



## SAY San Diego Synthetic Drugs & Emerging Drug Trends

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## Background... Why Are We Here?

## Emerging Drugs & Safety Risks

## 7 Classes of Drugs

- Physicians have long recognized that different types of drugs affect people differently. Nonetheless, drugs may be categorized or classified according to certain shared symptomatology or effects.
- DREs classify drugs in one of seven categories: **central nervous system (CNS) depressants**, CNS stimulants, hallucinogens, dissociative anesthetics, **narcotic analgesics**, inhalants, and cannabis.
- Drugs from each of these categories can affect a person's central nervous system and impair a person's normal faculties, including a person's ability to safely operate a motor vehicle.

## Central Nervous System (CNS) Depressants

- (1) Central Nervous System (CNS) Depressants
- CNS depressants slow down the operations of the brain and the body. Examples of CNS depressants include alcohol, barbiturates, anti-anxiety tranquilizers (e.g., Valium, Librium, Xanax, Prozac, and Thorazine), GHB (gamma hydroxybutyrate), Rohypnol, and many other anti-depressants (e.g., Zoloft, Paxil).

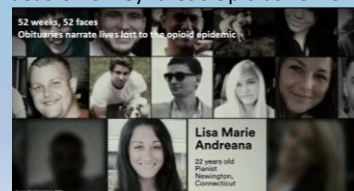
## Narcotic Analgesics

- (5) Narcotic Analgesics
- Narcotic analgesics relieve pain, induce euphoria, and create mood changes in the user. Examples of narcotic analgesics include **opium**, codeine, **heroin**, demerol, darvon, **morphine**, methadone, **Vicodin**, and **oxycontin**.

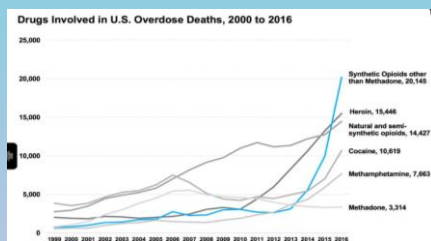
## United States Opioid Epidemic

### Question

- What do the musician known as “Prince”, a teenager, a service member, a mother with an unborn child, a business owner and a celebrity all have in common with **64,000** others in the United States?
- They all died from Opioid Overdoses in 2016.
- **20,000** deaths from Synthetic Opioids i.e. Fentanyl.



### 64,000 Drug Overdose Deaths for 2016 with 20,000 from Synthetic Opioids (estimated)



Drugs Involved in U.S. Overdose Deaths - Among the more than 64,000 drug overdose deaths estimated in 2016, the sharpest increase occurred among deaths related to fentanyl and fentanyl analogs (synthetic opioids) with over 20,000 overdose deaths. Source: CDC WONDER.

## Opioid Epidemic in United States

- 7 people currently die every hour from opioid overdoses in the United States
- 168 people per day
- 64,000 estimated Overdose deaths from Opioids in the United States in year 2016.
- **20,000** of the 64,000 estimated **deaths** were **from synthetic opioids (Fentanyl and analogs)**

## To Put it in Perspective

- Drug overdoses are the number one cause of death for people under age 50 in the USA
- Fastest increase in death toll in U.S. History
- More are dying from drug overdoses than the numbers at the peak of the Aids epidemic, peak of car crash deaths and the peak of gun violence deaths
- **More are dying every year than the total number of deaths from the Vietnam war**

## Synthetic Opioids

## Fentanyl

- 100 times more potent than morphine
- 30 to 50 times more potent than heroin
- Used for Severe Pain – Schedule II Narcotic
- Pharmacy and Hospital Use
- **Illicit Use by Mexican Drug Cartels**  
Manufacturing Fentanyl and smuggled into USA
- Foreign Countries supplying pre-cursor Chemicals

## How Fentanyl Can Enter Body

- Intravenous (IV) is the fastest and most effective way
- Inhaled/Snorted
- Ingestion (orally)
- Nasal Spray
- Sublingual Spray
- Sublingual Tablets
- Buccal Tablets
- **Transdermally** (Through the skin)  
– *This is a unique concern with fentanyl*



## Fatal Dose of Fentanyl

- 2-3 milligrams of fentanyl can induce respiratory depression, arrest and possibly death
- **Overdose symptoms can include:**
  - drowsiness, disorientation, sedation, pinpoint pupils, skin rash, clammy skin, and respiratory depression or arrest.

Source: Fentanyl: A Briefing Guide for First Responders, U.S. Department of Justice, Drug Enforcement Administration

## Carfentanil

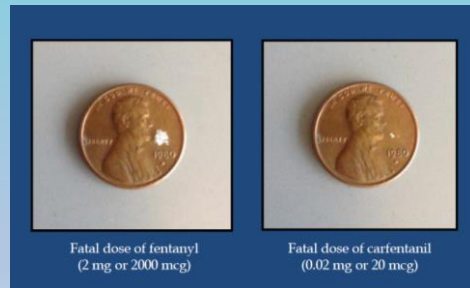
- **Carfentanil**, which is structurally related to fentanyl, is up to **10,000 times more potent than morphine**.
- The toxic dose of carfentanil in humans is unknown. Regardless, any substance suspected to contain fentanyl should be treated with extreme caution as exposure to a small amount can lead to significant health-related complications, or death.

Source: Fentanyl: A Briefing Guide for First Responders, U.S. Department of Justice, Drug Enforcement Administration

## Fatal Doses of Heroin, Fentanyl and Carfentanil



## Fatal Doses of Fentanyl and Carfentanil



## Narcan – Naloxone Can Reverse an Opioid Overdose

OD numbers  
up despite  
increased  
Narcan use

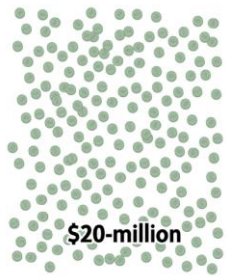


- ▣ San Diego County paramedics used 20% more Narcan this year than in 2016
- Fentanyl overdoses requires more Narcan than heroin OD

## Why Fentanyl & Synthetic Opioids?



**\$12,500**



**\$20-million**

### Bootleg fentanyl is highly lucrative

The math works like this, according to Edmonton physician Hakique Virani: A kilogram of pure fentanyl powder costs \$12,500. A kilo is enough to make 1,000,000 tablets. Each tablet sells for \$20 in major cities, for total proceeds of \$20-million. In smaller markets, the street price is as high as \$80.

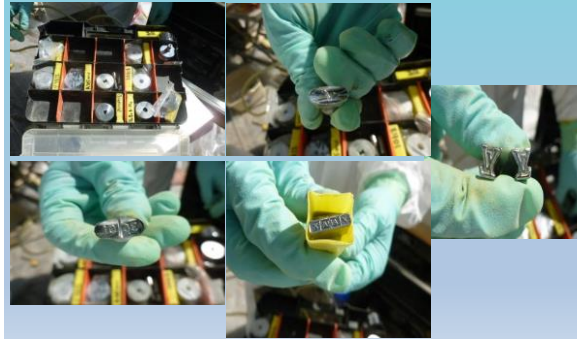
## One Weekend of Seizures at the California Points of Entry with Mexico

- From Friday, September 15 through Sunday, September 17, 2017
- **Drugs confiscated:**
- 200 pounds of methamphetamine
- 160 pounds of cocaine
- **75 pounds of fentanyl**
- Almost seven pounds of heroin.

### Tablet Presses



### Tablet Presses



### eBay Auction for Xanax Pill Press Die Mold

**XANAX 2 pill press die mold for tablet press machine [12\*5MM]**

Item condition: **New**

Model: 12MM\*5MM 1 STDT

Quantity: 1 5 available

Price: **US \$149.00**

Shipping: **\$15.00** Expedited Shipping from outside US | See details

Delivery: Estimated within 2-6 business days

Payments: **PayPal** | See details

Returns: 60-day returns. Buyer pays for return shipping | See details

Guarantee: **eBay MONEY BACK GUARANTEE** | See details

Get the item you ordered or get your money back. Covers your purchase price and original shipping.

**Have one to sell? Sell now**

### Xanax "Candy" Die Stamp

**XANAX Punching Die Mold Stamp for candy table press mold pil maker 12\*5\*5**

Item condition: **New**

Quantity: 1 More than 12 available | 1 sold

Price: **US \$75.99**

Shipping: **FREE** Standard Shipping | See details

Delivery: Estimated arrival: **Tue, Jan 23**

Payments: **PayPal** | See details

Returns: 30-day returns. Buyer pays for return shipping | See details

Guarantee: **eBay MONEY BACK GUARANTEE** | See details

Get the item you ordered or get your money back. Covers your purchase price and original shipping.

### Amazon.com "M-30" and "Xanax" Die Stamps

**M-30 Stamping mold 19\*5mm (1.5T)**

**M30 Stamping Candy Make (5T)**



## Fentanyl and Analogs in Counterfeit RX Pills, Tablets, etc.

- Potentially lethal, even at very low levels as small as 0.25 mg
- Found as a Powder, Pills, Tablets, Capsules & in Street Drugs
- Has Been Found in FAKE/Counterfeit Prescription Medications!
- Recent Overdose Deaths in California!



## DEA Public Safety Alert (4-1-2016)



## Counterfeit Prescription Pills

Can you spot the fake?

Counterfeit

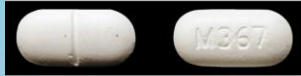


Photo courtesy of California Poison Control System, San Francisco Division

According to the DEA, this pill is a replica. Analysis of a tablet from the same batch indicated that it contained fentanyl, promethazine, acetaminophen and trace amounts of cocaine.

Real



Photo courtesy of Mallinckrodt PLC

This legitimate prescription pill made by Mallinckrodt PLC contains hydrocodone bitartrate and acetaminophen.

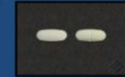
THE WALL STREET JOURNAL

## Counterfeit Tablets with Fentanyl

### Counterfeit Tablets with Fentanyl

Pharmaceuticals – Clandestine

- Counterfeits
  - Xanax
  - Roxicodone
  - Hydrocodone
- Tableting Machines
- Ordered from China
- Punch/Dies
  - Trademarked Punch Dies are Contraband
  - Users may not know what they are ingesting



### Counterfeit tablets



Fentanyl  
Dipyrone  
Acetaminophen



Butyryl Fentanyl  
Fluoroisobutyl Fentanyl  
U-47700



Furanyl Fentanyl



Butyryl Fentanyl

### Counterfeit tablets



Fentanyl



TH-PVP,  
Dibutylone



"Mother Pill"



"Mother Pill 2"



Stamped as:  
OxyContin 40 mg



OxyContin 40 should look like this:



- Fentanyl
- Fluorisoobutyrylfentanyl
- Butyrylfentanyl
- Methamphetamine
- Chloroethcathinone
- Alpha-PPP
- Deschloroketamine
- Cocaine
- Levamisole
- Caffeine
- Lidocaine
- Carbamazepine
- TH-PVP
- U-47700
- 4-ANPP
- Diclazepam
- Flubromazepam
- Etizolam
- Deschloroetizolam
- Dibutylone

### Counterfeit tablets

Stamped as: "Superman" logo XTC



- Fentanyl
- Fluorisoobutyrylfentanyl
- Butyrylfentanyl
- Methamphetamine
- Chloroethcathinone
- Alpha-PPP
- Deschloroketamine
- Cocaine
- Levamisole
- Caffeine
- Lidocaine
- Carbamazepine
- TH-PVP
- U-47700
- 4-ANPP
- Diclazepam
- Flubromazepam
- Etizolam
- Deschloroetizolam
- Dibutylone

## Crime Lab



Forensic scientist Terry Baisz at the Orange County Sheriff's Department's crime lab shows pills that appear to be other pharmaceutical drugs but are actually fentanyl.

## Overdoses & Deaths

### RECOGNIZING AN OPIOID OVERDOSE

- During an overdose, opiates overwhelm certain receptors in the brain, interrupting a key part of the body's impulse to breathe. Breathing slows dangerously or stops. Reversing this process quickly is crucial because without breathing and oxygen, brain damage or death can occur. Quickly recognizing the signs of an opioid overdose and acting appropriately could make all the difference.

### Overdose Signs Include

- Disorientation
- Clammy Skin
- Will not wake up or respond to your voice or touch
- Breathing is very slow, irregular or has stopped from respiratory depression or arrest
- Center part of their eye is very small — sometimes called "pinpoint pupils"
- Fingernails and lips turning blue or purple
- Slow heartbeat and/or low blood pressure
- Not all of these signs may be present. If you suspect an opioid overdose, get emergency medical assistance right away.
- **Call 911**

## Narcan – Naloxone Can Reverse an Opioid Overdose

OD numbers  
up despite  
increased  
Narcan use



- San Diego County paramedics used 20% more Narcan this year than in 2016
- Fentanyl overdoses requires more Narcan than heroin OD

## Active Duty U.S. Navy Service Member Death

- Found deceased at home.
- Bottle labeled "Alprazolam" (Prescription drug, trade name Xanax), a potent, short-acting tranquilizer for anxiety disorders)
- Bottle contained six counterfeit prescription pills "M-30" blue Tablets.
- Pill crusher with a blue residue on it.
- Toxicology Report – Fentanyl + Other Drugs**



- August 2017
- 24 y/o male
- Active duty Navy
- Found in chair at home
- Blood:
  - Fentanyl -- 16 ng/mL
  - MDMA -- 0.06 mg/L
  - MDA -- (<0.01 mg/L)
  - Mitragynine -- 0.15 mg/L
  - Fluoxetine -- 0.13 mg/L
  - Alprazolam -- (<0.05 mg/L)
  - Nordiazepam -- (<0.05 mg/L)

**Cause of Death:** Fentanyl, Mitragynine, Alprazolam, Nordiazepam, and MDMA toxicity



- Evidence at scene:
- 6 Blue pills (M/30)
- Stamped as: Oxycodone 30 mg
- Actually contained:
  - Fentanyl
  - Acetaminophen
  - Dipyrone
- Pill crusher w/ blue residue

**Cause of Death:** Fentanyl, Mitragynine, Alprazolam, Nordiazepam, and MDMA toxicity

## Vista 3 Overdose Deaths from Fentanyl

**Reader**

Duffin was struggling to cover the restaurant's \$4,700 monthly rent.

OC REGISTER NEWS | OCEANSIDE

**Jennie's Cafe in Oceanside closed – drug overdose**  
Owner leaves behind three children

By Ken Leighton, May 16, 2017

Jennie Duffin was not able to open her Oceanside café on Sunday. But some of her friends staged their own Mother's Day tribute to her on the Jennie's Café patio that runs along Coast Highway.

They brought their own donuts and coffee and talked about the former waitress and mother of three who opened her namesake café three years ago.

## Counterfeit Prescription Pill with 20 Different Ingredients

### Pill with 20 Ingredients

- Overdose in April 2017
- 34 year old Male
- Imperial Beach



Oxy Contin 40  
should look  
like this



- Fentanyl
- Fluorobutyrylfentanyl
- Butyrylfentanyl
- Methamphetamine
- Chlorzoxiprone
- Alpha-PPP
- Deschloroketamine
- Cocaine
- Levamisole
- Caffeine
- Lidocaine
- Carbamazepine
- TH-PPH
- U-47700
- 4-ANPP
- Diclozepam
- Flurazepam
- Etizolam
- Deschloroetizolam
- Dibutyfene



## 18 Year Old and 19 Year Old Dead from Separate Fentanyl Overdoses

### Childhood friends die of fentanyl overdoses on same day, half-mile apart

POSTED 5:14 PM, OCTOBER 24, 2017 BY CNN WIRE SERVICE

LAWRENCEVILLE, Georgia — Twenty seconds is all it took to kill 19-year-old Dustin Manning.

His devastated parents, Greg and Lisa Manning, said the toxicology report found he had taken a toxic mix of heroin and fentanyl, a synthetic opioid so powerful it's often fatal.

"The amount of fentanyl in his body was the equivalent to three grains of salt. That's all it took to kill a 180-pound guy," said Greg Manning.

Dustin died on Friday, May 26th, in Lawrenceville, a suburb on the outskirts of Atlanta.

At 6:09 a.m., paramedics were called to a home with reports of an unresponsive teenager. Dustin was dead.


"I had told him I'd get him up early for work, and I came up around 5:45 to wake him up, and when I opened the door, he looked like he was tying his shoes. Very quickly I realized, grabbed him and he was cold," said Greg Manning.

## 10-Year-Old Boy Fentanyl Death

CNN Health • Diet • Fitness • Living Well • Parenting • Family Live TV U.S. Edition

### 10-year-old Miami boy dies after suspected skin contact with fentanyl

By Susan Scotti, CNN  
Updated 5:05 PM ET, Thu July 20, 2017



## Significant Threat to First Responders

- Due to their hazardous nature, fentanyl and fentanyl-related substances pose a significant threat to law enforcement personnel and to other first responders, including fire and emergency medical personnel.
- Fentanyl-related substances have been identified in **Powder, Pill, Capsule, Liquid (and on) Blotter Paper**

Source: Fentanyl: A Briefing Guide for First Responders, U.S. Department of Justice, Drug Enforcement Administration

## Law Enforcement & First Responders Safety Considerations

**Another Priority:  
Keeping First Responders Safe**



## San Diego Police Department Also Stopped Field Testing For Drugs

US News & World Report **BEST STATES** RANKINGS STATES DATA EXPLORER VIDEOS NEWS

### Houston Police to Stop Field Testing for Drugs

The Houston Police Department says it will no longer have officers conduct field tests that give initial indications whether a substance is an illegal drug.

July 14, 2017, at 9:13 p.m.

**AP**

HOUSTON (AP) — The Houston Police Department says it will no longer have officers conduct field tests that give initial indications whether a substance is an illegal drug.

Police Chief Art Acevedo said Friday the change was made for safety reasons. Carfentanyl, a synthetic opioid, was discovered in recent local drug seizures. Officials say the drug can be deadly if not properly handled.

The Harris County Sheriff's Office also said Friday that it's stopping drug field testing.

## Fentanyl Powder on Officer's Shirt Brushed Off with Hand = Overdose

### Police officer suffers fentanyl overdose from drug call

WKBN  
Published: May 15, 2017, 7:54 am | Updated: May 15, 2017, 5:09 pm

EAST LIVERPOOL, Ohio (WKBN) — An Ohio police officer accidentally touched Fentanyl and overdosed while responding to a drug-involved call Friday night.

Friday around 8:50 p.m., East Liverpool patrolman Chris Green responded to a traffic stop. According to a police report, East Liverpool police had blocked in a blue Monte Carlo after watching the driver — 25-year-old Justin Buckle — perform what they believed was a drug transaction.

"We think they were trying to flee, but they were blocked in," East Liverpool Captain Patrick Wright said. "Once they got blocked in, they tried to dispose of the evidence in the vehicle.

"There was white powder on the seat, on the floor, on the guys' shoes and on his clothing."

## 18 Swat Officers Hospitalized After Exposure to Unknown Chemical



## Protective Gear & Decontamination When Dealing with Suspected Fentanyl Exposure



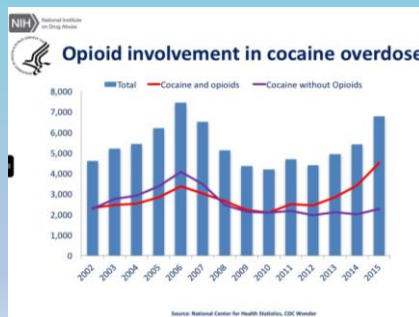
## Cocaine with Fentanyl

- The DEA is also warning about fentanyl being increasingly cut up into cocaine, in addition to heroin.
- The development is particularly alarming for law enforcement who note that, unlike heroin, cocaine is more widely used as a social drug.
- They fear that users are largely unaware of fentanyl being cut up with cocaine and say it is already having deadly consequences.

## Potent problem: Fentanyl, a Deadly Drug used to Spike Heroin and Cocaine

- Among those killed was a 19-year-old from South Orange County. He overdosed sitting on his sofa, with a white powder on his nose and mouth and a cellphone on his lap. An incoming text message asked if he was still looking for "blo," according to a coroner's report.
- The teen had dabbled in cocaine and consumed alcohol, his family told investigators, but a lab test revealed the white powder was fentanyl, not cocaine.

## Opioid Involvement in Cocaine Overdose Deaths (Red Line)



## What are Benzodiazepines?

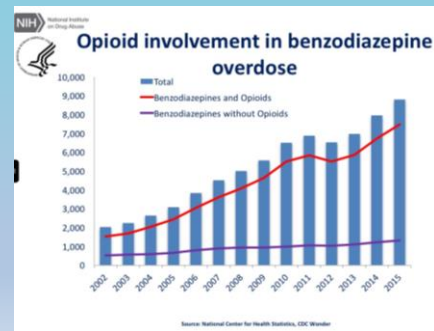
- Benzodiazepines are depressants that produce sedation, induce sleep, relieve anxiety and muscle spasms, and prevent seizures
- The most common benzodiazepines are the prescription drugs Valium®, Xanax®, Halcion®, Ativan®, and Klonopin®.



## Abuse and Overdose of Benzodiazepines

- Abuse is frequently associated with adolescents and young adults who take the drug orally or crush it up and snort it to get high. Abuse is particularly high among heroin and cocaine abusers.
- Overdose effects include shallow respiration, clammy skin, dilated pupils, weak and rapid pulse, coma, and possible death.

## Opioid Involvement in Benzodiazepine Overdose Deaths (Red Line)



## Synthetic Drugs Spice and Bath Salts

## Overview of Spice and Bath Salts

- What are they? What do they look like?
- Warnings and Symptoms of Use
- Symptomatology
- Availability in the Community
- Synthetic Drug Laws and Bans
- Community Engagement

## What are Spice and “Bath Salts”?

- Spice is a mixture of herbs sprayed/laced with toxic synthetic chemicals that cause dangerous health effects and behaviors
- Bath salts are synthetic chemicals in a powder or crystal-like form that have a high risk for overdose
- They are NOT legitimate Bath Salts!



## Real Potpourri and Incense Legitimate Products!



## Legitimate Bath Salts next to Three Containers of the drug "Bath Salts"



## Synthetic Drugs & New Psychoactive Substances A World-Wide Issue

## Global Emergence of NPS 2008-2013



Source: United Nations Office on Drugs and Crime (UNODC)

## NPS World-Wide

Fig. 4: Total number of NPS reports to UNODC by countries worldwide, 2008 to 2013

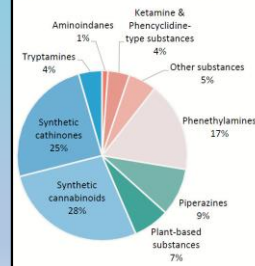


Table 1: NPS groups

NPS groups	Examples
Aminoindanes	2-AL, MDAI
Phencyclidine-type substances	Ketamine, methoxyphencyclidine
Phenethylamines	25B-NBOMe, PMMA
Plant-based substances	Khat <sup>1</sup> , kratom <sup>2</sup> , salvia divinorum <sup>3</sup>
Piperazines	BZP, TFMP
Synthetic cannabinoids	JWH-018, AKB-48
Synthetic cathinones	Mephedrone, MDPV
Tryptamines	5-MeO-DMT, 5-MeO-DPT

Source: United Nations Office on Drugs and Crime (UNODC)

<sup>1</sup> The khat shrub (*Catha edulis*) of the coffeeaceae family is a plant native to the horn of Africa and the Arabian peninsula and a plant-based NPS not under international control. United Nations Office on Drugs and Crime (UNODC). The challenge of new psychoactive substances. Global Synthetic Monitoring, Analysis, Reporting and Trends (SMART) Programme, Vienna, March 2013.

<sup>2</sup> Mitragyna speciosa (Kratom) of the Rubiaceae family is a large tree known as 'Kratom' found in the tropical and sub-tropical regions of South-East Asia. Kratom is a plant-based NPS and neither kratom nor any of its active alkaloids are listed under the 1953 and 1971 UN Conventions. United Nations Office on Drugs and Crime (UNODC). The challenge of new substances.

Source: United Nations Office on Drugs and Crime (UNODC)

## Number of NPS not under International Control



Source: United Nations Office on Drugs and Crime (UNODC)

## Popularity

- The increase in NPS use is most likely due to several reasons
- Legality of these drugs (staying steps ahead of legislation)
- User expectation of an intense high
- Easy accessibility via Retail Stores and Internet
- Affordable
- Avoidance of detection in standard drug tests

Source: United Nations Office on Drugs and Crime (UNODC)

## Spice Overdoses in Downtown San Diego



<http://www.sandiegouniontribune.com/news/2015/dec/05/synthetic-spice-drug-overdoses-warning/>

## Safety Risks

- Excited Delirium
- This condition can affect some Synthetic Drug Users
- Significant Safety risks involved!
- Acute medical emergency for the User!

## Safety Risks

- Persons experiencing excited delirium may have extraordinary strength associated with PCP use
- Other conditions can cause excited delirium that are not associated with drug use (medical conditions; Closed head injuries, diabetic coma, sepsis) and from certain psychiatric illnesses
- Request support

## Soldier - Police Pursuit, Double-Murder, Suicide (Edited Video Seattle)



Source: [www.komonews.com/communities/olympia/196538761.html](http://www.komonews.com/communities/olympia/196538761.html)

## Bath Salts Deaths— High Speed Pursuit, Murder- Suicide



Washington State, Interstate 5, speeds in excess of 100 mph. Murder-Suicide when pursuit ended. Five-year old child found dead in home from asphyxiation



Source: [www.komonews.com/communities/olympia/196538761.html](http://www.komonews.com/communities/olympia/196538761.html)

## Bath Salts Users (Edited Video)



Source: <https://www.kcet.org/shows/social-connected/bath-salts-zombie-drug-remains-cheap-easy-to-get-and-devastating-0>



## Warnings By Government

- Numerous warnings by government agencies and military
- DEA, DOJ, CDC, Poison Control Centers, American Medical Association, etc.



## Synthetic Drug Dangers

- Unregulated and untested
- No medicinal use
- **Reports of Addiction**
- Never tested on humans
- One-time use has resulted in serious injuries and death

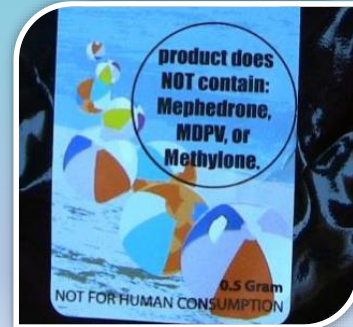


## Spice and Bath Salts Are Not Regulated by the FDA!

- Not regulated because the products are labeled **“NOT for Human Consumption”**
- Often sold as novelty items or household products



## “Glass Cleaner” “Not for Human Consumption”



## Drug Tests

- Bath Salts and Spice are not detected on standard drug tests
- Specialized test is needed and is more expensive than standard drug tests
- Appeals to those who are randomly tested
  - Military
  - Probation/Parole
  - People in Substance Abuse Treatment Programs
  - Athletes – College and Professional
  - Employment

## Synthetic Cannabinoids

- Also Known As...
- Spice
- Potpourri
- Herbal Incense
- K2, K3, etc.



## "Spice" "K2" (Synthetic Cannabinoids)



- Sold in foil packages, clear plastic baggies, and jars/containers
- **Multi-Billion Dollar a Year Industry!**



## Synthetic Cannabinoids "Spice" Packaging



## Synthetic Cannabinoids "Spice" Packaging



## The Packaging Stays the Same – Even With Different Chemical Formulas!

- The packaging for Spice does NOT state what specific drug(s) are being sprayed onto the plant material
- **The Same EXACT packaging can have different chemical formulas for Spice from one purchase to the next!**
- People using these drugs have NO knowledge of what chemical formulas are in the package or the affect those chemicals will have on them
- Spice affects people differently
- **Hundreds of DIFFERENT chemical formulas for Spice**

## What Chemical Formula(s) are in Your Package of Spice?



## Spice Dangerous in All Forms

- Anxiety, including Extreme Panic Attacks
- Increased Blood Pressure, Increased heart rate
- Cardiac Arrest
- Decreased heart rate, low blood pressure
- Brain Seizures, Convulsions
- Tremors
- Can Become Unresponsive
- Vomiting
- Hallucinations, Psychotic Breaks
- Suicidal Thoughts and Tendencies
- Paranoia
- Kidney Failure
- Stroke
- Death

## Spice Dangerous in All Forms

- Chemical formulas can be hundreds of times stronger than the THC in marijuana
- Used in similar manner as marijuana
  - Smoked in pipes, joints, bongs
  - Vaporizers, e-cigarettes
  - Ingest Orally - liquid in drinks and food
  - Sometimes made into a tea
- Can Cause serious injury & death from one-time use
- Onset of effects may take about 5 to 10 minutes depending on use; typically lasts 10- 40 minutes or longer. Some reports for hours...

## Spice Users and Industry Lobbyist (Edited Video)



Source: <http://abcnews.go.com/Blotter/retailers-selling-legal-high-time-bombs-kids-doctor/story?id=13753898>

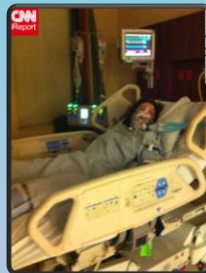
## SAMHSA – Spice Behavioral Health Advisory (2014)

- **“Spice tends to be marketed as a natural, safe and legal alternative to marijuana and many individuals who use it believe those claims to be true.”**
- **“A growing body of evidence suggests an association between using spice and having an acute episode of psychosis in individuals with no history of psychosis or triggering a psychotic episode among individuals with a history of psychosis.”**
- **“However, current evidence has not established a definitive, causal link; additional research in this area is important”.**

Source: <http://store.samhsa.gov/shin/content/SMA14-4858/SMA14-4858.pdf>  
Substance Abuse and Mental Health Services Administration (SAMHSA)

## 16 Year Old – Severe Strokes and Brain Damage from Smoking Spice

153,349 VIEWS 27K RECOMMENDATIONS 1,081 SHARES



Source: <http://ireport.cnn.com/docs/DOC-895582>

## Parents Warn Against Synthetic Marijuana After 19-Year-Old Son Dies Connor Reid Eckhardt



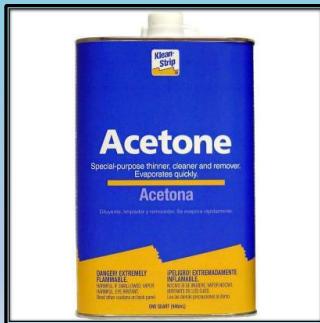
Source: <https://www.facebook.com/pages/Connor-Reid-Eckhardt/270455916494386>

## Spice Manufacturing

### Step 1 - Bulk Chemicals (Can Be Smoked in Powdered Form)



### Step 2 – Acetone to Liquefy Chemicals – Very Flammable and Risk of Explosions!



### Add Flavoring to the Mixture (Optional)



### Step 3- Load Your Sprayer or Mixer



### Step 4 – Spray Chemicals on a Plant Based Fuel Source



## Damiana – Most Popular Plant

- Damiana is a wild shrub that grows in Mexico, Central America, and the West Indies.
- The leaf and stem can be used to make medicine
- Historically, it was used mostly to increase sexual desire (as an aphrodisiac)
- One type of fuel source to burn and vaporize spice chemicals that are sprayed onto dried plant.



## “How To Make Spice” Small Scale Manufacturer (Video Edited)



Source: YouTube video by user "america4hemp"

## Video "How To Make Spice" Over 130,000 YouTube Views



Source: YouTube video by user "america4hemp"

## Domestic, Larger Scale Spice Manufacturing



## Large Scale Manufacturing



## Spice Laced with Fentanyl (06-16)

Arizona DEA agents bust nation's first-known Fentanyl-laced Spice lab



DEA discovers 1st fentanyl & spice lab in Arizona



## “Spice” U.S. Navy Dramatization & P.S.A. (Video)



Source: <https://www.youtube.com/watch?v=S-5Sm8rNPt8>

## Synthetic Stimulants

- “Bath Salts”
- And Many Additional Names...

## Understanding “Bath Salts”

- They are NOT legitimate bath salts
- Also Known As:
  - Research Chemicals
  - Plant Food
  - Novelty Powder
  - Glass Cleaner
  - Jewelry Cleaner
  - Shoe Deodorizer
  - Fertilizer
  - Toilet Bowl Cleaner
  - Meow or Meow Meow
  - Scouring Powder
- Originate in China or India, shipped to US through eastern European countries
- (Banned in United Kingdom and other European Countries)



## Bath Salts (Synthetic Cathinones)

- Sold in foil packages, vials, baggies, and small lip balm like containers/jars
- Millions of Dollars in Sales By Individuals



## Avoiding FDA Regulation – Mislabeled Products “Not for Human Consumption”



## Understanding “Bath Salts”

- Sold in sizes ranging from:
- .25 gram (1/4 gram “250 mg”)
- .5 gram vials (1/2 gram “500 mg”)
- 1 gram (1000 mg)



## Bath Salts Packaging



## White Girl, Scarface, Superman "Bath Salts"



## Understanding "Bath Salts"

- As dangerous as cocaine, crystal methamphetamine, PCP, Ecstasy and LSD. Used in the same manner as these controlled substances.
- **Methods of ingestion:**
  - Snorting (Bumping, pen caps, snuff)
  - Smoking (birthday cakes, head trip potpourri)
  - Injecting (slamming)
  - Oral, tablets , glass of water
  - "Bombing" wrapping a dose of powder in a piece of paper and swallowing it
  - Anal Suppositories

## Effects on Mind and Body

- Bath salts– onset of effects depends on method of ingestion, purity and potency of the chemical formula
- Symptoms can last from hours to days with flashback potential similar to LSD
- Reports of paranoia lasting for weeks and months after use has ended
- Unknown long-term effects

## Bath Salts - As Dangerous as Cocaine, Methamphetamine, Ecstasy, PCP and LSD



## Bath Salts Symptomatology

- |                            |                                |
|----------------------------|--------------------------------|
| – Anxiety                  | – Running nose                 |
| – Body tremors             | – Talkative                    |
| – Bruxism (Teeth Grinding) | – Headaches                    |
| – Dry mouth                | – Chest pains                  |
| – Euphoria                 | – Insomnia                     |
| – Exaggerated reflexes     |                                |
| – Eyelid and Leg tremors   | – <u>Risks From Some Users</u> |
| – Irritability             | <u>with extreme</u>            |
| – Redness to nasal area    | <u>symptomatology</u>          |
| – Restlessness             |                                |



## Bath Salts Symptomatology

- Extreme Paranoia
- Flashback Potential Similar to LSD Use
- Extraordinary Strength
- Vivid, Terrifying Hallucinations, Delusions, Fear
- Self Mutilation
- Psychotic Breaks, Psychosis
- Suicidal ideation or actions
- Excited Delirium
- Hyperthermia - Extremely High body temperatures 107-108 degrees Fahrenheit
- Homicidal Tendencies
- Stroke
- Death

## Possible Stages of Bath Salts

- Stimulant Effects
- Paranoid Delusions– Crisis Stage
- Excited Deliriums– Critical (toxic) Stage
  - An acute medical emergency requiring immediate medical assistance

### Safety Risks

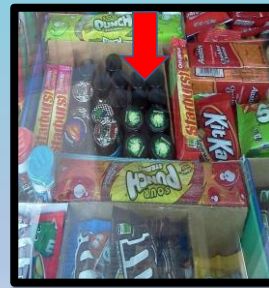
- Unknown Synergistic effects when combined/mixed with other drugs/alcohol
- Spice and Bath Salts can be combined and smoked! These drugs affect people differently

## U.S. Navy - Bath Salts Public Service Announcement



Source: [https://www.youtube.com/watch?v=mhlaHwnErBI&list=UU\\_qVcWp8T\\_J3GU0pyK67bUw&index=1](https://www.youtube.com/watch?v=mhlaHwnErBI&list=UU_qVcWp8T_J3GU0pyK67bUw&index=1)

## Retail -Where are Spice and Bath Salts Sold?



- **Spice and Bath Salts are sold at:**
- Dollar Discount Stores
- Liquor Stores
- Gas Stations
- Smoke Shops
- Internet Online Sales
- Adult Stores
- Street sales

## Large Profit Margins



- A 30 ounce container of REAL Bath Salts is only **\$5.00**
- What would it cost for a 30 ounce container of drugs **mislabeled** as Bath Salts? (\$15.00 per ¼ gram)
- **\$51,000.00 !!!**
- People selling **KNOW** this is a drug and don't care!
- Same with Spice!

## Update on Molly Not Just MDMA!

- "Molly" – Anything that mimics MDMA,
- Can Include Bath Salts
- An Ecstasy Dealer in San Diego, thought he was selling Ecstasy. When raided, substance was Bath Salts (Methylone)
- San Diego ABC Narcotics Case with employee selling Methylone as Ecstasy



Counterfeit tablets

Stamped as: "Superman" logo XTC



- Fentanyl
- Fluoroisobutyrylfentanyl
- Butyrylfentanyl
- Methamphetamine
- Chloroethcathinone
- Alpha-PPP
- Deschloroketamine
- Cocaine
- Levamisole
- Caffeine
- Lidocaine
- Carbamazepine
- TH-PVP
- U-47700
- 4-ANPP
- Diclazepam
- Flubromazepam
- Etizolam
- Deschloroetizolam
- Dibutylone

## Legislation and Bans

### Municipal Ordinances in CA Copies Available Upon Request

- \*City of Oceanside – Banned the possession and sales of Spice and Bath Salts. **\$500.00 Per Package Fine for sales. Updated Chemical formulas and classes** (Civil and Criminal Penalties)
- City of San Diego – Banned Possession and Sales with **UPDATED Chemical Formulas**
- \*San Marcos – Banned the possession and sales of Spice and bath salts (Civil Fine, Misdemeanor)
- \*City of Encinitas – Banned the sale and possession of Spice and Bath Salts
- City of Chula Vista – Sales are a Public Nuisance
- City of El Cajon – Sales are a Public Nuisance
- County of San Diego – Sales are a Public Nuisance

### California Sales Penalties for Bath Salts Versus Drugs They Mimic

State of California	Possession Personal Use	Sales Trans. Manuf.	Guns present	Locations schools, parks ,etc	Minors	Priors	Weight Enhanc ement
Bath Salts & Spice	<b>\$250 Fine, Then Misd.</b>	Up to 6 months and/or \$1,000	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>
Cocaine	Misd. (Prop 47)	Up to 7 Years	Up to 5 Yrs extra	Up to 5 Yrs. extra	Up to 9 Yrs.	Up to 3 Yrs extra	Up to 25 Yrs extra
Meth amphet amine	Misd. (Prop 47)	Up to 7 Years	Up to 5 Yrs extra	Up to 5 Yrs. extra	Up to 9 + 2 Yrs if Child under 16	Up to 3 Yrs extra	Up to 15 Yrs extra
PCP	Misd. (Prop 47)	Up to 7 Years	Up to 8 Years.	Up to 1Yr. extra	Up to 9 Years	Up to 3 Yrs extra	Up to 15 Yrs extra

### Federal Prosecutions

- **Federal Penalties**
  - Strict Penalties for Sales: **Felonies**
  - Schedule 1 Controlled Substances
  - Analog Prosecutions
  - Sellers can be Sentenced up to 30 years in Prison!
  - Up to 10 Million in Fines and Asset Seizures
- **California Penalties**
  - Misdemeanor, Up to 6 Months in Jail and/or up to a \$1,000 Fine

### Tip of the Iceberg... More NPS Drugs are Coming

- Requires a Paradigm Shift in How Government Legislates and/or quickly bans these emerging drugs!

## “New Drugs Killing San Diegans”

**New Psychoactive Substances**  
**7 new substances found by San Diego County ME during death investigations**

- Opioids**  
 Acetylfentanyl  
 Miragynine
- Bath Salts**  
 Methylene  
 Ethylene  
 Benzofuran (5-APB)
- Psychedelic**  
 Tryptamine  
 4-Methoxy-phencyclidine

Ricardo Ambriz, age 20, overdosed and died on a drug called 5-APB or “Benzo Fury”



Source: Facebook

Source: <http://www.countynewscenter.com/news/me-new-drugs-killing-san-diegans>

### ME: New Drugs Killing San Diegans



Jan Robinson, forensic toxicology laboratory manager for the Medical Examiner's Office, examines a chemical compound.

February 13, 2015 1:08pm

Last November, a 24-year-old San Diego County man bought and injected what he thought was heroin. Instead, it was a synthetic drug 10 times more powerful, and he died from the accidental overdose.

The drug turned out to be acetylfentanyl, and it was the first time the County Medical Examiner's Office identified the substance as the cause of a fatal overdose in San Diego.

Additionally, in the past year, medical examiner staff detected five other new synthetic drug compounds during death investigations. None had been seen in local deaths before, and three had never been identified in forensic autopsies anywhere in the United States.

Source: <http://www.countynewscenter.com/news/me-new-drugs-killing-san-diegans>

## Mitragynine “Kratom”

- Kratom is not controlled under the Controlled Substances Act. however, there may be some State regulations or prohibitions against the possession and use of Kratom.
- There is no legitimate medical use for Kratom in the United States.
- In addition, DEA has listed Kratom as a Drug and Chemical of Concern.



Source: DEA Drugs of Abuse 2015 Edition. A DEA Resource Guide

## W-18 Synthetic Opioid 100 Times More Potent than Fentanyl

**This new street drug is 10,000 times more potent than morphine, and now it's showing up in Canada and the U.S.**

By Katie Weather

It was first developed in a Canadian lab more than three decades ago, promising and potent — and intended to relieve pain in a less addictive way.

Labeled W-18, the synthetic opioid was the most powerful in a series of about 20 compounds concocted at the University of Alberta and patented in the U.S. and Canada in 1986.

But no pharmaceutical company would pick it up, so on a shelf the recipe sat. The research chemical is medical journals but never put to use. The compound was largely forgotten.

Then a Chinese chemist found it, and in his labway around the world started developing the drug for consumers in search of a cheap and legal high — one reports say is 100 times more potent than fentanyl and 10,000 stronger than morphine.

## U-47700 Opioid (06-06-16) At Least 50 Deaths

### New Synthetic Drug U-47700 Has States Rushing to Stop Spread

By BILL DRAPER, ASSOCIATED PRESS - KANSAS CITY, Mo. — Jun 6, 2016, 6:45 PM ET

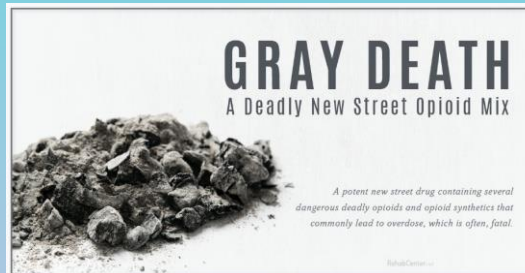
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58 SHARES

A new synthetic drug that can be purchased online and is connected to at least 50 deaths nationwide has several states scrambling to stop its spread, with Kansas law enforcement agencies seeking an emergency ban.

At least three other states — Ohio, Wyoming and Georgia — already have taken action to ban U-47700 after it was connected to overdoses. A spokeswoman for the U.S. Drug Enforcement Administration said that the agency is studying the opioid but hasn't yet moved to control it.

Nearly eight times more potent than morphine, U-47700 comes in various forms and can be injected, snorted or taken orally.



- More recently, fentanyl and fentanyl related substances have been combined with heroin and other synthetic opioids, such as U-47700, to create a deadly opioid mix

Image Source: <http://www.rehabcenter.net/gray-death-infographic/>

## Vaping Devices - Any Type of Drug



## Community Engagement

### Drug Use Can Hurt Your Career Plans and Limit Future Employment Opportunities!



### Drug Use Can Hurt Your Career Plans and Limit Future Employment Opportunities!

- All branches of the Armed Services have zero tolerance for illegal drug use, including Spice and Bath Salts.
- All Federal Government employees, including those at the Department of Defense and Department of Transportation, and anyone that drives a commercial vehicle are subject to random drug testing.
- Both San Diego County and the City of San Diego have pre-employment drug testing.
- As part of their hiring processes, Law Enforcement agencies ask questions regarding drug use history.
- Many local employers including Sea World, San Diego Zoo, Hilton, Best Buy and San Diego Gas and Electric have pre-employment drug testing.

Slide Credit: Joe Eberstein, San Diego County Marijuana Prevention Initiative

## Why Engage Others?

- Critical Need for Community, Local Leaders and Elected Representatives To Understand Synthetic Drug Dangers and Limitations Under Existing Laws
- Education, Awareness, Outreach Is Key To Prevention Efforts
- Local Ordinances and Best Practices For Local Level Solutions

Understanding, Engagement and Empowerment is Critical to Protecting Youth, Young Adults and Communities!

## How You Can Help

- Become Involved as an Individual and/or as an Organization
- Be a voice for change, talk to members of the public about synthetic drug dangers and encourage them to become involved!

## Help Identify Sellers of Synthetic Drugs

- If you do find a business that is selling, **please notify law enforcement**
- Business name with complete address
- Date observed selling?
- Selling Spice, bath salts, or both?
- Currently selling, past sales, or both?
- Where were drugs located in the business?
- Eyes and ears for law enforcement agencies

## Prevention Groups, DFC's and Prevention Providers!

- Great Resource for Education and Community Engagement!
- Funded to work with Community, including youth groups
- A well informed, educated Community Group can be Very Effective Advocates!
- They Can Also Be Eyes and Ears for Law Enforcement
- Retail Assessments for Alcohol and Other Drugs

## News Media

## Use Media Advocacy To:

- ✓ Frame The Issues
- ✓ Organize The Community – They Can Advocate for Change!
- ✓ Identify and Build Support for Solutions
- ✓ Increase Perception of Harm
- ✓ Change Social Norms
- ✓ Improve Quality of Life in The Community

## Spice Overdoses in Downtown San Diego



<http://www.sandiegouniontribune.com/news/2015/dec/05/synthetic-spice-drug-overdoses-warning/>

## EMS System Data for the City of San Diego

- **Spice poisoning calls in just the City of San Diego.**
- March, 2015 through December, 2017, more than **1,300 Ambulance Transports to hospital emergency departments** for treatment.
- **Millions of Dollars in Costs to EMS System**
- Three individuals had more than 10 separate hospital transports each, and one person had more than 20 separate transports!
- **One individual had 6 separate EMS transports in the same day!**

## Spice Poisonings San Diego 05-18-2016



## Live Interview on KUSI News May 19, 2016



## San Diego City Ordinance for New Psychoactive Substances (5-24-16)



## Resources (Official Sources)

- [California Poison Control System](#)  
– 1-800-222-1222
- [San Diego County Sheriff's Department Bath Salts and Spice Documents \(Warning Letter to Businesses, California Laws, News Release\)](#)  
<http://www.sdsheriff.net/bathsalts/index.html>

## Resources (Drug User Forums)

- <http://www.drugs-forum.com/index.php>  
– User Forums – “Research Chemicals” section
- <http://www.bluelight.ru/vb/>  
– Drug Users reviews and “street” info
- <http://www.erowid.org>  
– Personal experiences and research aspects

## Quotes

- "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has." - **Margaret Mead**
- "It's hard to fail, but it's worse never to have tried to succeed." – **Theodore Roosevelt**



## Questions and Answers



## Contact Information

- William Perno, SAY San Diego  
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Retired Deputy, San Diego County Sheriff's Department
- E-Mail: [wperno@saysandiego.org](mailto:wperno@saysandiego.org)
- Phone: 619-283-9624 Ext. 307
- <https://www.saysandiego.org>  
*Funded by the County of San Diego, Health and Human Services Agency,  
Behavioral Health Services*

