Street Drugs – Do Your Kids know More Than You?

(Part 2 of a 2 Part Presentation)

2017 – NCNP – Las Vegas

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Disclaimer

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Objectives

- Upon completion of this program the learner will be able to:
 - 1. Identify new trends in street drug use and legal highs, including the opioid epidemic
 - 2. Discuss some of the geographic, demographic and cultural factors of drug use
 - 3. Review signs, symptoms and treatment options of suspected drug use, withdrawal or overdose

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Synthetic Cannabinoids (eg: K2, Spice)

New Psychoactive Substances" (NPS) "Legal Highs"



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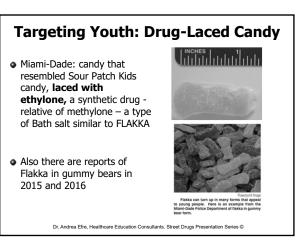
Drugs Targeting Teens

- WGN TV: December 6th, 2016: Naperville IL: Drug-laced candy sends 13 students to hospital. Symptoms of tachycardia, dizziness and dry mouth: thought to be liquid based marijuana
- DEA News: March 24th 2016: (BOISE, Idaho): Two men from Soldotna, Alaska, were indicted - synthetic cannabinoids (Spice) with flavor labels such as Mango, Grape, and Cotton Candy
- A Part
- WSB-TV 2: North Fulton County, GA. Police warning Seized nearly 20lbs of drug-laced candy from a home - gummy worms, peach rings and chocolate-covered caramels laced with THC

•

WFLA New 8: St Petersburg, FL: drug laced gummy worms sent 5 high school students to the hospital hospital after eating drug-laced gummy worms (one gummy tested +ve for THC)

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ABC News: SAN FRANCISCO August 8th, 2016

- Marijuana Edibles
- THC laced gummy candies
- 19 guests hospitalized at quinceañera (traditional 15th birthday party)



- 13/19 were under 18 years old including a 6vear-old child
- The 19 were hospitalized Saturday, but all of them were released by Monday
- Investigating: if candies were intentionally placed at the party to target children, which would be a serious crime, or accidental placement

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New Drug Trends – Legal Highs

- "legal highs," "designer drugs," or "research chemicals."
- Collectively known as "new psychoactive substances" (NPS)
 - e.g., "bath salts", "spice", "N-bombs"
- Synthetic alternatives to traditional illegal drugs of abuse
- Substances with stimulant or mood-altering properties whose sale or use may not be currently illegal
 - Designed to produce similar effects as cannabis, cocaine, methamphetamine, LSD and/or ecstasy, but structurally different enough to avoid the law
- Marketed:
 - Gas stations
 - Convenience stores
 - Gardening/plant stores
 - a Online



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New Drug Trends – Legal Highs

- Availability and "Not for Human Consumption" notice
- Law enforcement and legislation challenges
- The internet also offers users information on how to use the drugs and how to share their highs and other drug-related experiences online
- Google search for "legal high" (44,800,000 results/ 0.43 seconds) K2 and Spice are high on the google search listings
- You can seek questions like: "How will taking a dose of this product affect me?"
- The Names are deceiving
- The results are unpredictable



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Cannabinoids

- Receptor CB₁ mainly in the brain, CNS. Lungs, liver and kidneys
- Receptor CB₂ mainly immune system and hematopoietic cell
- Tetrahydrocannabinol (THC) psychoactive "high" effect (Δ8THC and Δ9THC)
 - Mostly associated with Marijuana (flower/bud)
 - Positive effects: analgesic, anti-spasmodic, anti-tremor, anti-inflammatory. appetite stimulant and anti-emetic properties
 - Dab/Wax is an example of a very potent high level of THC psychoactive compound: up to 80% THC, (range 50-75%)
- Cannabidiol (CBD) medical effects without the "high"
 - CBC is mostly associated with hemp and CBD-rich cannabis plants
 - Positive effects: anti-inflammatory, anti-convulsant, anti-psychotic, antioxidant, neuroprotective and immunomodulatory effects
- Synthetic Cannabinoids (like Spice and K2) have no <u>natural</u> THC or CBD. They are synthesized to mimic the psychoactive effects of THC Dr. Andrea Efre, Healthcare Education Consultants. Street Drugs Presentation Series @

Synthetic Cannabinoid Street Names: Hundreds of brands

Gangsta

Go Gaine

Killa Gorilla

Moon Rocks

Genie

Angry Birds

- Ak-47
- Aroma Bhang
- Banana Cream
 - Happy Joker Herbal `incense'
 - K2
- Bliss
- Black Mamba Bombay Blue
- Cherry bombs
- Cloud 9
- Dr. Feel Good
- Extreme Rush
- Fake weed
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- - Outer Space
 - Scooby Snax Sexy Monkey
 - Skunk
 - Smacked
 - Smoking Santa
 - Spice
 - SpicyXXX,
 - Tomcat WANTED
 - Yucatan Zohai
- Ninja

Mojo

- Nuke
- Mr. Nice Guy

Synthetic Cannabinoid

- Plant material Sprayed/laced with synthetic cannabinoids
- Chemically similar to THC
- Mimic the Psychoactive ingredients in marijuana (THC)
- Act on cannabinoid receptors CB 1 and CB2 throughout the body (just like THC)
- It is not THC so it is generally NOT detectable by usual drug screening methods



• How is it used:

• Why is it used:

Most often smoked

Intravenously - rare

• Mimic delirious effects of THC

Giddiness and euphoria (high)

Sometimes made into Tea

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Synthetic Cannabinoid • Commonly purchased in head shops, tobacco shops, gas stations, retail outlets, and the Internet Packaged Not for human consumption Users consider it a "Legal high" • • The chemical compounds typically include HU-210, HU-211, JWH-018, and/or JWH-073 >100 such substances have been synthesized and identified to date Many states have banned substances involved in making it However, once banned, the compound is modified to avoid laws

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Synthetic Cannabinoid: Recent Events

- August 25th: Austin-Travis County EMS treated 52 patients using K2, 17 additional followed making the total 69 people (no deaths
- August 19th: Los Angeles police suspect a bad batch "spice" sickened 50 people in the Skid Row area and then another 14 on Monday August 22nd
- July: Brooklyn, New York 33 people were hospitalized after authorities responded to calls of "K2" overdoses at one intersection
 - the drug was street name AK-47 24 Karat Gold = 85 x as potent as plant-grown marijuana (THC)
- July 14, 2016: Synthetic Cannabinoid Advisory New York City 130 people were taken to emergency rooms in 2 days (from July 11 through July 13) after using synthetic marijuana
- March: People high on "spice" look like 'zombies' laying around the park in Clearwater, FL. Also, Spice sickened several dozen people in St. Petersburg, FL over a few weeks in March

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- One of the original most popular herbal incense blends on the market
- Original, Hydro, and flavored
- New 2nd Generation
- Available for next day shipping •
- \$20.99 for 4 grams (16.99 for original)
- \$37.99 for 10 grams 2nd generation







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Side Effects

- Tachycardia and Hypertension
- ECG changes (including ST elevation, T wave changes and QTc prolongation
- Arrhythmias and BBB
- Palpitations
- Chest pain
- High doses = bradycardia and hypotension = Cardiac hypoperfusion
- Decreased Coronary pressure and myocardial ischemia
- Cardiotoxicity

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- Hypokalaemia
- Dyspnea
- Diaphoresis
- Appetite changes, Nausea and Vomiting
- Hypertonia
- Muscle spasms
- Tremors and seizures
- Acute kidney injury and Renal dysfunction

Side Effects

K2 EFFECTS

Suicidal Thouaht Hallud

- Changes in neurological status
- Decreased responsiveness
- Acute cerebral ischemia
- Agitation, irritability, drowsiness, confusion
- Anxiety and panic attacks
- Changes in perception
- Intense hallucinations, delusions
- Paranoia and psychosis
- Psychotic episodes, and suicidal fixations
- It appears to be stored in the body for long periods of time, and therefore the long-term effects are not fully known

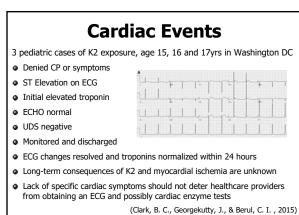
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Psychotic Events from Cannabis vs Synthetic Cannabinoid

- Cannabis use is associated with an increased risk of psychosis and schizophrenia because of the tetrahydrocannabinol (THC)
- Cannabis high in cannabidiol (CBD) has fewer psychotic experiences
- Synthetic cannabinoid receptor agonists (SCRAs) are full agonists
- They are more potent than natural THC and contain no CBD
- Therefore, cause more frequent and more severe unwanted negative • effects, especially in younger, inexperienced users
- Psychosis seem to occur relatively often with synthetic cannabinoids, presumably due to their high potency and the absence of CBD

(van Amsterdam, J., Brunt, T., & van den Brink, W., 2015)

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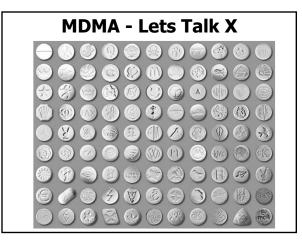
Monitor closely and be prepared to resuscitate

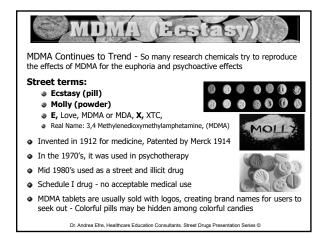
cannabinoids

Fluids

- Maybe consider lipids a small study in Turkey had success in recovering (cardio and neuro effects) in 3 out of 4 patients
 - Lipid-sink-theory Drugs that are free in the intravascular space are thought to be trapped within the intravenous lipid emulsion and this reduces the concentration
 - Unstable patients presenting to ED with acute synthetic cannabinoid intoxication may be candidates for intravenous lipid emulsion treatment
 - (Aksel, G., Güneysel, Ö., Taşyürek, T., Kozan, E., & Çevik, Ş. E. 2015)

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How is MDMA Used?

- Can be snorted, injected, and rectally inserted, but is usually taken orally in tablet form
- Effects last approximately 4 to 6 hours
- Considered a "party drug."
- Rarely used alone, commonly used with alcohol and/or marijuana
 - "Candy flipping" is the combination of MDMA and LSD
 - Stacking" is taking three MDMA or more tablets at once
 - "Piggy-backing" is taking a series of tablets over a short period of time

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Molly - MDMA

- Molly—slang for "molecular"
- Thought to contain "Pure" MDMA
- Pure crystalline powder, or can be powder capsules capsules for \$8 to \$40 per pill depending on location
- Also available as Mollywatr (glow-in-the-dark container) Usually high priced and exclusive
- Molly had a surge in interest in the past few years, being celebrated frequently by actors and musicians
- "Molly" = street term also used to describe some "Bath salts" such as Methylone: (bk-MDMA) or Mephodrone (meow meow) (especially in the UK)
- Molly = street term for Methampetamine/meth combos
- User may not get what they expected with Molly

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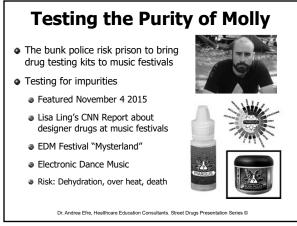
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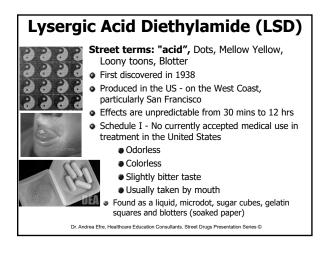


MUMA (Ecstasy)		
Uses (why people use) Produces energy and euphoria Suppresses need to eat, drink, or sleep 	 Side Effects Dilated pupils, blurred vision Nausea, Faintness 	
 Enables user to endure all-night or 2-3 day parties 	 Dry mouth, Dehydration Chills/Sweating 	
 Eliminates anxiety Increases talkativeness and giggling 	 Tachycardia/Hypertension Overheated - ↑ core temp 	
 Reduces inhibitions 	 Hyperthermia 107-109°F 	

- Produces feelings of empathy/affection for others
- Enjoying touching
- Enjoying being touched
- Making it a <u>Rape Drug</u>
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- Loss of consciousness
- Confusion & Panic attacks
- Jaw & Muscle tension/cramps
- Seizures
- Hepatic/Renal failure & Death







Reason for adjunct paraphernalia

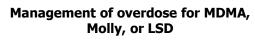
- Enhance the experience with lights and sound (glow sticks)
- Jaw muscle tension, Teeth grinding and involuntary clenching

Signs of Use/Side Effects of LSD

- Flevated BP
- Tachycardia, Palpitations
- Hyperthermia
- Elevated blood sugar
- Dilated pupils
- Tremors
- Gooseflesh
- Perfuse perspiration
- Hallucinations, delusions and paranoia
- Panic reactions

- Flashbacks are unpredictable
- Occur spontaneously
- Vary in frequency and duration
- May occur days up to months after use
- Increase occurrence during times of stress





- Treat as a Medical Emergency Call 911 if not in the hospital
 - Stabilize (ABC's), Oxygen, Monitor, IV
 - Code Cart May need defibrillator
 - Prepare to intubate
- No specific antidote is known
- Benzodiazepines for seizures and muscle spasms
- Treat Hyperthermia use cold water, fans, cooling blankets, and anti-pyretics (Tylenol)
- Additional treatment depends on the presenting complaint and organ system involved

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Cathinones – Natural vs Synthetic

Natural Cathinone Khat (Quat, Cot, Tea)

- Natural Cathinone
- Grows in East Africa and in southern Arabia
- DEA reports that 10 million people worldwide chew khat
- Cultural, usually males
- Hallucinogenic: Excitement, Euphoria, Hyper-manic states, Hyperactivity, talkative, paranoia, delusions of grandeur

Synthetic Cathinone

"Bath salts" (group name)

- Like Amphetamines, they stimulate the CNS and have sympathomimetic features
- Emerged as legal alternatives to amphetamine, ecstasy, or cocaine known as 'legal highs'

(Valentine et al, 2013)



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Synthetic Cathinones (General)

Stimulant effects similar to cocaine, amphetamines, Khat, LSD, and MDMA



- Alpha PVP Flakka
- Mephedrone: Meow-Meow Methylone: bk-MDMA Not
- to be confused MDMA = Ecstasy
- Ethylone and Butylone

Mostly sold on the Internet

- Also head shops, novelty stores, convenience stores, and gas stations
- Usually marketed with the warning "Not intended for human consumption."
- Marketed as "bath salts" to evade detection (Not to confuse with bath products or Epsom salts)
- Users want to get high without engaging in criminal activity
- Originally synthesized in the 1920s
- Recreational in UK & Europe 2009, USA in 2010

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Increases dopamine, serotonin, and norepinephrine in synapses Duration: 4 to 8 hours - depending on substance/route Route: Sniffing/snorting (Most common) Oral ingestion Smoking, vaporization, Intravenous, intramuscular Rectal insertion MDPV (bath salts) loses potency when Dissolved, rarely used IV/IM Desired effects: Reported by users: Increased energy Empathy, Openness Increased libido, Enhanced Sexual experience

User Reports: Highly addictive with intense cravings

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FSU Student Ate Victims Face

- Monday August 15th 2016
- The Martin County Sheriff's Office
- 19 year old FSU Student accused of murdering a married couple and biting off one of the victim's faces
- A neighbor initially intervened but was allegedly stabbed
- Unprovoked and random attack on two victims who were standing in their garage
- Possible use of bath salts, maybe Flakka



- Detectives said: he had enormous strength and was shouting incoherent things
- It took a K9, a taser and three deputies to reign him in away from the victims

Most Common Bath salts

- MDPV (Bath salts, Ivory Wave, plant food....)
- Alpha PVP (Flakka, gravel)
 - MDPV and o-PVP Both are very potent and selective inhibitors of dopamine and noradrenaline transporters - 10x more potent than cocaine or methamphetamine with a 3-4 hour duration
- Mephedrone: (Meow-Meow, M-cat, Mad Cow)
 Desired Effects similar to MDMA (ecstasy, X)
- Methylone: (room odorizer" or "Explosion)
 bk-MDMA Not to be confused MDMA = Ecstasy
 Mephedrone mixed with methylone = bubbles
 - = hepicarone mixed widh_mearyione = babbles
- Ethylone and Butylone
 Desired effects for all three drug groups is to be similar to MDMA

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Effects of Bath salts

- Users are usually looking for euphoria, sexual energy and drive and increased sociability
- News headlines are sensational, usually involving removing clothing and ruining
- December 29, 2016: Tampa man running naked on a major 6 lane road and jumping cars and repeatedly bashed his head into the windshield
 Bath salts or Flakka believed to

be responsible

 Florida man high on flakka attacked officer

Melbourne, FL -

April 15 2015

- "I am God"
 Committed a sexual
- act on a tree

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Side Effects of Bath Salts

Withdrawal

Depression

Anxiety

Tremors

Problems

Paranoia

sleeping

Symptoms

Side effects

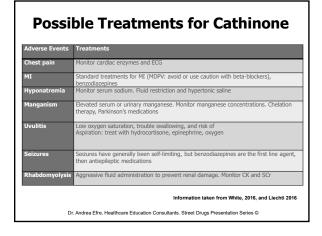
- Psychosis, agitation, combative behavior,
- Delusions and paranoia and prolonged insomnia
- Sympathomimetic toxidrome:

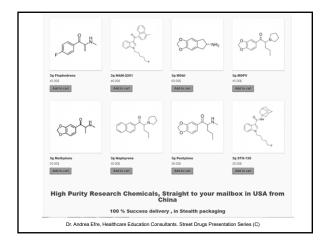
typically includes hypertension, tachycardia, mydriasis, agitation, and sweating

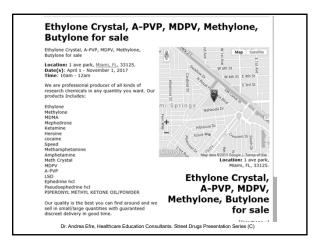
- Chest pain
- Deadly effect: Hyperthermia 105-106 f
- · Leading to kidney failure, and rhabdomyolysis

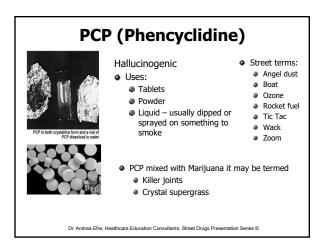
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Possible Treatments for Cathinone	
Adverse Events	Treatments
Psychosis, agitation, anxiety	Benzodiazepines are first line treatment, then antipsychotics. Haloperidol without benzodiazepines is generally not recommended because seizure and dysrhythmia thresholds are lowered and negative drug induced psychological effects including anxiety may increase – it may also worsen hyperthermia
Hyperthermia	Physical cooling, and relaxation with benzodiadepines. Antipyretics may not be effective
Tachycardia	Negative chronotropic agents
Hypertension	Antihypertensives: primarily with nitrates. β -blockers should be avoided because of unopposed o-adrenergic stimulation resulting in further increases in blood pressure
	Information taken from White, 2016, and Liechti 2016
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- PCP is a white crystalline powder that is readily soluble in water or alcohol. (bitter chemical taste)
- Available in tablets, capsules, and colored powders
- Usually snorted, smoked, or ingested
- Distorts perceptions of sight and sound
- Produces feelings of detachment (dissociation) from the environment and self
- Distorts perception of pain

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Loss of balance

Nausea, vomiting

Respiratory failure

Kidney failure

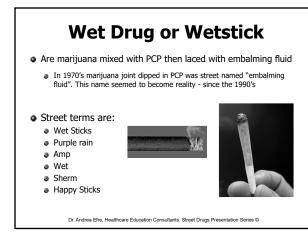
Blackouts

Seizures

Coma

ø Death

ø dizziness



PCP (Phencyclidine)

- Expected Sx of use or OD
 - Agitated and irrational
 - Terrifying hallucinations
 - Paranoid delusional thinking
 - Paranoia and catatonia
 - No awareness of pain
 - Anger/ Rage / violence
 - Overwhelming strength
 - Suicidal tendencies

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General Chemicals and New Psychoactive Substances (NPSs)

- New Psychoactive Substances (NPS)
- May be referred to by their chemical names or a brand name
- Usually contain hallucinogenics biochemically characterized as analogs of mescaline or LSD
 - Mescaline is a natural hallucinogenic phenethylamine compound found in the peyote cactus
 - Phenethylamine hallucinogens similar to the effects of Mecaline
 Eg: Bromo DragonFly (B-Fly) Ethylone and Butylone
 - Tryptamine hallucinogens are similar to LSD
 - EG: N-Bomb (Smiles), DT, 2C-B (Smiles)

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Bromo DragonFly

More Street Term: B-Fly, Fly or 2C-B-fly Nexus, 2's, Toonies, Bromo, Spectrum, Venu

- Chemical: 4-Bromo-2,5dimethoxyphenethylamine
- Psychedelic drug Related to phenethylamine (Mescaline) family
- Extremely potent hallucinogen
- Psychedelic effects that last 6–8 hours, or up to 12 hours in larger doses. Sometimes up to 3 days
- USA: Schedule I control substance
- Drug of choice for club drug in Colombia
- Vasoconstriction: extremity tissue necrosis
 Seizures,
- Respiratory distress
- Hepatic and renal failure

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N-bomb

N-Bomb: Smiles, 25I, 25C, 25B and "legal acid"

- Chemical: 25I-NBOMe, 25C-NBOMe, and 25B-NBOMe
- Almost exclusively Made in China marketed as "LSD safe alternative"
 - Sublingual/Buccal last 6–10 hours
 - Last 4–6 hours when inhaled
 - Duration up to 12 hours
- Small amounts can cause:
 - Seizures, MI, Cardiac or Respiratory Arrest and death
 Deaths are recorded in USA
- Prices: \$10-15 per hit
- Bulk: 100mg=\$100, 250mg=\$225, 500mg=\$400, 1000mg=\$750
- The LSD analog 25I-NBOMe was the most common hallucinogen detected as part of our 4-year surveillance program in Arkansas

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Severe clinical toxicity associated with analytically confirmed recreational use of 25I–NBOMe: case series

- Study: Seven patients, all young adult males, presented to hospitals in the northeast of England with clinical toxicity after recreational drug use of 25I-NBOMe in January 2013
 - **Side effects:** tachycardia (n = 7), hypertension (4), agitation (6), aggression, visual and auditory hallucinations (6), seizures (3), hyperpyrexia (3), clonus (2), elevated white cell count (2), elevated creatine kinase (7), metabolic acidosis (3), and acute kidney injury (1).

Hill et al, 2013

DRAGONFL

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Diagnosis and Treatments

- Diagnosis mostly based on history and presenting behavior
- Routine drug screens do not detect bath salt compounds
- Some commercial kits are sold, but rarely available at the bedside
- Management mostly supportive

25I-NBOM

- Aggressive IV hydration
- Benzodiazepines
 - May assist in dampen excessive sympathetic outflow
- Close monitoring in the ICU setting
- Treat Hyperthermia use cold water, fans, cooling blankets, and anti-pyretics (Tylenol)







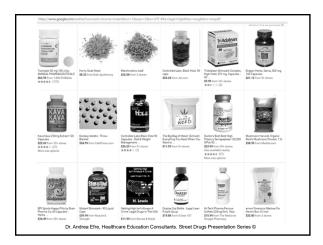
Benzo Fury or 6-APB • Colorless stimulant, sold in powder and pellet or tablet form for oral consumption (may be snorted) Phenethylamine and amphetamine classes "research drug" - "not for human consumption" • Currently unscheduled in the U.S. • \$15-16 U.S. dollars per pill/pellet • Effect within 30-60 minutes, may last up to 10 hours Affects and side effects are the similar to MDMA (Ecstasy): • Alertness, energy, euphoria, feelings of peace and love toward others, tingling feelings, and intense sexual responses Tightening of jaw muscles, raised body temperature, tachycardia, anxiety/panic attacks and paranoid/confusion

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• There are multiple websites – Biggest supplier in UK

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Betel Nut

- Psychoactive stimulant
- Mood-enhancing effects
- The areca nut is the seed of the areca palm (Areca catechu) a feathery palm tree
- Grows tropical Pacific, Southeast Asia, South China, India, Japan, Philippines, and parts of east Africa
- First century AD it was used to improve mouth health (in Asia)
- Now is thought to cause mouth and throat CA

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- Desired effects
- Increase alertness
- Increase stamina, a sense of well-being,
- Euphoria,
- Increase salivation and
- Stimulate the appetite
- March 3rd, 2017:
- Ohio police crack down on imported stimulant used by teens to get high
- http://fox8.com/2017/03/03/ohio-police-crack-down-on-imported-stimulant-used-byteens/

Smoking Alcohol

Become drunk without the

• Vapor inhalation takes the

Handovers may be reduced

person from sober to drunk

extra calories

within seconds

How is this done?

- Use a plastic bottle, fill with alcohol and seal with a cork
- A hand tire pump is then used to pump air into the bottle to increase the pressure
- A vapor develops when the pressure ٠ mixes with the alcohol
- Once the vapor is seen, the cork is pulled off and the vapors are inhaled though the mouth and nose
- Sometimes used with dry ice: Once ٥ the dry ice mixes with the alcohol, a vapor will develop

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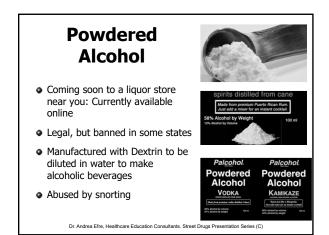
Smoking Alcohol



Risk of overdose: When a person <u>drinks</u> too much alcohol, the body induces

- vomiting to eliminate it. This does not happen with smoking alcohol.
- Smoke alcohol bypasses the stomach and intestines and is not broken down in the liver.
- The person does not have this safety net to prevent alcohol poisoning.
- Overdose risk is much higher due to the fact that the body has not broken down the alcohol.

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1,3,7-trimethylxanthine

- Legal Highs 1,3,7-trimethylxanthine which is caffeine
 - Smiley Face (powder) is pure caffeineSnow Blow (powder) and Blowout (powder)
 - caffeine mixed with taurine and vitamin B
 - POW (powder)

caffeine with the black pepper extract bioperine

Bosh (2 pill pack) or Jester (2 pill pack)

- Both are caffeine, guarana and cola nut extract mixed in big red capsules
- For more information on the effects this blogger had, visit the website: https://www.vice.com/en_ca/article/i-tried-every-legal-high-left-on-the-market

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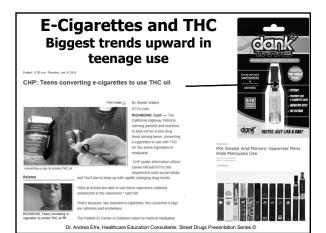
Caffeine Powder

- Overdose lead to the death of an Ohio high school
- Prompted the FDA to issue a safety advisory about caffeine powders
- Bulk bags of pure caffeine powder are readily available online, and attractive to young people for energy/stimulation or for help losing weight
- Just a teaspoon of pure caffeine powder is equivalent to about 25 cups of coffee—a lethal amount



- Arrhythmias, seizures, vomiting, diarrhea, and disorientation, death
- The FDA recommends that consumers avoid caffeine powder and parents be alert to their hazards

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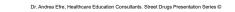


Do You Dab? THC – Wax/Dab - "dabbing" Potent - high level of THC (range 50-80%)

- Marijuana joint averages 20%
 Marijuana is soaked in a solvent such as butane which extracts the cannabinoids
- Produced into : Viscous oil, hardened waxy substance, or brittle/glassy pieces
- Smoked, water pipe, vaped, E-cigarette, Edibles/ Drinks

Side Effects:

- Scary vision/Hallucinations
- Psychosis/Mental health issues
- Tachycardia and Hypertension
- Increase in stomach acid



Do You Drip?

February 7th, 2017

- NIH Published research on Dripping in teens
- "dripping" = placing drops of e-liquids directly onto heated atomizers
- Study finds one in four high school e-cigarette users have tried "dripping"
- Why do users like it?
- Produce thicker vapor cloud (63.5%)
 Improve flavors (38.7%)
- Produce stronger throat hit (27.7%)
- Concern:
 - Increase nicotine, toxins, and carcinogens

E-Cigarettes and "Dripping" Among High-School Youth published in Pediatrics, go to: http://pediatrics.aappublications.org/content/early/2017/02/02/peds.2016-3224

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Summary of Management for Intoxication of Synthetics

- Subjective history is very important: get as much of the story as you can from the patient or friends
- ${\ensuremath{\bullet}}$ Treat as a Medical Emergency, monitor closely and prepare for the worst
 - Stabilize (ABC's), Oxygen, Monitor, 2 IV's
 - Code Cart –May need defibrillator
 - Prepare to intubate
- No specific antidote is known for most synthetics
- Benzodiazepines may help for seizures and muscle spasms
- Treat Hyperthermia use cold water, fans, cooling blankets, and antipyretics (Tylenol)
- Additional treatment depends on the presenting complaint and organ system involved
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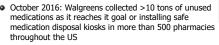
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National Prescription Drug Take-Back Effort

- The National Prescription Drug Take Back Day: October 28, 2017, 10:00 am to 2:00 pm.
- DEA National Take Back Initiative
 - National drug take back days twice a year
 - April 29th, 2017 DEA reports 900,386 pounds (450 tons) at close to 5,500 sites across the nation.
- Collection sites listed at: <u>http://www.deadiversion.usdoj.gov/drug_disposal/takeback/index.html</u>



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- Questions?
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TO DRUGS

JUST SAY