyl. The DEA announced the death on Monday, and said it occurred in 2017 and involved a 21-year-old male who was found dead in a car outside a Phoenix restaurant.

# 60 Minutes

- <https://www.cbsnews.com/news/deadly-fentanyl-bought-online-from-china-being-shipped-through-the-mail-60-minutes-2019-04-28/>

CBS News / CBS Evening News / CBS This Morning / 48 Hours / 60 Minutes / Sunday Morning



## 60 MINUTES

EPISODES · OVERTIME · TOPICS · THE TEAM

### DEADLY FENTANYL BOUGHT ONLINE FROM CHINA BEING SHIPPED THROUGH THE MAIL

*Fentanyl is 50 times more potent than heroin and is now available on the internet and can be delivered through the mail*

2019 APR 28 CORRESPONDENT SCOTT PELLEY

FACEBOOK TWITTER REDDIT FLIPBOARD



Fentanyl for sale online

12:40

## Officer Safety: Fentanyl Mixture Appears to be Cannabis

April 26, 2019

Volume 15, Number 6

The Ohio Attorney General's Office Bureau of Criminal Investigation (BCI) is notifying law enforcement of a potential officer safety issue related to a substance recently submitted to the BCI Athens office from the Lawrence County Drug Task Force and tested by the BCI London laboratory. The substance appeared to be Marijuana bud material, however, after testing, it was found to actually be a mixture of Tramadol, Heroin, and Fentanyl. There were also trace amounts of Methamphetamine included in the mixture. A substance similar in appearance has also been reported in Toledo, Ohio and Canada.



Source: Ohio BCI London Laboratory and the Lawrence County Drug Task Force



### About BCI CIU

The Criminal Intelligence Unit consists of Criminal Intelligence Analysts and a Criminal Intelligence Analyst Supervisor. Analysts are located in BCI London headquarters as well as regional offices in Youngstown, Bowling Green, and Richfield. The members receive and fulfill requests from BCI Agents and local, state, and federal law enforcement agencies and task forces. Our mission is to predict and suppress criminal activity in order to prevent, eliminate, or neutralize the activity.

# Fentanyl in the news...

---

NEWS

## Man dies after vaping liquid fentanyl

By Joshua Rhett Miller

July 3, 2017 | 3:21pm | Updated



Shutterstock

### MORE ON: **DRUG OVERDOSES**

Researchers: Fentanyl deaths up 122% in West Virginia

Herbal supplement linked to string of overdose deaths in US

Fentanyl is now a weapon of mass destruction: DHS

A man in Michigan died over the weekend after apparently using liquid fentanyl in a vaping device.

The victim, a 39-year-old Alpena man, could not be revived by medics who found him in a home in Maple Ridge Township on Saturday — when he and his wife manufactured the synthetic opioid into a vaping liquid after buying it online, [MLive.com reports](#).

The unidentified man passed out after taking a “number of hits” from the pipe and never regained

# Vaping 101

- Hit
- Rip
- Juul
- Phix
- Cloud
- #DI4J
- ENDS
- Dripping
- Mods
- Suorin
- Wax
- Dabs
- Goo
- #710
- Budder
- Concentrates
- Oil
- Shatter
- Juice
- Honey



# Popular Vaping Devices among Teens

Current generation of e-cigarettes



JUUL



Suorin Drop



myblu™

# Concerns/Thoughts

- Many teens do not believe e-cigs contain nicotine
- Many believe it is just flavoring
- Early e-cigarette use and nicotine addiction can harm brain development and increase the risk of young people smoking cigarettes
- Severe lung disease
- Vaping vs Aerosols

# 4 main chemicals

1. Water
2. Flavor
3. Nicotine
4. PG – Propylene Glycol

# Electronic Nicotine Delivery Systems (ENDS)

- Vaporizers, vape pens, hookah pens, electronic cigarettes, e-pipes, mods, juuls, etc.



# E-cigarettes

- According to the FDA, electronic cigarettes are **battery-operated devices** that turn **nicotine or other chemicals into a vapor** that is inhaled by the user
- Use on the rise among teens
- Easy to conceal other drug use
- Liquid nicotine = potential hazard
- “Vaping” or using “Dabs”
- Vaping Pens...

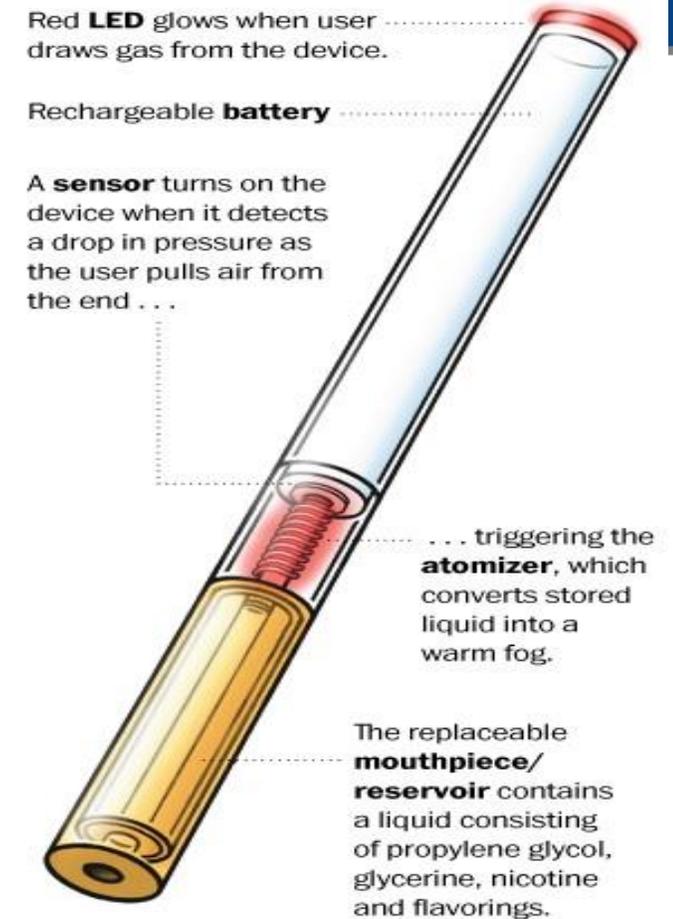
## The electronic cigarette

It may look like a cigarette and deliver a dose of nicotine, but that's where the similarity ends.

Red **LED** glows when user draws gas from the device.

Rechargeable **battery**

A **sensor** turns on the device when it detects a drop in pressure as the user pulls air from the end . . .



. . . triggering the **atomizer**, which converts stored liquid into a warm fog.

The replaceable **mouthpiece/reservoir** contains a liquid consisting of propylene glycol, glycerine, nicotine and flavorings.

An FDA study found that e-cigarettes release carcinogens and toxic chemicals. However, they might be safer than regular cigarettes because they don't release tar, carbon monoxide, hydrogen cyanide and other poisons found in cigarette smoke.

Sources: Tobacco Control, FDA

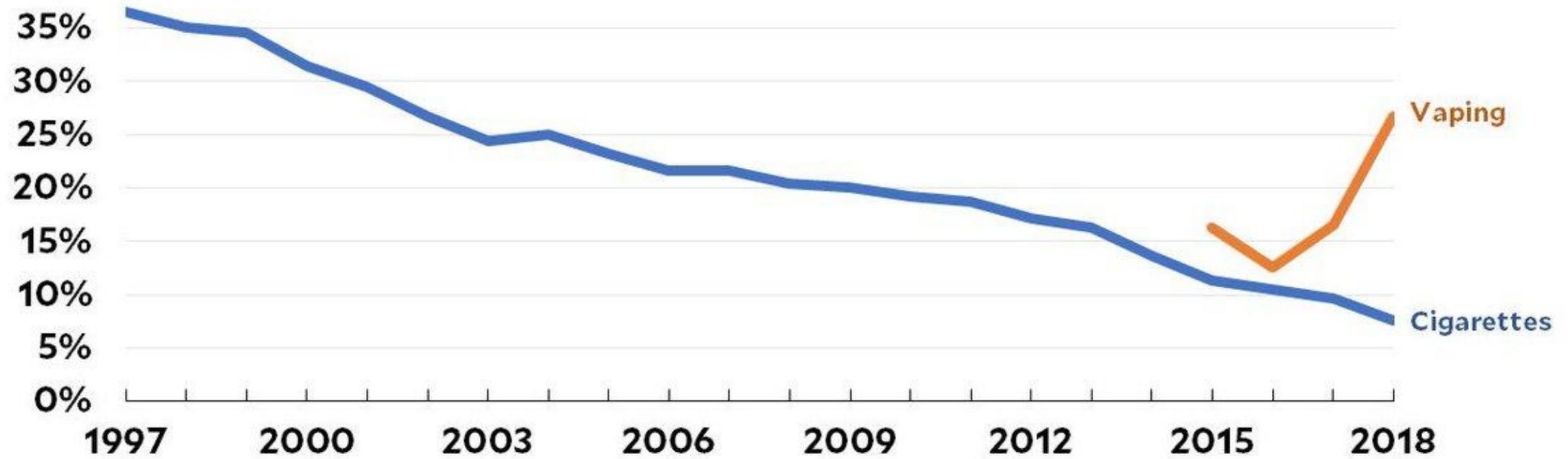
PATTERSON CLARK/THE WASHINGTON POST

# What is in e-cigarette aerosol?

- The e-cig aerosol that users breathe from the device and exhale contains harmful substances, including:
  - **Nicotine**
  - Ultrafine particles that can be inhaled deep into the lungs
  - **Flavoring such as diacetyl, a chemical linked to a serious lung disease**
  - Volatile organic compounds (VOCs)
  - **Cancer-causing chemicals**
  - Heavy metals such as nickel, tin, and lead

# Trends in Vaping and Cigarette Use

## 12th Graders



Source: "National Adolescent Drug Trends in 2018"

Mother Jones

# *The Mysterious Vaping Illness That's 'Becoming an Epidemic'*

A surge of severe lung ailments has baffled doctors and public health experts.



An X-ray of a patient with a vaping habit, showing lung damage — densities or whitish cloud-like areas typically associated with some pneumonias, fluid in the lungs or inflammation. Intermountain Healthcare

## 2018 National Youth Tobacco Survey from FDA and CDC

- JUUL, accounted for **76%** of the e-cigarette market at the end of 2018
- E-cigarette use among middle schoolers **increased by 48%** and **increased by 78%** among high schoolers in just one year

CBS NEWS / August 28, 2019, 6:38 PM

## Juul CEO tells CBS News: "I don't want my kids using the product"

f Share /  Tweet /  Reddit /  Flipboard /  Email



# *Illinois Patient's Death May Be First in US Tied to Vaping*

By The Associated Press

Aug. 23, 2019

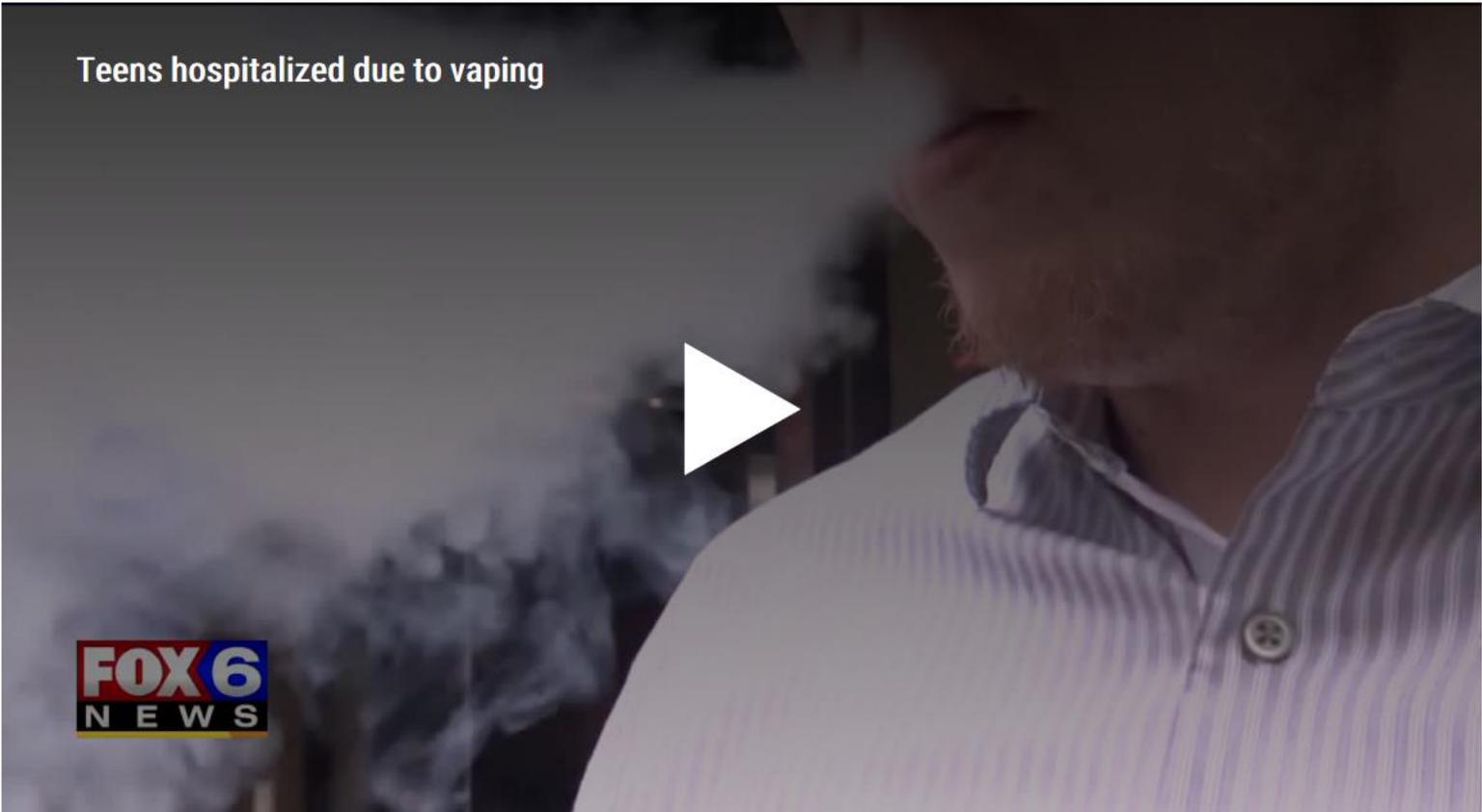


CHICAGO — Health officials said Friday that an Illinois patient who contracted a serious lung disease after vaping has died and that they consider it the first death in the United States linked to the smoking alternative that has become popular with teens and young adults.

# 8 Wisconsin teens hospitalized with seriously damaged lungs after vaping, officials say



POSTED 9:23 PM, JULY 29, 2019, BY TRIBUNE MEDIA WIRE



Ad closed b

Stop seein

Why this

Ad closed b

Stop seein

Why this

# 225 people in 25 states w severe respiratory illnesses

(since June, 2019)

- Many have been hospitalized, some with lingering lung problems that required use of a ventilator or extensive monitoring in intensive care units

## *Don't Use Bootleg or Street Vaping Products, C.D.C. Warns*

With more than 200 cases of respiratory illnesses possibly related to vaping, and no single culprit, public health experts are advising young people not to buy cannabis and other e-cigarette products off the street.



# A 7th person has died from vaping-related causes. The CDC is stepping up its probe of e-cigarette illnesses

By Chuck Johnston and [Hollie Silverman](#), CNN

Updated 4:19 PM ET, Tue September 17, 2019



- Approaching 500 cases since June
- People of all ages affected
- Severe lung damage

NATION

---

# US vaping illnesses top 500, Missouri man is 8th death

By MIKE STOBBE AP Medical Writer 41 min ago  0

---

VAPING

# 2nd vaping-related death in Kansas brings national death toll to 9

Another person has died and the CDC says 530 have fallen ill in the U.S. from a severe respiratory illness linked to vaping.

Sept. 23, 2019, 3:41 PM MST

By Erika Edwards

JIMMY SMITS — CAITLIN MCGEE

# Ruby Johnson

## Piper's Story

- 18 year old Piper being driven to college in CO by mom when she began experiencing burning chest pains
- Stopped at an urgent care
- Couldn't breathe, given 2-35 liters of oxygen
- Ended up in ICU for a week
- Had they waited one more day, she'd be unresponsive or put on a ventilator (according to doctors)

# Mysterious and life-threatening vaping-related illnesses

(summer, 2019)

- Patients, otherwise healthy and in their late teens and 20s
- Severe shortness of breath, often after suffering for several days with vomiting, fever and fatigue
- Some have wound up in ICU or on a ventilator for weeks
- Treatment has been complicated by patients' lack of knowledge
  - and sometimes outright denial about the actual substances they might have used or inhaled

# Oils and Damage...

- Nicotine or THC, the high-inducing chemical in marijuana, is mixed with solvents that dissolve and deliver the drugs
- **The solvents, or oils, heat up during aerosolization to become vapor**
- Oil droplets may be left over as the liquid cools back down
  - **inhaling those drops may cause breathing problems and lung inflammation**

# Oil in lungs extremely dangerous

- “Inhaling oil into your lungs is extremely dangerous behavior that could result in death,” said Thomas Eissenberg, who studies vaping at Virginia Commonwealth University
- The most seriously ill patients have had extensive lung damage that required treatment with oxygen and days on a ventilator
  - Some are expected to have permanent lung damage

# Vaping Vs Aerosols

## HEALTH & WELLNESS

How teens are hiding their vaping habits in plain sight

The CDC has activated its Emergency Operations Center to investigate illnesses linked to vaping that claimed the lives of seven people. NBC's Vicky Nguyen takes a closer look at the vaping devices and why their many forms make them easy to mask the habit.

Sept. 17, 2019

SHARE THIS –    

- <https://www.today.com/video/how-teens-are-hiding-their-vaping-habits-in-plain-sight-69131333600>
- Sept 17, 2019

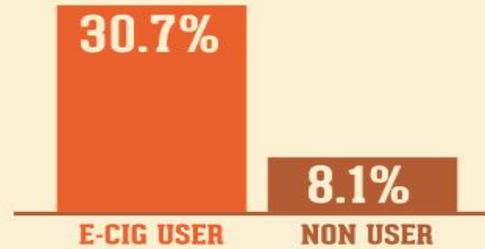


**In 2019**

- **Currently 5 million teens vaping**
- **Up from 3.6 million in 2018**

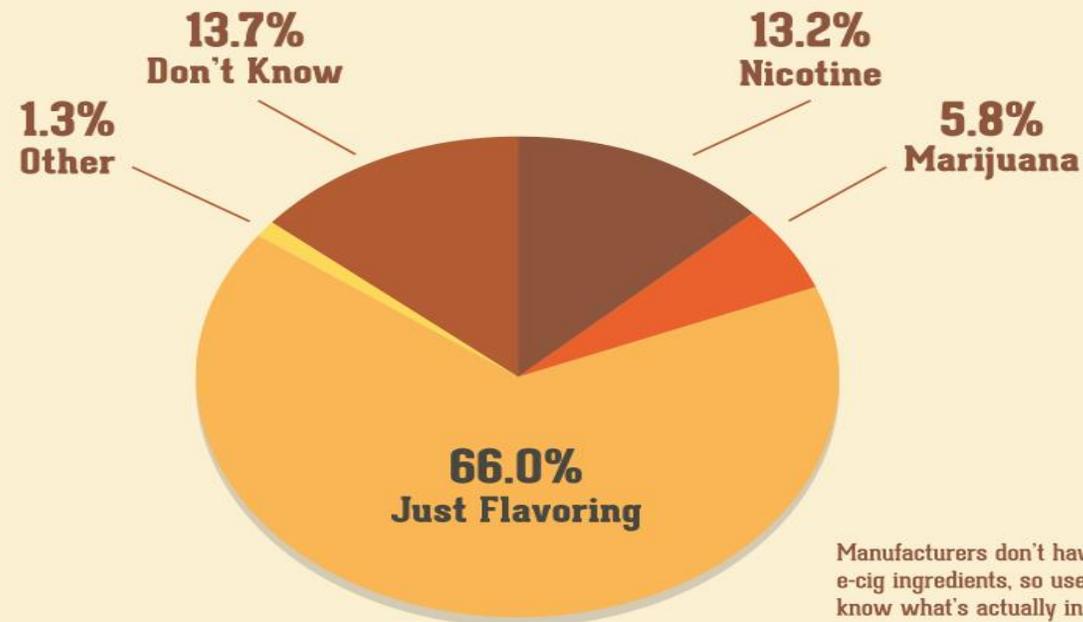
## TEEN E-CIG USERS ARE MORE LIKELY TO START SMOKING.\*<sup>2</sup>

### Start Smoking Within 6 Months



\*Includes combustible tobacco products [cigarettes, cigars, and hookahs]

## WHAT DO TEENS SAY IS IN THEIR E-CIG?<sup>3</sup>



Manufacturers don't have to report e-cig ingredients, so users don't know what's actually in them.

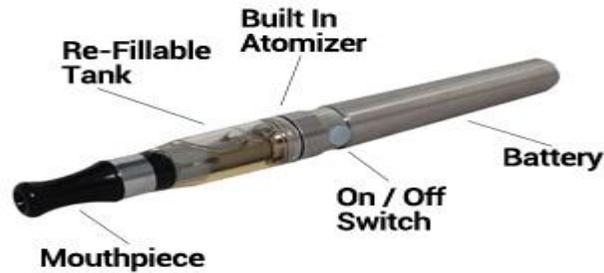
# What does it look like?



Vaping pens



Cartridge Style E-Cigarette



Re-Fillable Tank Style E-Cigarette

Regular Cigarettes, Electronic Cigarettes, Vaporizer Pens

# **Feds crack down on e-liquid packaging that looks like candy, juice boxes**

**May 1, 2018**

Federal regulators warned 13 companies that the way they market liquids used in cigarettes could entice dangerous ingestion by small children. (U.S. Food and Drug Administration)

# Warning

- Endangering children by **marketing e-cig liquids to resemble kid-friendly products**... juice boxes, candy and whipped cream
- Packaging of the products — some cartoonlike images — could **mislead children** into thinking toxic liquids are ok to eat and drink



E-liquid



Food product



E-liquid



Food product



E-liquid



Food product



E-liquid



Food product

M I L W A U K E E  
**JOURNAL SENTINEL**

**“JUULing is the New Teen Vaping Fad Taking Over School Bathrooms”**

*The New York Times*

**“‘I Can’t Stop’: Schools Struggle With Vaping Explosion”**

THE WALL STREET JOURNAL.

**“Schools and Parents Fight a Juul E-Cigarette Epidemic”**

**CNN**

**“Vaping Now An Epidemic Among US High Schoolers”**

TobaccoFreeKids.org



JUUL

VAPORIZED

JUUL



JUUL

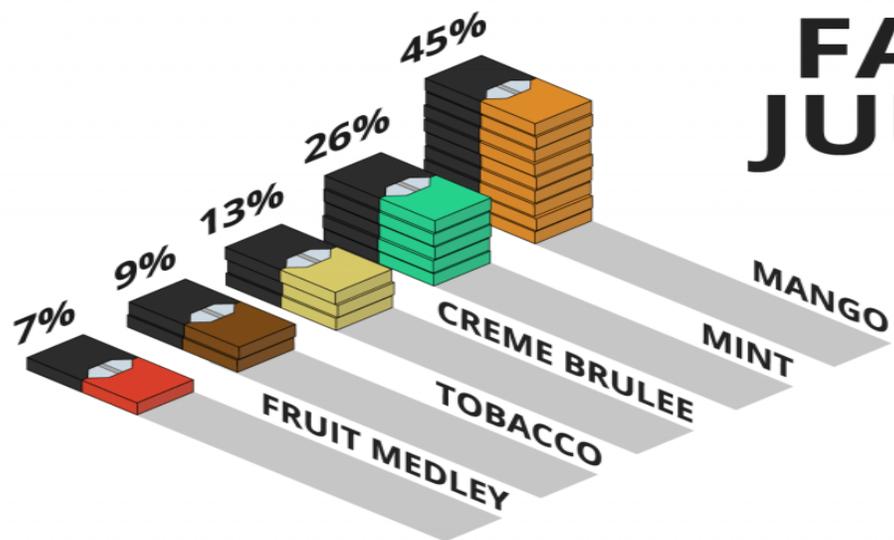
VAPORIZED

JUUL



VAPING360

# FAVORITE JUUL PODS POLL



\*NOTE: The poll was done on vaping360.com and the results reflect more than 1000 votes.  
All images, artwork, text and graphics are the property of Vaping360. All rights reserved.



## Behind the JUUL

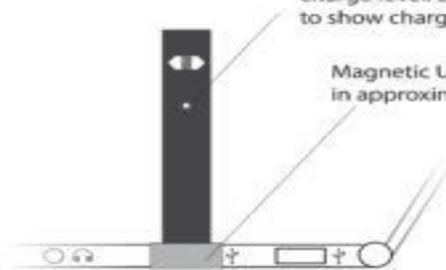
The information below offers a description of the parts of a JUUL.

JUULpod: Contains flavored nicotine liquid, equal to approximately one pack of cigarettes. Functions as mouthpiece.

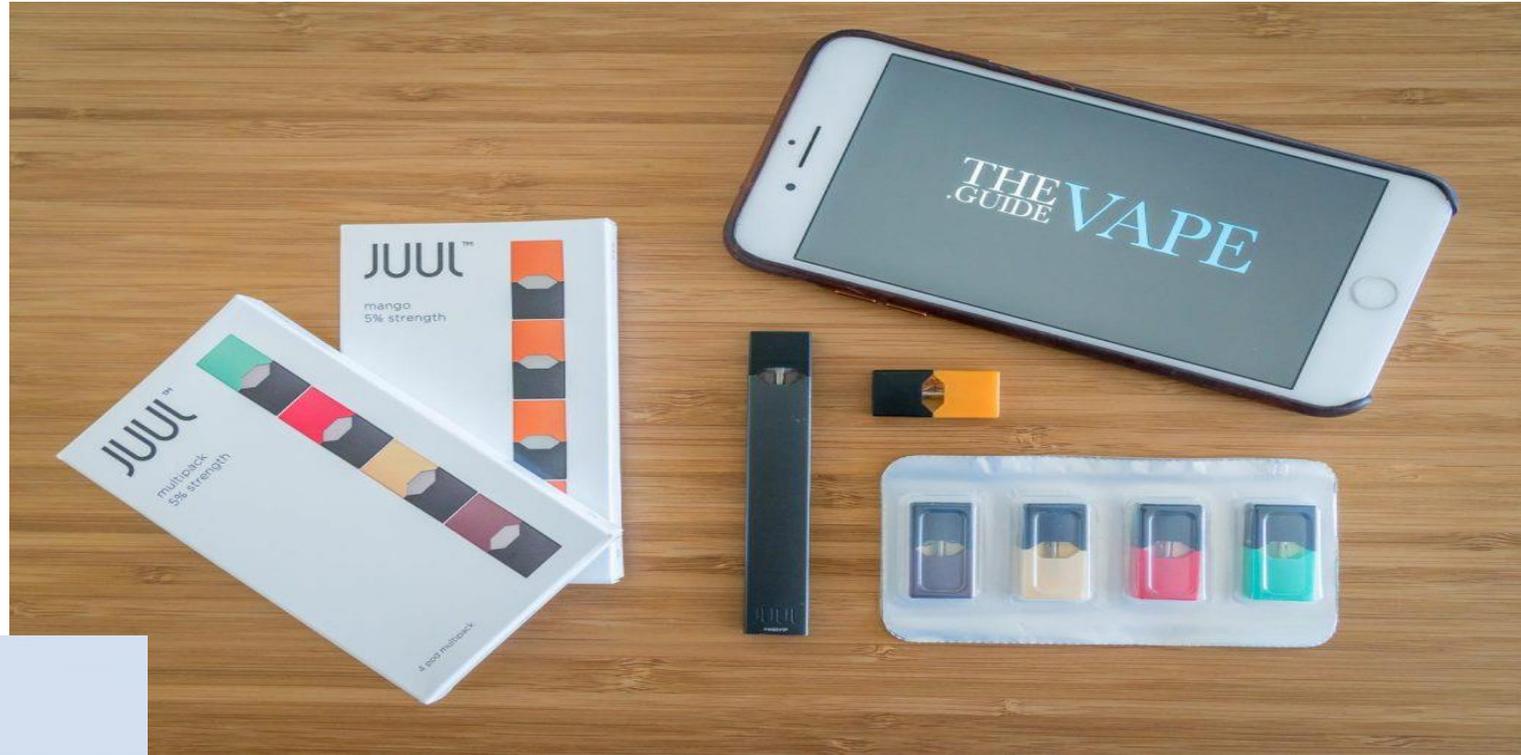


Circular Indicator: Glows to reflect charge level. Double tap on device to show charge level.

Magnetic USB: Fully charges JUUL in approximately one hour.



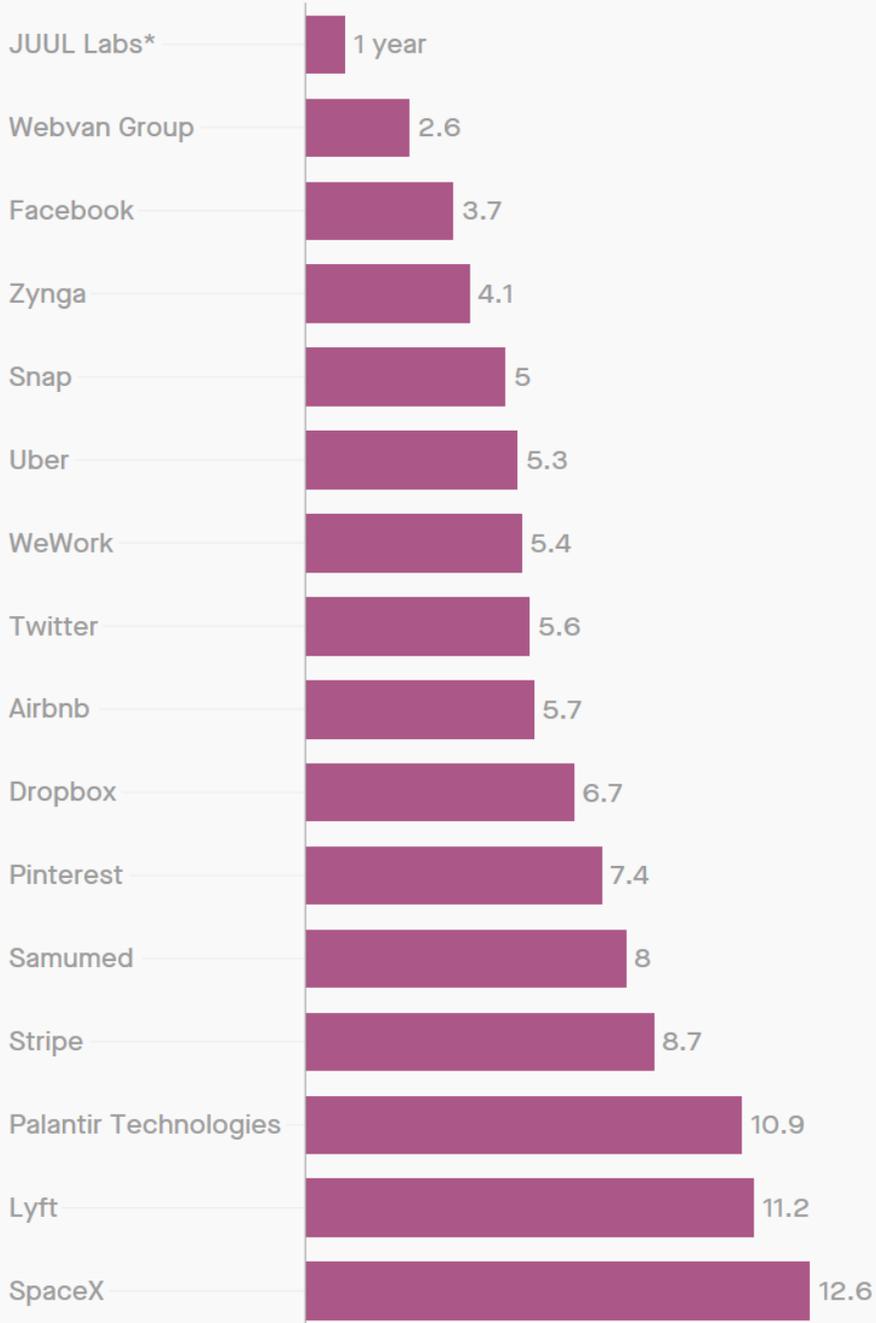
# Juul – The iPhone of e-cigs



# The 2018 National Youth Tobacco Survey from the Food and Drug Administration and the Centers for Disease Control and Prevention

- JUUL, accounted for [76% of the e-cigarette market](#) at the end of 2018
- E-cigarette use among middle schoolers increased by 48% and increased by 78% among high schoolers in just one year
- Frequency of use among current high school e-cigarette users surged, with nearly 28 percent vaping more than 20 times per month

Years required for startups to raise first \$10 billion+ venture round



# JUUL Worth Billions... Fast!

---



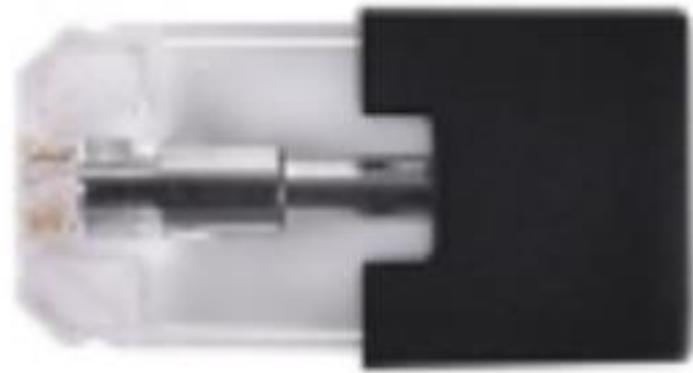


## Newest Juul compatible Pod System Vape Battery Match Box

- ▶ Model name: Match Box
- ▶ Size: 54.0\*29.5\*8.5 mm
- ▶ Pen Battery Power: 250 mAh
- ▶ Material: Aluminum
- ▶ Color: Black, silver, blue, red or custom
- ▶ Rechargeable: Micro USB charger
- ▶ Fit for Juul pods
- ▶ Variable Voltage: 3.4V-3.7V-4.2V
- ▶ Warranty: 6 months
- ▶ OEM / ODM: Welcomed

 **Contact Now**





# JUUL Alternatives: Top 4 JUUL-like Vapes



JUUL is the most popular e-cigarette on the market, but is it the [best e-cigarette on the market](#)? Many people seem to think so, but there is a good chance that they have never tried any of the following JUUL-like vapes.

Some of these vapes are similar to JUUL and have the same strengths—like its portability and accessibility. But none of its weaknesses—like its use of a proprietary charger, the expensive non-refillable JUUL pods, and the intensely strong vaping experience.

So, if you don't want to follow the crowd, try out any one of these JUUL alternatives.

## Top 4 JUUL-like vapes

1

[KandyPens Rubi](#)

2

[Myblu E-cigarette](#)

## KandyPens Rubi



The [KandyPens Rubi](#) is the JUUL's top competitor because it has the portability and convenience of the JUUL, but it allows you to use any type of e-liquid you want. You can even use oil concentrates.

What this means is that the Rubi is one of the most versatile e-cigarettes available. And one of the best. You can take a look at the [Rubi vs JUUL comparison](#) for a closer look at how these

two e-cigs stack up against each other.

The Rubi is more cost effective, and more versatile than the JUUL, and some would even say it's a better device overall.

**\$49.95 from KandyPens**

TVG25 for 25% off

[Buy Now](#)

## Myblu E-cigarette



The [myblu e-cigarette](#) also uses pre-filled pods like the JUUL, but they are much cheaper, at just \$10 per package. Those pods are available in a wide array of flavors and in different nicotine levels, so they offer an impressive level of variety, unlike JUUL.

As for the myblu e-cig itself, it is highly affordable, has a nice rounded, stealthy design, and is as easy to use as you would expect for an e-cigarette. However, the amount of vapor it produces is anything but stealthy, so if big clouds are your thing, then the myblu should also be your thing.

**\$19 from Myblu**

[Buy Now](#)

## KandyPens Feather



The [Feather](#) is the other e-cigarette from KandyPens, and while the Rubi is a general audience device, the Feather is more of a niche vape because it specializes in using nicotine salts.

While nic salts are its forte, the Feather can also use regular e-liquids, so it has a pretty wide appeal.

The unique design of the Feather is its other standout feature, it looks nothing like any other e-cig out there, though it is as portable, convenient, and easy to use as the other e-cigs out there. If you like nic salts, but find the JUUL pods too strong, then give the Feather a try so that you can use whatever nic salts you want.

**\$29.95 from KandyPens**

TVG25 for 25% off

[Buy Now](#)

## VapeDynamics Cora



The [Cora](#) is one of the more versatile e-cigs on the market because it can use both e-liquids and oil extracts.

There are some small downsides to the Cora, one is that the filler holes are smaller than average and require the use of the custom dropper included in the package. The other drawback is that you need to hold down the power button while you inhale, whereas all the other e-cigs are draw activated.

Even with those imperfections, the Cora is one of the better JUUL alternatives because of its dual-use nature and the freedom to use whatever e-liquid you want.

**\$39.99 from VapeDynamics**

TVG10 for 10% off

[Buy Now](#)



## Xvape XLUX Vixen Lipstick Wax Vaporizer Kit

by XVAPE

☆☆☆☆☆ No reviews

Save 20% ~~\$ 99.99~~ \$ 79.99

The XLUX Vixen is the newest addition to the Xvape family. This is the first wax vape pen designed primarily with women in mind. The Vixen is compact and is built to look like a nice lip stick container for extremely covert carrying and usage. The kit comes with a Dual Quartz Titanium coil pre-installed, as well as a Ceramic Plate coil in the box. The Vixen is powered by a built-in 900mAh battery that uses micro USB charging. There are 3 different temperature settings to allow you to find the perfect match. This amazing design, coupled with Xvape's legendary build quality, makes the Vixen the perfect choice for those who value discretion.

### Features:

- Discreet Design
- Dual Quartz and Ceramic Plate Coil Options
- 3 Temperature Settings

### Specifications:

- Battery Capacity: 900mAh
- Charge Type: Micro USB
- On/Off: Click Button 5 Times
- Low Voltage Warning: Light Flashes 10 Times
- Short Warning: Red Light Will Flash 3 Times
- Colors: Black, Pink

### In The Box:

- 1 XLUX Vixen Vape Pen
- 1 Dual Quartz Titanium Coil (Pre-Installed)
- 1 Ceramic Disc Coil
- 1 Screw Top Plastic Container With Silicone Liner
- 1 Tool
- 1 Micro USB Charging Cord

Replacement [Coils](#) are available.



# Dangerous Product for Youth

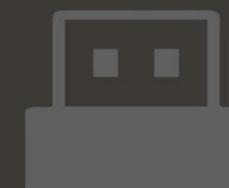
- Over 7,000 fun flavors
  - Cotton candy, gummi bear, strawberry
- Devices look like pens, USB drives, phone chargers, etc.
- One juul pod of nicotine = entire pack of cigarettes
- #doit4juul
- #DI4J
- <https://www.instagram.com/p/BfwV6IEh1pC/>
- <https://www.instagram.com/p/BfwV6IEh1pC/>

**63%**

**OF JUUL USERS  
DON'T KNOW THAT  
THE PRODUCT  
ALWAYS CONTAINS  
NICOTINE.**



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



# Who is Altria?

- **Tobacco Giant - Altria Made a \$12.8 Billion Investment in Juul**
- With a \$12.8 billion investment, Altria, the nation's leading tobacco company, now owns **35% of Juul Labs**, maker of the country's most popular e-cigarette
  - Juul now valued at \$38 Billion

# Philip Morris and Marlboro

- PM is Largest tobacco company in the US and more than 150 years old
- Altria invested \$1.8 billion into Canadian cannabis company, Cronos Group (45% stake)



# JUULpod

**\$15.99** per 4-pack

FREE SHIPPING\*

Each pack contains 4 pods. Each JUULpod contains 0.7mL with 5% nicotine by weight, approximately equivalent to 1 pack of cigarettes or 200 puffs.



virginia  
tobacco

QTY



cool  
mint

QTY



fruit  
medley

QTY



creme  
brulee

QTY



mango

GET NOTIFIED



**NEW FLAVOR**  
**CLASSIC MENTHOL**



# JUUL "Juuling" #JUULVAPOR



VAPING CHEAP .COM

# JUUL



**JUUL Starter Kit \$37.49**



# Phix Vape Kit



- The ultra-portable revolution is in full swing, and the pod based Phix system by **Major League Vapers** makes a good case for why it should be your ultra-portable of choice!

# Phix vs. Juul

- Phix
- 6 flavors
- 5% nicotine content
- One pod = 400-450 puffs
- Easy to use
- Discreet



**VS**



- Juul
- 8 flavors
- 5% nicotine content
- One pod = 200 puffs
- Easy to use
- Discreet
- Cheaper



# suorin

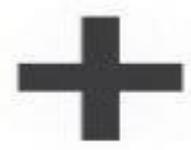


**suorin**AIR  
"SMALLER THAN A CREDIT CARD"  
2ML OPEN-POD SYSTEM  
MICRO-USB CHARGING

NC.



**ANY**  
30 ml Bottle



AVAILABLE IN  
**25 mg**  
**50 mg**



**\$30**

# Suorin Air Vape Kit - V2

\$29.99

★★★★★ (1 review) [Write a Review](#)

SKU:

SUORIN-A17ABE26

Weight:

6.00 Ounces

Shipping:

Free Shipping



---

Colors: Required

- Black
- Silver
- Navy Blue

# Suorin Air



# NIC SALT

VS

# FREE BASE

Contains benzoic acid

Faster absorption

Low to super high strength options

Satisfying in high concentrations

Less flavor complexity

Less cloud production

Ideal for smokers and MTL vapers

More expensive

No additive

Slower absorption

Low to medium strength options

Harsh in high concentrations

More flavor complexity

More cloud production

Suitable for most vaping styles

Less expensive



# What are Nicotine Salts?

---

Nicotine Salt, also known as **Nic Salt**, is a type of processed nicotine used in vape juice. Many vapers find nicotine salts more satisfying than regular "freebase" nicotine.

Nicotine Salts | [vaping.com](https://vaping.com)  
[vaping.com](https://vaping.com)

Nicotine salt is the form of nicotine found in **tobacco leaves**. Unlike the nicotine ordinarily used in e-juice, these salts aren't **just nicotine**; they're compounds containing nicotine and another organic component.



**Blue Slushee**  
Propaganda Salts

★★★★★ 11 REVIEWS

\$19.99



**Blue Razz Salts 30ml**  
Air Factory

★★★★★ 3 REVIEWS

\$15.99



**Limited Edition Mint Salts 30ml**  
Air Factory

★★★★☆ 1 REVIEW

\$15.99



**Fresh Pressed Lava Luau Salts 60ml**  
California Grown

★★★★★ 1 REVIEW

\$13.99



**Sweet Mint Salt 30ml**  
The Milkman

★★★★★ 1 REVIEW

\$13.95



**I Love Salts Blue Raspberry**  
Mad Hatter Juice

★★★★★ 1 REVIEW

\$17.99



**Strawberry Watermelon Bubblegum on Salt 30ml**  
Candy King

★★★★★ 1 REVIEW

\$14.99



**Pink Punch Lemonade Salts (2 x 30ml)**  
TWST

★★★★☆ 2 REVIEWS

\$21.99



**Melon Lush Salts 30ml**  
Air Factory

★★★★★ 3 REVIEWS

\$15.99



**Fresh Pressed Fruit Finale Salts 60ml**  
California Grown

★★★★★ 1 REVIEW

\$13.99



**Illuminati**  
Propaganda Salts

★★★★★ 4 REVIEWS

\$19.99



**Cookie Butter Salts 30ml**  
Propaganda Salts

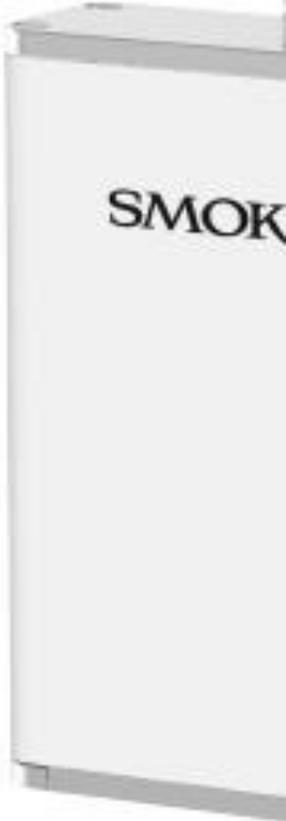
★★★★★ 5 REVIEWS

\$19.99

## Mods “Modding”

---

- They have more features than regular e-cigarettes, customizable options, long battery life, and most importantly, they produce more vapor
- “Modifying” them to accommodate larger batteries and higher resistance atomizers, and better cartridges and tanks



# More Mods

---



# Modification...

CRT



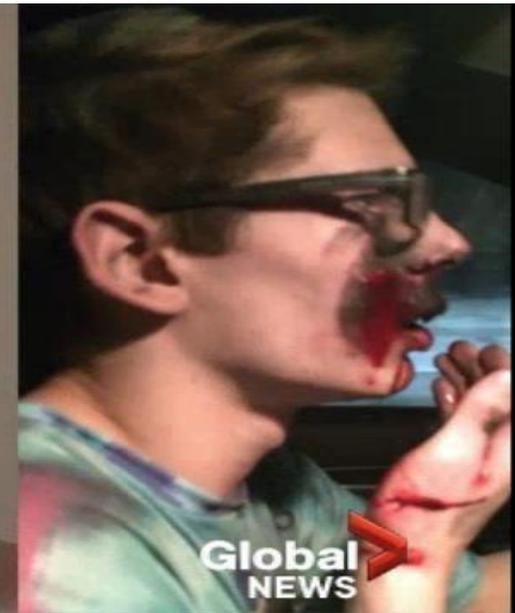
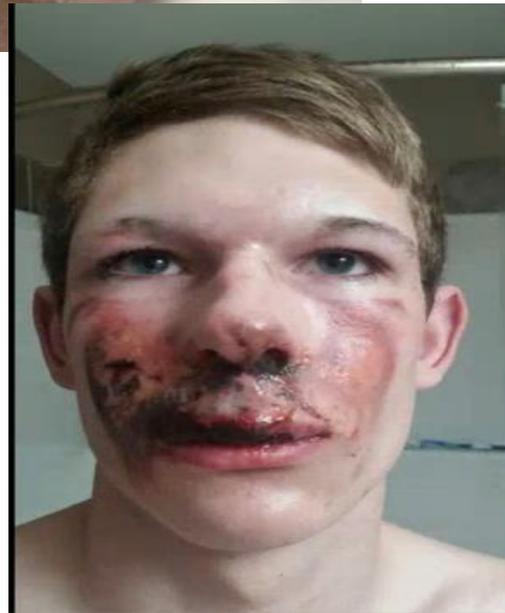
CHEAPVAPING.DEALS



# E-cig explosions



16 year old teen suffers 2<sup>nd</sup> degree burns to face



# Teens and Vape explosions



INC.  
RE



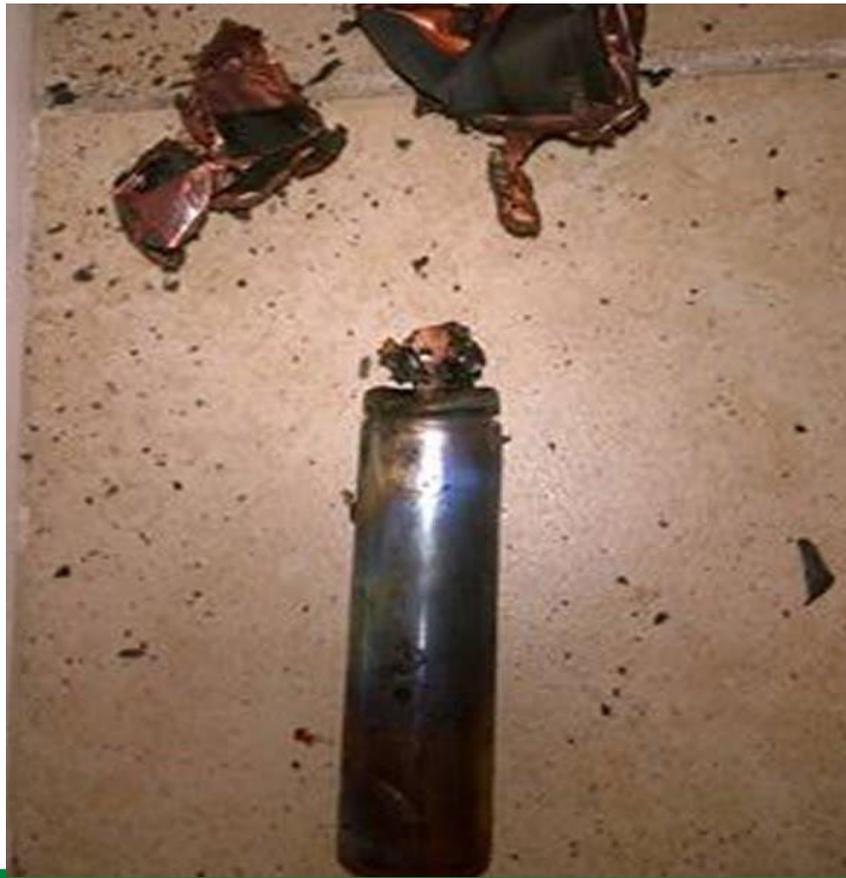
This is it I got stitches and wires on my bottom jaw



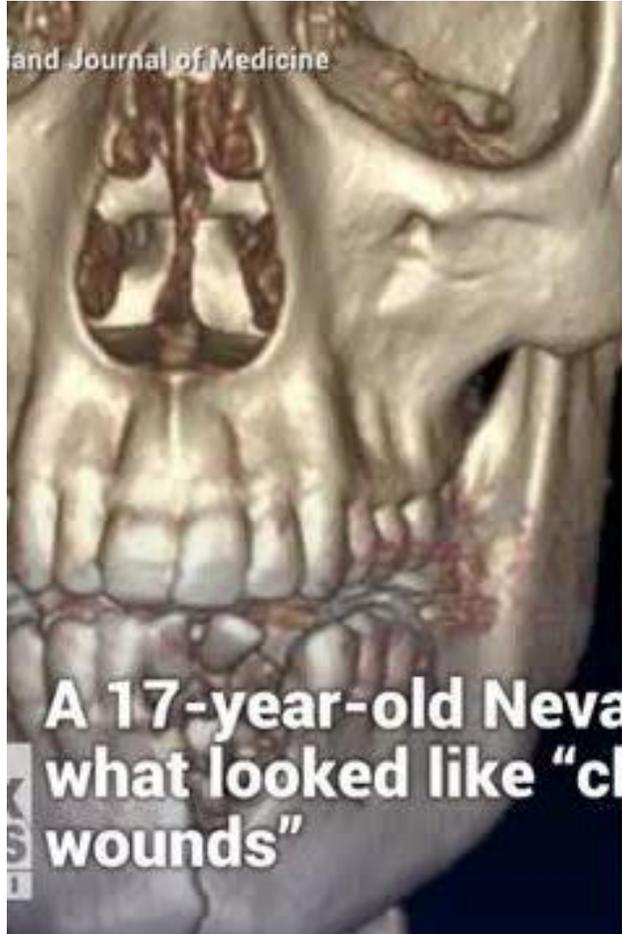


Man loses 7 teeth  
after vaping  
explosion

Man loses part of  
tongue after  
vaping explosion



# Another Vaping Danger: E-Cigarette Explodes in Teen's Face



**A 17-year-old Nevada teen was left with what looked like "close-range gunshot wounds"**



THURSDAY, June 20, 2019 -- A vape pen exploded in the face of 17-year-old Nevada boy, breaking his jaw and requiring multiple surgeries to repair the damage, according to a case report in the latest *New England Journal of Medicine*.

The 2018 incident highlights a little-known danger of e-cigarettes -- the devices can unexpectedly blow up, causing burns and severe facial damage.

"He was [using] this vape pen, and it blew up in his face while he was [using] it," said one of the doctors who treated him, Dr. Katie Russell, a pediatric surgeon at the University of Utah in Salt Lake City.

The e-cigarette blast was strong enough to break bones and

ADVERTISEMENT

Ad closed by Google

Stop seeing this ad

Why this ad? ▶

# E-cig Explosions

- [E-Cig Blows up in Man's Pocket](#)
- [E-cig lodges into ceiling after blowing up in man's hand](#)



# Burned Florida Man Was Killed by Exploding Vape Pen

By [James Tennent](#) On 5/17/18 at 8:18 AM

- A man in Florida **died when his vape pen exploded, firing two pieces of the device into his head before his house set on fire, leaving his body heavily burned**, (medical examiners report has said)
- The death is thought to be the 1st in the U.S. directly related to the use of one of the popular devices
- Individual died from a **“projectile wound of head”** and 80 percent of his body suffered burns in the subsequent fire
- The device was manufactured by Smok-E Mountain, with *The New York Times* reporting that the company’s logo appeared on one of the object found in D’Elia’s cranium

# A man dies after his e-cigarette explodes in his face



By **David Williams, CNN**

Updated 11:06 AM ET, Tue February 5, 2019



Authorities say William Brown died after the e-cigarette he was using exploded.

### More from CNN



Woman's body found bound in a suitcase on the side of a...



US arms sold to Saudi Arabia and UAE end up in wrong hands



### Don't be relevant. Be hyper-relevant.

Sustainable growth comes from adapting to the evolving needs of customers, at speed and at scale. Learn how to become a [Living Business](#).



By using this site, you agree to our updated [Privacy Policy](#) and our [Terms of Use](#).



Type here to search



5:11 PM  
2/11/2019



NEWS

# MAN PUT INTO MEDICALLY-INDUCED COMA AFTER USING 'STREET' VAPE CONTAINING THC: 'WE'RE UNCERTAIN RIGHT NOW IF HE'LL EVER FULLY RECOVER'

BY **BRENDAN COLE** ON 7/26/19 AT 5:39 AM EDT



FE



A  
B



# 5 Tips to help avoid vape battery explosions

## 1. Consider using vapes with safety features

such as firing button locks, vent holes, and protection against overcharging.



## 2. Keep your vape covered.

Don't let it come into contact with coins or loose batteries in your pocket.

## 3. Never charge your vape with a phone or tablet charger.

Always use the charger that came with it.

## 4. Don't charge your vape overnight

or leave it charging unattended.

## 5. Replace the batteries if they get damaged or wet.

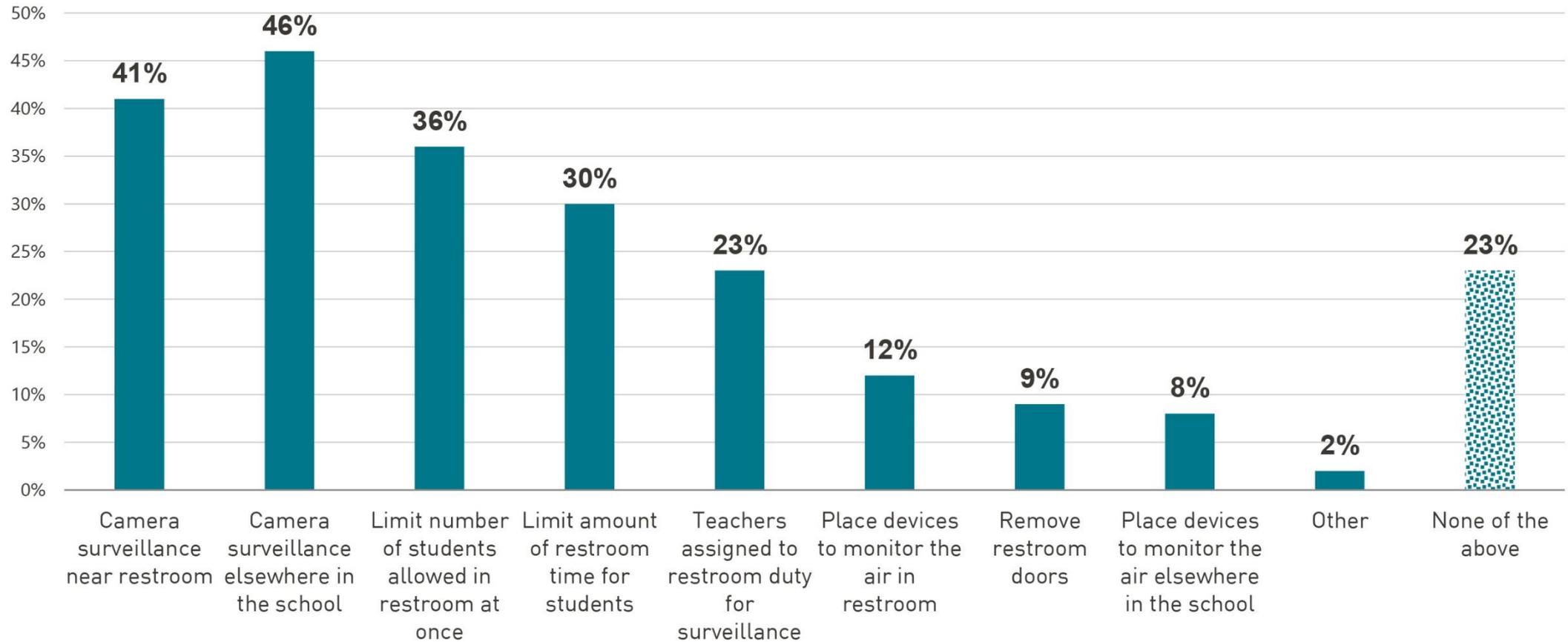
If your vape gets damaged and the batteries are not replaceable, contact the manufacturer.

# Electronic Cigarettes and Liquid Nicotine Exposures - AAPCC

Year	Number of Cases
2011	271
2012	460
2013	1,543
2014	4,024
2015	3,774
2016	2,886
2017	2,450
2018	3,146
2019 (thru Aug)	2,961

More than half of these reported exposures have occurred in young children under the age of 6

# What have schools done about e-cigarettes?





## What do we really know about vaping?

- E-cigs safer?
- Medical marijuana?
- Too soon to know
- Inhaling oil and getting oil into your lungs is what is causing some of the lung injuries we see

# Warning – Which is Which?





Wax, Dabs, Goo, Honey,  
Shatter, Budder, BHO

## Fast Fact:

Not all CBD vape products are created equally. You have to choose your oil, cartridges, and brands very carefully.



# CBD Vape Pens



## Best CBD Vape Pen 650 mAh

- ▶ Model name: Tube CBD Vape Pen
- ▶ Size: 10.5\*130 mm (D\*L)
- ▶ Cartridge Volume: 1 ML
- ▶ Resistance: 1.4ohm
- ▶ Oil hole Size: 4\*2.0mm
- ▶ Pen Battery Power: 650 mAh
- ▶ Material: Pyrex Glass + stainless steel+ Ceramic
- ▶ Heating Element: Vertical Ceramic Core
- ▶ Mouthpiece: Ceramic round
- ▶ Suit for: CBD Thick oil
- ▶ Color: Black, white, blue, red, blue or custom
- ▶ Custom: OEM / ODM Welcomed





# Butane Honey Oil (BHO)

## Dabs, Wax, Budder, Shatter

- Similar to oils, but **more concentrated**; thus greater high
- Cooked like meth; acts like meth: **psychotic breaks**
- **Passing butane through a tube packed with marijuana**
- Leaves extracted resin behind as a sticky, thick oil-like substance
- Risk of explosion
- **Up to 90% THC**



# THC Potency

- 1960-1990s – 2-3% THC (leafy green)
- Today the oil or concentrate can be anywhere from **70-90% pure**
- Quicker high



# THC

- **Tetrahydrocannabinol**
- Psychoactive ingredient in marijuana (**high**)
- Can cause paranoia or anxiety
- Mind altering
- Induce sleepiness



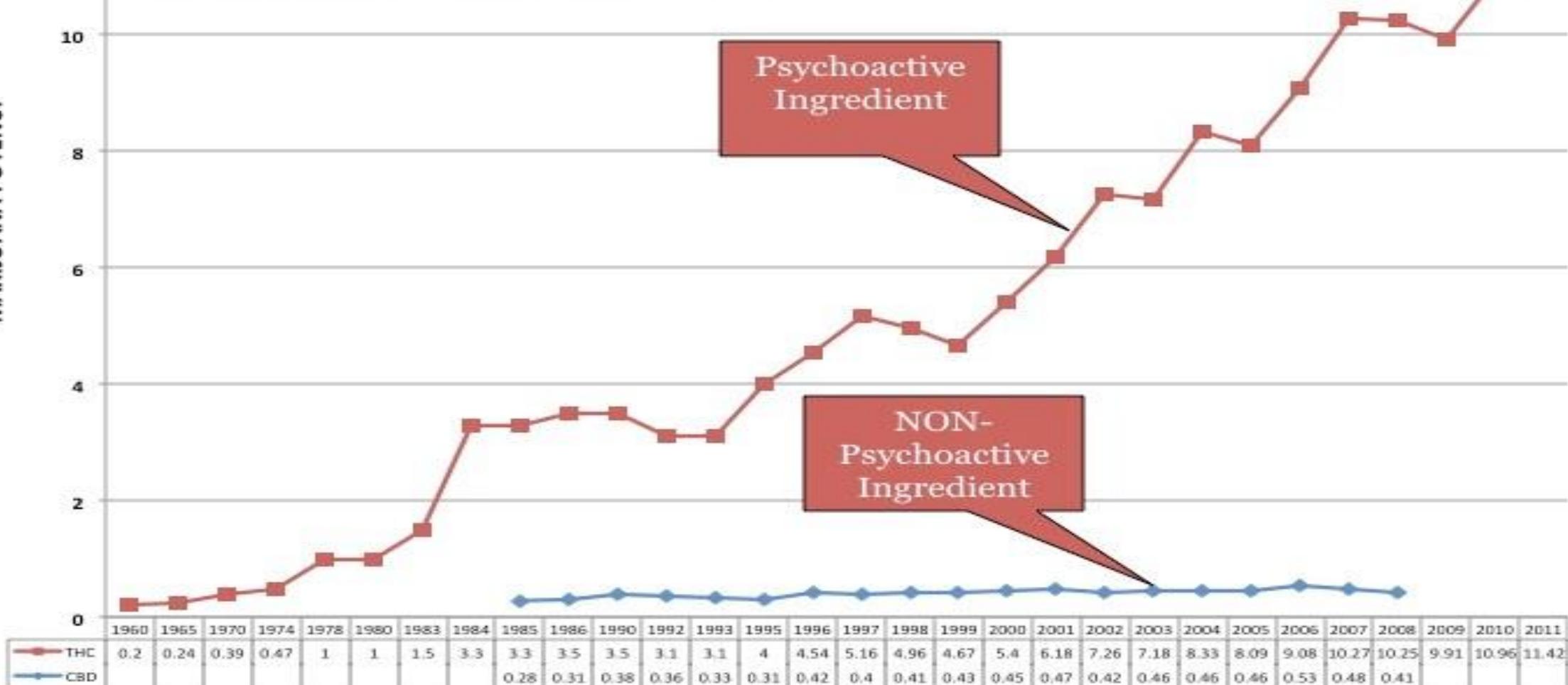
# CBD

- **Cannabidiol**
- AKA: Medical Marijuana
- Non-psychoactive (**no high** – does not act on same receptors as THC)
- May reduce anxiety
- May have antipsychotic properties - reducing the psychosis-like effects of THC
- Promote wakefulness

# Average **THC** and **CBD** Levels in the US: 1960 - 2011

Mehmedic et al., Potency Trends of D-9 THC and Other Cannabinoids in Confiscated Cannabis Preparations from 1993 to 2008, J Forensic Sci, September 2010, Vol. 55, No. 5. See <http://home.olemiss.edu/~suman/potancy%20paper%202010.pdf>.

MARIJUANA POTENCY



# The AP tested 30 kinds of CBD vaping oil: More than a third contained synthetic marijuana, or no CBD at all.

By HOLBROOK MOHR  
ASSOCIATED PRESS | SEP 17, 2019 | 9:52 AM

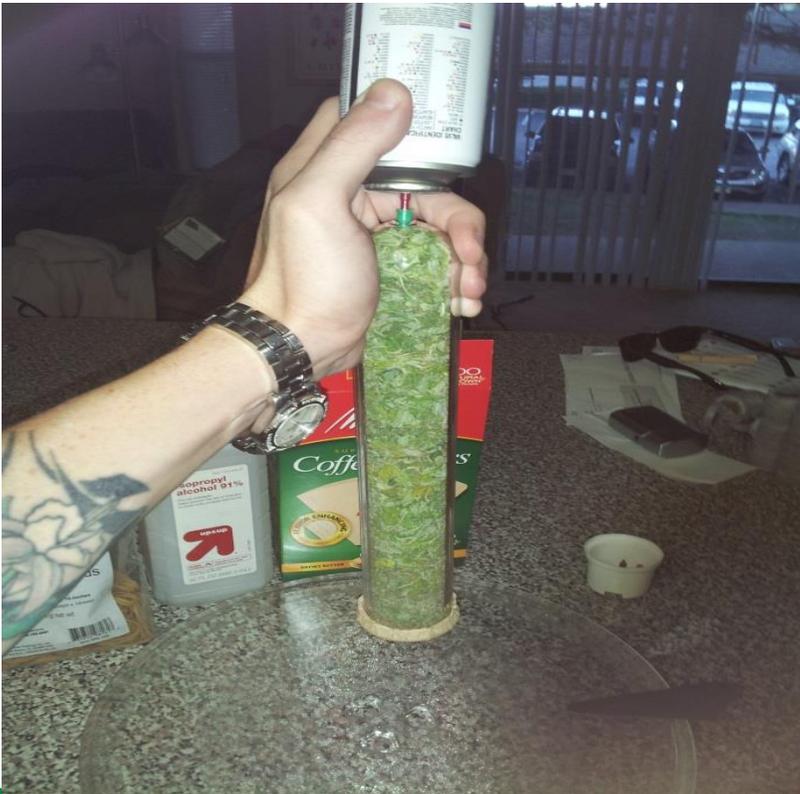


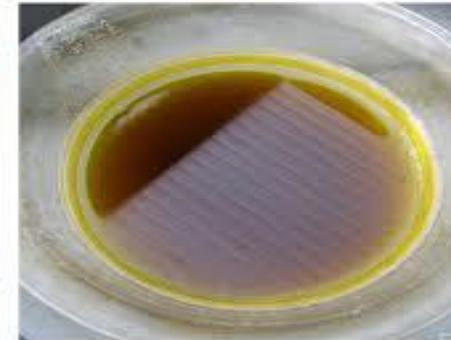
- **Some operators are cashing in on the CBD craze by substituting cheap and illegal synthetic marijuana for natural CBD** in vapes and edibles such as gummy bears, an Associated Press investigation has found
- Now there are CBD candies and beverages, lotions and creams, and even treats for pets
- **Federal and State regulators rarely test as quality control is left to manufacturers**

# CBD

- AAPCC considers CBD an “emerging hazard” due to potential for mislabeling and contamination
- 2017 JAMA (Journal American Medical Association) found **70% of CBD products mislabeled**

# The BHO Process





[www.dailydabs420.com](http://www.dailydabs420.com)

# Wax cooks = “Boom!”

- Wax is to marijuana as freebasing is to cocaine or heroin and what the shake-and-bake method is to meth
- *Very, very* dangerous
- When using butane to make wax, its vapors can fill a room and ignite with the smallest of sparks, just like gas

# BHO Explosions - video

**WARNING**

**The following video contains  
content that may be disturbing to some.  
Viewer discretion is advised**

# BHO Explosions



Extremely dangerous for you, loved ones,  
neighbors, the community

# THC Extracts Vaping: How it Works

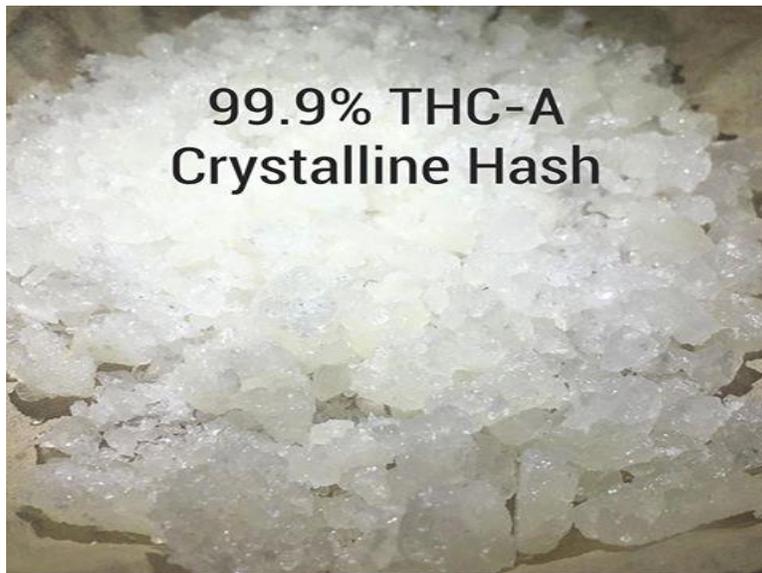
- Vaping wax with a **dab pen** or **e-Nail** is the gold-standard in using extracts because it induces a **clear, clean *high***, and does not produce any smoke
- **Marijuana wax and oil usually contains about 80% THC** compared to **top-shelf dry herb**, with a mere **20%**



<https://thevape.guide/vaping/extract/>

# Crystalline THC

- **THCa Crystalline** was developed as a means of delivering **large, quantifiable doses of THCa** and is known as the purest isolate anywhere on the market testing at 99-100%



# THC'S MANY FORMS



## Smoking Marijuana

Dried flower buds from the cannabis plant



## Smoking Cannabis or Hashish Oils

Made from resin extracted from the flower cluster and top leaves of the plant



## Using a Vaporizer

Cannabis that's heated and vaporized, not burned



## Marinol

FDA-approved medicine that contains synthetic THC



## Edibles

Food, drinks, oils



# Marijuana Edibles

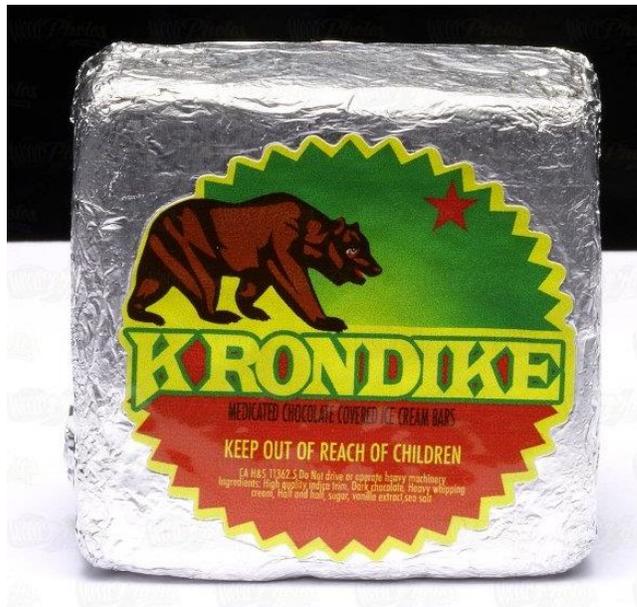


# Marijuana Edibles





NC.





# Third Death in Colorado Linked to Marijuana Edibles

<http://www.foodsafetynews.com/2015/03/third-death-in-colorado-linked-to-edible-marijuana/#.VUqoaLctFdg>

- 1. Colorado dad pleads not guilty to shooting his wife dead in front of their three sons after 'hallucinating on pot candy' March, 2015**
  - Kristine Kirk, 44, was shot dead at her Denver home in April 2014. She was on the phone to 911 reporting her husband's 'scary' behavior. He was 'talking about the end of the world', she said to the dispatcher
- 2. Wyoming college student Levy Thamba Pongi, 19, who took a leap from a Denver hotel balcony after eating pot-infused cookies. "Marijuana intoxication" was listed by the coroner as a significant factor in his death.**
- 3. Luke Goodman, 23, killed himself Saturday, March 27, 2015 in a condo at Colorado's Keystone Ski Area. Goodman's family and friends suspect that edible marijuana was a factor in the self-inflicted gunshot death. His mother, Kim Goodman, blames her son's death on "a complete reaction to the drugs."**

Kristine Kirk and her children in an undated photo.  
Kristine's parents and sister are now legal guardians of the children



Kirk's children have filed the nation's first wrongful-death lawsuit against a recreational marijuana company, claiming their father ate a pot-laced Karma Kandy Orange Ginger, a Tootsie-Roll-like chew, that triggered the April 14, 2014, shooting.

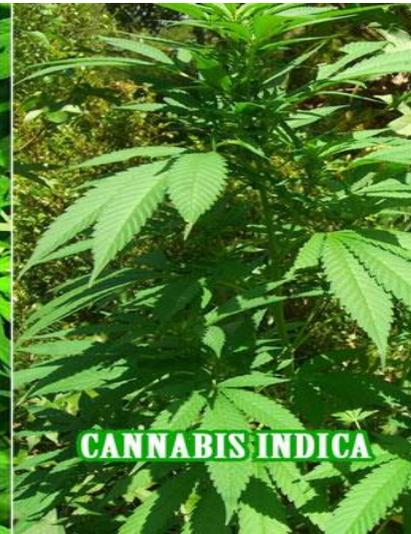
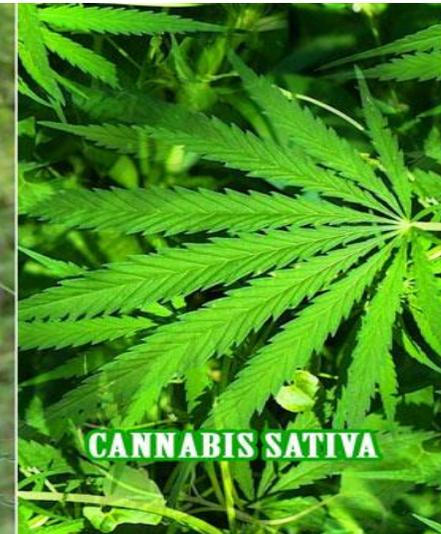
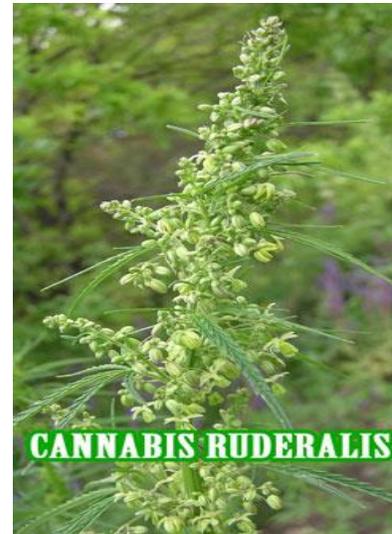
# Then

- 1960-1970s – 2-3% THC (leafy green)
- **420** (chemicals, time to smoke, date to party)
- Smoked weed



# Now

- 20-30% THC (leafy green)
- **710** (oil, concentrated w more chemicals)
- Vaped, smoked, edible, dabbing
- Might not smell it
- Looks like butter, honey, oil
- Synthetic: cooked with butane
  - **90% THC**
  - **Psychotic breaks**
  - **Violent behaviors**



**BHO is 710 is Oil**

**710**

**OIL**

# Resources

- **National Suicide Prevention Lifeline**
  - 1-800-273-8255
- **Unscript Adolescents**
  - 480.502.7000
- **SAMHSA** (Substance Abuse and Mental Health Services Administration)
  - [www.samhsa.gov](http://www.samhsa.gov)
- **AAPCC** (American Association of Poison Control Centers)
  - 1.800.222.1222 and [www.aapcc.org](http://www.aapcc.org)
- **NIDA** (National Institute of Drug Abuse)
  - [www.drugabuse.gov](http://www.drugabuse.gov)

# Resources

- <https://www.tobaccofreekids.org/>
- [www.aapcc.org](http://www.aapcc.org) or 1.800.222.1222
- [https://e-cigarettes.surgeongeneral.gov/documents/2016\\_SGR\\_Full\\_Report\\_508.pdf](https://e-cigarettes.surgeongeneral.gov/documents/2016_SGR_Full_Report_508.pdf)
- [https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/index.htm](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm)
- [https://www.washingtonpost.com/local/public-safety/juuling-if-you-dont-know-what-it-is-ask-your-kids/2018/05/09/37e2f026-4d65-11e8-84a0-458a1aa9ac0a\\_story.html?utm\\_term=.705cee4b8f42](https://www.washingtonpost.com/local/public-safety/juuling-if-you-dont-know-what-it-is-ask-your-kids/2018/05/09/37e2f026-4d65-11e8-84a0-458a1aa9ac0a_story.html?utm_term=.705cee4b8f42)

- <https://no-smoke.org/smokefree-threats/electronic-cigarettes/>



## **Electronic Smoking Devices (ESDs)**

### **Not Safe for Use in Smokefree Spaces**

**Electronic cigarettes, or e-cigarettes, are part of a category of products called Electronic Smoking Devices (ESDs), which are designed to mimic combustible tobacco cigarettes and, in most cases, contain varying levels of nicotine.**

**ESDs are relatively new products that require further study. The scientific evidence on the short-term and long-term health effects of the use of ESDs and exposure to ESD secondhand aerosol is growing, and the initial findings indicate there are risks associated with both use and exposure.**

**As of April 1, 2019, 841 municipalities, 13 states, and two territories include electronic smoking devices as products that are prohibited from use in 100% smokefree environments.**



## What You Need to Know And How to Talk With Your Kids About Vaping



Although it has been around for over a decade, vaping's popularity exploded in 2017, taking many families, schools and healthcare providers by surprise. Vaping, or Juuling as it is often referred to by teens and young adults (named after a popular vape device called JUUL), is the inhaling and exhaling of an aerosol produced by using a vape device.

According to the University of Michigan's 2017 Monitoring the Future study, nearly 1 in 3 high school seniors tried vaping in the past year. With advertising geared toward teens and young adults, brightly colored vape pens and thousands of flavors to choose from, the expectation is that growth will continue. Some estimate that the market will be worth over \$60 billion by 2025.

For every story or article touting the benefits of vaping, there are an equal number raising concerns about the risks of vaping, especially for teens and young adults. This guide is intended to help you understand what vaping is, its appeal to youth and what research has to say about both the risks and unknowns, due to the lack of long-term vaping studies. We've identified some signs to look for and what to do if you are concerned that your child may try or actually is vaping. Lastly, we offer some advice on what to say when talking with your child about vaping.

### What Is in This Guide?

What is Vaping? .....	3
How Does Vaping Work? .....	3
What Do Vape Devices Look Like? .....	3
What Is Being Vaped? .....	3
What Is Vaping's Appeal? .....	4
Is Vaping Safe? .....	5
Marijuana and Vaping.....	7
How Is Vaping Regulated? .....	8
What Should Parents Know .....	8
What Are the Signs of Vaping?.....	8
What Can Parents Do to Safeguard Against Vaping? .....	9
What to Say When Your Teen Asks:.....	10
Resources.....	12



Teen using a JUUL

**Nearly 1 in 3** high school seniors tried vaping in the past year.

Monitoring the Future, 2017

© Partnership for Drug-Free Kids, Fall 2018

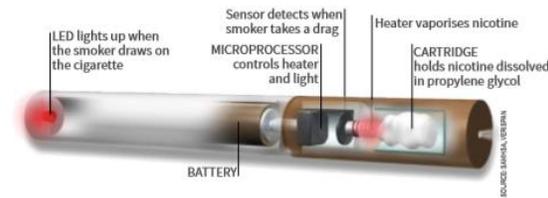
- <https://drugfree.org/parent-blog/how-to-talk-with-your-kids-about-vaping-guide/>

## What is Vaping?

Vaping is the act of inhaling and exhaling aerosol or vapor produced by a vape device. Because of the rise in popularity of JUUL, a specific type of vape device, many teens and young adults use the term “JUULING” (pronounced Jeweljing), instead of vaping.

### How Does Vaping Work?

Vape devices, known as *e-cigs*, *e-hookahs*, *mods*, *vape pens*, *vapes*, *tank systems* and *Juuls*, contain 4 basic components: a cartridge or a tank to hold e-liquid (or e-juice/vape sauce), a heating element known as an atomizer, a battery and a mouthpiece to inhale.



A sensor detects when a person is trying to inhale. This triggers the battery to supply electricity to the coil of wire or the atomizer. The heat given off by the coil is transferred to the e-liquid, which can only take so much energy before it's vaporized, and this is what users inhale. While the output of the devices may look like smoke, it is actually vapor.

### What Do Vape Devices Look Like?

Some vape devices look like regular cigarettes, cigars or pipes while others resemble USB sticks and other everyday objects like a guitar pick. Larger devices such as tank systems, or “mods,” do not look like other tobacco products. Instead, they look more like a small cellphone. Some devices can be thrown away, while others can be reused by charging the device on the USB port of a computer or elsewhere and replacing the e-liquid, either by filling the chamber or using a self-contained pod.

### What Is Being Vaped?

Although many substances can be vaped, three are most common: flavored e-liquids, flavored e-liquids with nicotine, and marijuana. The e-liquids come

Vape devices can look like regular cigarettes, cigars or pipes, while others resemble USB sticks, guitar picks and a small cellphone.



Vape pens generally are available for \$20 and up. Current pricing for the JUUL starter kit is \$49.99, which includes the device, a charger, and 4 flavored pods.

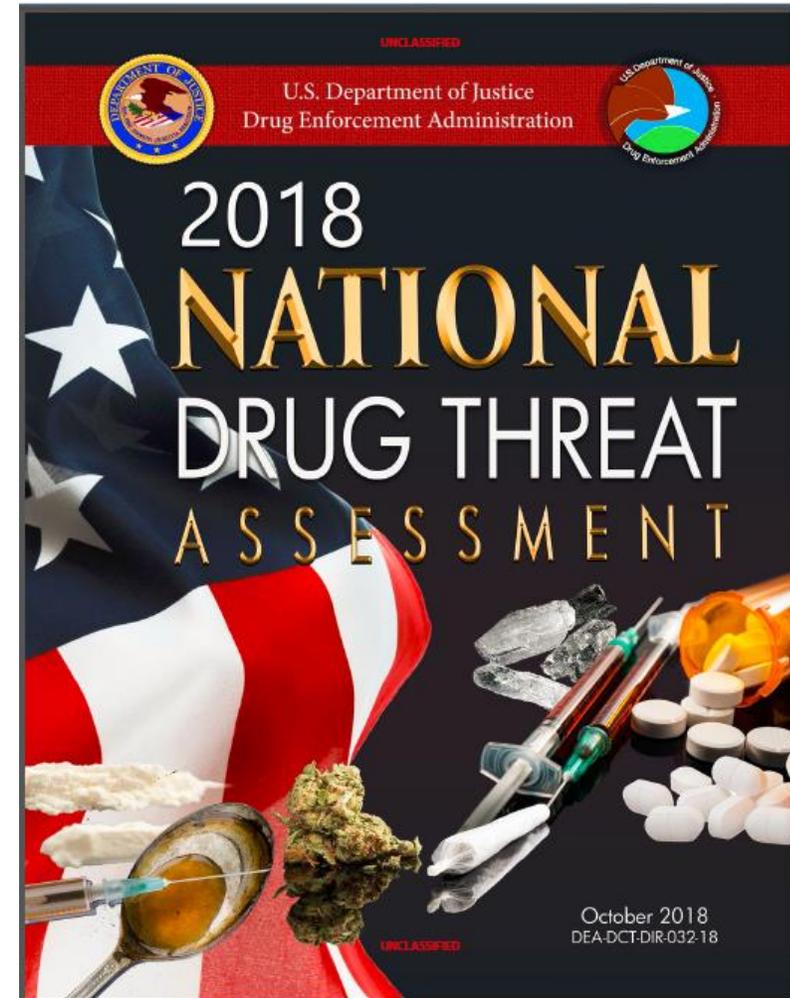
# The Truth Initiative

- <https://truthinitiative.org/>
- To access the new e-cigarette quit program...
- Text “QUIT” to  
**(202) 804-9884**



# DEA – NDTA – Oct. 2018

- <https://www.dea.gov/sites/default/files/2018-11/DIR-032-18%202018%20NDTA%20final%20low%20resolution.pdf>



# Thoughts or Questions?

- People boycott food and clothes
  - Animals
  - Child labor
  - Working conditions
- Why not drugs?
  - Torture
  - Violence
  - Families, including children, murdered
  - Corruption
  - Fraud

# Don't waste time...

- Learn something new?
- Tell others
- Be proactive
- Prioritize healthy decisions/conversations
- Be honest and direct
- Keep it real

# Thank You!

Stephanie Siete  
Public Information Officer

**Access to Care - 24/7**  
**877.931.9142**

CommunityBridgesAZ.org

<https://www.facebook.com/CommunityBridgesAZ>

[ssiete@cbridges.com](mailto:ssiete@cbridges.com)

602.377.4591

# CARE

## Breaking Down Barriers to Find Help and Hope in Recovery

Join us at the 14th annual Celebrate the Art of Recovery Expo (CARE), where Community Bridges, Inc. (CBI) will break down the barriers to find help and hope in recovery.

**When:** Saturday, September 28, 2019 from 10 a.m. - 2 p.m.

**Where:** Phoenix Convention Center, West Building [#300](#)

**Why:** To celebrate National Recovery Month and break down the barriers associated with addiction

**Who:** All are welcome for **FREE**

**What:** Educational workshops; awareness, education, family recovery and prevention resources; solutions for addiction treatment and behavioral health; and the opportunity to meet leading professionals in this industry.

CBI knows recovery is possible, and supports Arizonans with integrated behavioral health programs that use cutting-edge research in the prevention, education and treatment of people experiencing crisis, substance use disorder, homelessness and mental illness.

**FREE  
ADDICTION  
AND MENTAL  
HEALTH  
AWARENESS  
EVENT!**

# CARE

## Celebrate the Art of Recovery Expo

- Saturday, September 28<sup>th</sup>
- The Phoenix Convention Center, 100 N. 3rd Street Phoenix, Arizona 85004 (West Building #300)
- FREE
- 10am-2pm
- <https://www.celebratetheartofrecovery.org/>

# Brendan McDonough

is the lone survivor of the Yarnell Hill fire tragedy of 2013. Today he is a public speaker and works with numerous nonprofits for veterans, police officers, firefighters, and emergency medical services. He lives in Prescott, Arizona.

McDonough is an uplifting speaker, whose courage to find support at his weakest has inspired others to find their own tribes of support. Building a sense of brotherhood within communities gives McDonough great joy – because it helps this fighter honor the legacy of his 19 lost, but not forgotten, brothers.

[BOOK NOW](#)

