



New Trends in Street Drugs

September 14th, 2015

Rochester, New York

Dr. Andrea Efre
DNP, ARNP, ANP-BC, FNP-C

Nurse Practitioner
and
Professor in Graduate Nursing

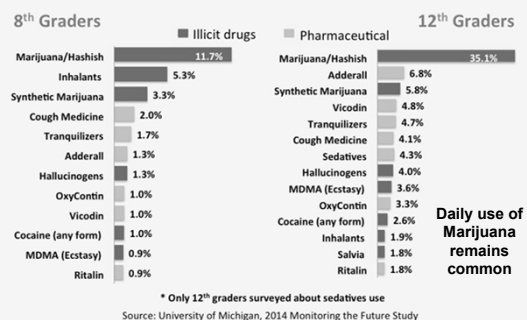


Objectives

- Upon completion of this program the learner will be able to:
 1. Identify new trends in street drug use and legal highs
 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

NIH: Monitoring the Future 2014

Top Drugs among 8th and 12th Graders,
Past Year Use



New Trends in Street Drugs

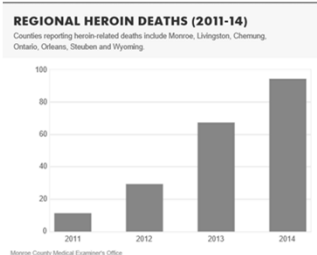
- **National Trends:**
 - Prescription drugs are still a problem but turning to **Heroin** as an alternative
 - Cocaine, Meth and Heroin are regional
 - Hallucinogenic: LSD (Acid) and MDMA (Ecstasy, Molly)
 - Methamphetamine – Regional
 - Marijuana use and dependence has risen (plus introduction of Wax/Dabs)
 - **Synthetic cannabinoids** (K2 and Spice)
 - Synthetic Cathinones (Bath Salts, **Flakka**)
 - Chemical Drugs – EG: 2C-I, N-Bomb, B-Fly, Internet Purchases – “Legal Highs”

Rochester Trends

Heroin:

Dr. Jeremy Cushman,
Monroe County Interim
Health Commissioner:

There were 94 heroin-related deaths in 2014 (triple that of 2012)



- More than 180 doses of Naloxone were given in last year to reverse heroin overdose

Old Drug – New Trends... Heroin

May be smoked snorted or injected
Recently used as an alternative to Rx drugs

Cutting Heroin: When other substances are used to increase the bulk:

- Talcum powder
- Dextrose
- Flour
- Mannitol



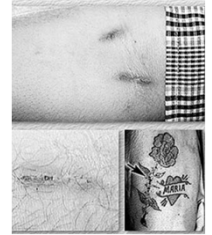
Symptoms of Heroin Use

Short Term Effects

- Confusion, Disorientation, Delirium
- Cold and clammy skin
- "Rush" feeling a surge of euphoria
 - Accompanied by a warm flushing of the skin
 - Dry mouth, and heavy extremities
- "On the Nod" following the initial euphoria, this is a wakeful and drowsy state

Long Term Effects of Heroin

- Pulmonary complications - Including pneumonia
 - Organ complications (including Liver disease) and vessel damage due to the additives that the heroin was cut with
- Needle Users Long Term Effects
 - Endocarditis
 - Collapsed veins
 - Abscesses
 - Cellulites
 - Infected sites
 - HIV, Hep B and C in needle users



Signs of Overdose

- Opioid OD triad (observed in Heroin and opiates)
 - Coma
 - Respiratory depression and failure
 - Depression of CNS – Miosis - pin point pupils
- Convulsions (Seizures)
- Hypoxia and Cyanosis
- Hypotension
- Bradycardia
- Respiratory depression – Prepare to intubate

If found in community: Call 911 - Must go to ER –
Even if Naloxone (Narcan) given (short 1/2 life)

Withdrawal

- Drug craving
- Restlessness, Insomnia
- Muscle and bone pain
- Vomiting and diarrhea
- Cold flashes with Piloerection (goose bumps know as "cold turkey")
- Kicking movements ("kicking the habit")
- Withdrawal symptoms peak between 48 and 72 hours and subside after about a week.
- Sudden withdrawal by heavily dependent users in poor health is occasionally fatal (less dangerous than alcohol or barbiturate withdrawal)
- Use in pregnancy leads to Neonatal abstinence Syndrome (NAS) in the baby

Krokodil

- "Krokodil," a toxic homemade opioid
- Made by combining codeine tablets with various toxic chemicals including lighter fluid and industrial cleaners
- Used as cheap heroin substitute in poor rural areas of Russia –
- In 2011, it was estimated that as many as 2 million Russians were addicted
- Has similar effects in the brain as heroin, but more powerful and has a shorter duration.
- Spread into Europe - Germany, France, Belgium, Sweden, Norway, Czech Republic, and Ukraine
- Has recently been featured in news reports alleging its appearance in parts of the United States
- Case reported in St. Louis - (Thekkemuriyi, John, & Pillai, 2014)



Krokodil

- The flesh destroyed by krokodil becomes gangrenous, and, in some cases, limb amputation has been necessary to save a user's life.
- Users often present with multiple scabs and skin infections.
- Users often smell of iodine
- **Krokodil gets its name from the scaly, gray-green dead skin that forms at the site of an injection.**



Krokodil



Krokodil Use Symptoms



- U.S., many are hoping that the pictures of flesh rotting off the bone like the following will be enough to discourage any potential Krokodil users from ever trying this devastating drug.

2015 Drug Trends: Cocaine

Cocaine Powder

- Cocaine is a **White crystalline powder**
- Freely soluble in water**
- Popular method:** "Snort" lines with a straw, rolled up paper or \$ bill

Crack Cocaine

- All you need is:**
 - Cocaine, Baking Soda, Water, Heat
- 'Free' the cocaine alkaloid 'base' from the salt
- No salt = ↑ combustion = ↑ Smoke**
- Not soluble**
- Intense high lasts 5-30 mins**



Signs of Overdose of Cocaine

- Tachycardia and Hypertension
- Arrhythmias, Widened QRS/Q and prolonged QT segment
- MI/ ACS/ Coronary artery spasms that cause MI
- V-Fib/Cardiac arrest (High doses)
- Tremors, hallucinations and delirium
- Agitated (excited) delirium
- Seizures and convulsions
- Hyperthermia (Dopaminergic regulation of core temperature)
- Rhabdomyolysis (from Dopaminergic changes)
- Respiratory arrest
- Aortic Dissection
- Emboli may occur from injection

Medications and Cocaine

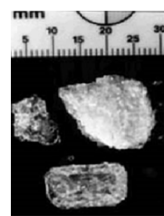
Treatments:

- Charcoal - Oral ingestion (especially stuffers/packers)
- Benzodiazepines and vasodilators for HTN (nitroprusside and NTG)
- Ventricular arrhythmias may respond to **sodium bicarbonate** (effects of cocaine on the Na⁺ Channels), **lidocaine** (in combo with Benzodiazepines) and **Magnesium**

Medications to Avoid:

- Avoid Beta-blockers** - unopposed alpha responses (↑BP, ↓Coronary blood flow, ↓CO)
- Avoid Calcium Channel blockers** (↑ ingested cocaine from GI, and may ↑ ICP). **Avoid** Nifedipine (Procardia, Adalat) ↑ seizures
- Avoid some antiarrhythmics:** quinidine, procainamide, and disopyramide (Norpace) (class 1a) > QRS and QT intervals and slows the metabolism of cocaine

Methamphetamine



Methamphetamine crystals

- A white odorless powder that easily dissolves in water or alcohol and bitter-tasting

Street terms are:

- Speed
- Meth
- Poor man's Cocaine
- Crystal meth
- Crystal
- Chalk
- Crank
- Uppers
- Black Beauties
- Tweak
- Glass
- Ice
- Amphetamines
- Bikers Coffee
- Yaba (pills)
- Yellow Bam

Use/Route:

- Oral, Snorting, Smoking, IV or Rectal (Bootie bump)

What does Meth look like?



Short Term Effects

- Smoking or IV provides an intense sensation, called a "rush" or "flash,"
- Lasts only a few minutes and is described as extreme pleasure
- Oral, intranasal or rectal use Produces euphoria - a high, but not a rush



Long Term Effects

- Skin abscesses appear as chemicals rise to the surface and Teeth rot from gum line
- Acute lead poisoning is a potential risk for methamphetamine abusers
- Risk of Parkinson's and alzheimers
- Heart failure
- Brain damage
- Stroke
- Epilepsy

Signs of Overdose of Methamphetamine

Symptoms of use and signs of overdose are very similar to cocaine

- **Hyperthermia**
- **Convulsions/seizures**
- **Anxiety, confusion, depression**
- **Chronic fatigue, insomnia**
- **Delusions, paranoia, aggression, hallucinations**
- **Toxic psychosis**

Treatment discussed later

MDMA (Ecstasy)

Street terms:

- **Ecstasy (pill)**
- **Molly (powder)**

Also known as:

- XTC, X
- Adam
- Hug drug
- MDMA or MDA
- Dove
- Love, E



MDMA (Ecstasy)

- 3,4 Methylendioxyethylamphetamine, (MDMA)
- Invented in 1912 for medicine, Patented by Merck 1914
- In the 1970's, it was used in psychotherapy
- Mid 1980's used as a street and illicit drug
- Schedule I drug with no current acceptable medical use
- MDMA tablets are usually sold with logos, creating brand names for users to seek out
- Colorful pills may be hidden among colorful candies

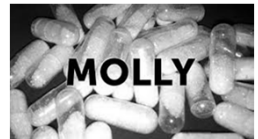
MDMA (Ecstasy)

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 mixed with alcohol and 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

Molly - MDMA

- Molly—slang for "molecular"
- Usually contains Pure MDMA
 - Ecstasy often has additives such as caffeine or Methamphetamine
- Pure crystalline powder, or can be capsules containing powder
- Molly = street term to describe some "Bathsalts" such as Methylone: (bk-MDMA) or Mephodrone (meow meow) (especially in the UK)
- Molly = street term for Methamphetamine/meth combos
- User may not get what they expected with Molly



Molly - MDMA

- Molly can be purchased in capsules for \$8 to \$40 per pill depending on location
- Molly had a surge in interest in the past few years, being celebrated frequently by actors and musicians
- Molly also comes in the form of high-priced, specially branded water, called Mollywatr (glow-in-the-dark container).



MDMA (Ecstasy)

Uses (why people use)

- MDMA in any form produces energy and euphoria
- Suppresses the need to eat, drink, or sleep
- Enables club-scene users to endure all-night / 2-3 day parties
- Eliminates anxiety
- Giggling uncontrollably
- Reduces inhibitions
- Produces feelings of empathy/affection for others
- Talking excessively
- Enjoying touching
- Enjoying being touched
- **Making it a Rape Drug**

MDMA (Ecstasy)

Side Effects

- Jaw muscle tension
- Teeth grinding and involuntary clenching
 - Users will often suck on pacifiers and candy to help relieve the tension
- Muscle tension
- Tremors
- Muscle cramps
- Twitching



Colored necklace and pacifier are popular "rave" accessories.



MDMA (Ecstasy)

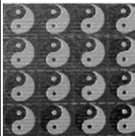
Side Effects:

- Dry mouth
- Dilated pupils
- Blurred vision
- Nausea
- Faintness
- Chills/Sweating
- Problems sleeping
- Depression
- Dehydration is common
- Overheated/Increased core temperature
- **Hyperthermia** 107-109°F
- Loss of consciousness
- Seizures
- Confusion & Panic attacks
- Tachycardia
- Hypertension
- Hepatic/Renal failure
- Death

Lysergic Acid Diethylamide (LSD)

Street terms: "acid", Dots, Mellow Yellow, Loony toons, Blotter

- First discovered in 1938
- Produced in the US - on the West Coast, particularly San Francisco
- Effects are unpredictable from 30 mins to 12 hrs
- Schedule I - No currently accepted medical use in treatment in the United States
 - Odorless
 - Colorless
 - Slightly bitter taste
 - Usually taken by mouth
 - Found as a liquid, microdot, sugar cubes, gelatin squares and blotters (soaked paper)



Signs of Use/Side Effects of LSD

- Elevated BP
- Tachycardia, Palpitations
- **Hyperthermia**
- Elevated blood sugar
- Dilated pupils
- Tremors
- Gooseflesh
- Profuse perspiration
- Hallucinations, delusions and paranoia
- Panic reactions
- Flashbacks are a unpredictable and dangerous side effect
- Occur spontaneously
- Vary in frequency and duration
- May occur days up to months after use
- Increase occurrence during times of stress

Management of overdose for Cocaine, Methamphetamine, MDMA, Molly, or LSD

- Treat as a Medical Emergency –
 - **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

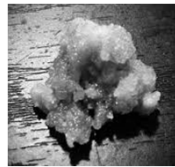
Cannabis and Synthetic Cannabinoids (K2, K9, Spice, and 'Herbal Incense')



THC – Wax/Dab - “dabbing”

- Potent - high level of THC psychoactive compound: up to 80% THC, (range 50-75%)
- Marijuana joint average 20% TCH
- Obtained from the cannabis plant
- Marijuana leaves and stems are soaked in a solvent such as butane which extracts the cannabinoids
- The residue is then dried out, resulting in a sticky paste
- Produced into : Viscous oil, hardened waxy substance, or brittle/glassy pieces

- Known as:
- Hash (hashish) oil
 - Wax
 - BHO
 - Honey Oil
 - Budder or shatter



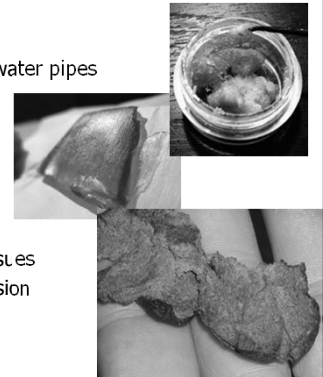
THC – Wax/Dab - “dabbing”

How is it used:

- Smoked in vaporizers and water pipes
- e-cigarettes
- Edibles, drinks and liquids

Side Effects:

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



E-Cigarettes and THC Biggest trends upward in teenage use

Posted 11:00 a.m. Thursday, Jan. 9, 2014

CHP: Teens converting e-cigarettes to use THC oil

View Larger By Noelle Walker KTVU.com

RICHMOND, Calif. — The California Highway Patrol is warning parents and teachers to look out for a new drug trend among teens: converting e-cigarettes to use with THC, the active ingredient in marijuana.

CHP public information officer Daniel Hill told KTVU the department uses social media and YouTube to keep up with rapidly changing drug trends.

"Kids at school are able to use these vaporizers relatively undetected in the classroom," said Hill.

That's because, like standard e-cigarettes, the converted e-cigs are odorless and smokeless.

RICHMOND: Teens converting e-cigarettes to smoke THC as they

The Patient ID Center in Oakland caters to medical marijuana



K2, Spice Gold, and Herbal 'Incense'

- Plant material and herbs Sprayed/ laced with synthetic cannabinoids
- Compounds chemically similar to THC
 - Mimics the Psychoactive ingredients in marijuana (THC)
- 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
- Act on cannabinoid receptors found throughout the body (just like THC)
 - Not generally detectable by current drug screening methods (that look for THC)



K2, Spice Gold, and Herbal 'Incense'

- **How is it used:**
 - Most often smoked
 - Sometimes made into a Tea
 - Intravenously
- **Why:** Mimic delirious effects of THC
- **Street Names:** Hundreds of brands: Aroma, Banana Cream, Black Mamba, Bombay Blue, Fake Weed, Genie, **K2**, Nuke, **Scooby Snax**, SpicyXXX, **Spice**, Zohai



Scooby Snax Herbal Incense

- 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)
- \$34.99 for 10 grams (as of 4/2/15)



K2, Spice Gold, and Herbal 'Incense'

- Commonly purchased in head shops, tobacco shops, gas stations, retail outlets, and the Internet
- Often marketed as Herbal Incense, Potpourri, or "fake weed."
- Users consider it a "Legal high"
- Many states have banned some substances involved in making it
- An example of deceptive language used on Spice labels 'not for human consumption'
- Once banned, compound is modified to avoid laws



Synthetic Cannabinoids K2, K9, Spice, and 'Herbal Incense'

- **Desired Affect:** Euphoria & giddiness
- **Side Effect:**
 - Tachycardia, bradycardia, palpitations, chest pain, and Elevated BP
 - Dyspnea and diaphoresis
 - Anxiety, irritability, suicidal thoughts
 - Paranoia, Panic attacks, and psychosis
 - Seizures
 - Appetite changes, nausea, vomiting
- It appears to be stored in the body for long periods of time, and therefore the long-term effects are not fully known.



Synthetic Cannabinoids: Treat the Symptoms

- | | |
|-------------------------------|--|
| • Chest pain | • Severe agitation |
| • Tachycardia and Bradycardia | • Anxiety and Irritability |
| • Nausea and vomiting | • Confusion |
| • Muscle spasms | • Somnolence |
| • Seizures | • Memory changes |
| • Tremors | • Paranoia |
| • Dilated pupils | • Intense hallucinations |
| • Brisk reflexes | • Psychotic episodes: including suicidal fixations |

Reference: Seely, K. A., et al (2012)

New Compounds Send Users to Hospital (Per NIH/NIDA)

- "Cloud 9," "Relax," or "Crown"
- Hospitalizations, especially in **Michigan** = county ban on sales
- "Mojo," "Spice," "K2," and "Scooby Snax"
- > 150 hospital visits in **Baton Rouge** and **Lafayette, Louisiana**

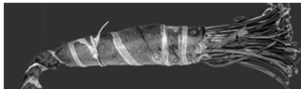
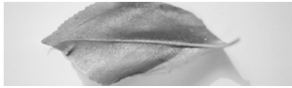
Updated April 20, 2015

- Recent surge in hospitalizations linked synthetic cannabinoids
- Some states, including Mississippi, Alabama, and Texas, have prompted health warnings from officials. **New York Governor issued an alert after more than 160 patients were hospitalized in less than two weeks in mid April, 2015.**
- Recent reports r/t names Geeked Up, Ninja, Caution, Red Giant, and Keisha Kole

<http://www.drugabuse.gov/drugs-abuse/emerging-trends>

Cathinones – Natural vs Synthetic

- Khat natural Cathinone
- "Bath salts" chemical formulas



Cathinones - Natural vs Synthetic

- **Natural Cathinone**
- **Khat (Quat, Cot, Tea)**
- Cathinone is an alkaloid
- Leaves of the khat bush
- Grows in East Africa and in southern Arabia
- Used for its euphoria and stimulating amphetamine-like properties
- Hallucinogenic and entactogenic
- DEA reports that 10 million people worldwide chew khat
- **Synthetic Cathinone**
- **Bath salts (Group name)**
- Chemically structurally Cathinone
- Like Amphetamines, they stimulate the CNS and have sympathomimetic features.
- Emerged in the recreational drug markets as legal alternatives ("legal highs") to amphetamine, ecstasy, or cocaine
- (Valentine et al, 2013)

Effects: and Side Effects

- Khat contains a number of chemicals two are controlled substances:

- **Cathinone (Schedule I)**
- **Cathine (Schedule IV)**

Desired effects:

- Excitement, Euphoria, Hyper-manic states, Hyperactivity, talkative

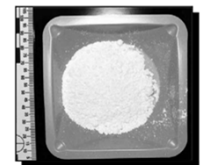


Side Effects:

- Insomnia
- Extreme thirst, Loss of appetite
- Constipation
- Dilated pupils (mydriasis)
- Tachycardia + Hypertension
- Delusions of Grandeur
- Paranoia
- Hallucinations
- Manic behavior
- Irritability and anger

Synthetic Cathinones (Bath Salts)

- Synthetic chemical stimulants - Derivatives of cathinone
- Stimulant effects similar to cocaine, amphetamines, Khat, LSD, and MDMA
- Increases dopamine, serotonin, and norepinephrine in synapses
- Marketed as "bath salts" to evade detection by authorities
 - Not to confuse with bath products or Epsom salts
- Originally synthesized in the 1920s
- Recreationally in UK in 2009, then Europe, then USA in 2010



Synthetic Cathinones (General)

Duration: 4 to 8 hours

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

Synthetic Cathinones (General)

- **User Reports:** Highly addictive with intense cravings
- **Higher doses/Overdose:**
 - Severe Hyperthermia
 - Rhabdomyolysis
 - Hepatic and renal failure
 - Cardiac injury
 - Death
- **Side Effects:**
 - Tachycardia
 - Hypertension
 - Vasoconstriction
 - Feeling extreme heat
 - Diaphoresis
 - Prolonged panic attacks
 - Agitation, Psychosis
 - Paranoia, Hallucinations
 - Seizures



Smoked bath salts in the maternity ward, was found running naked, kicked a nurse and bit a police officer



- **MDPV: Bath salts**
 - More common to USA
- **Mephedrone: Meow-Meow**
 - More popular UK/Europe
- **Methylone: bk-MDMA** Not to be confused MDMA = Ecstasy
- **Alpha PVP - Flakka**

- Usually marketed with the warning
- **"Not intended for human consumption."**
- Most often found in college towns in head shops novelty stores, convenience stores, and gas stations.
- Sold over the Internet
- Users want to get high without engaging in criminal activity

Methylenedioxypropylvalerone (MDPV)

Street Names:

- Bath salts
- Energy-1
- Ivory Wave
- Plant food
- Plant fertilizer
- Vanilla Sky
- Avalanch
- Bonsai Fertilizer
- Shock Wave
- Purple Wave
- Jewelry Cleaner



- Psychological effects duration approx 3 to 4 hours
- Mild stimulation lasts from 6 to 8 hours
- MDPV has 4x times the potency of methylphenidate (Ritalin, Concerta)

4-methylmethcathinone - Mephedrone

- **Street terms:**
- M-Cat, Meow Meow, drone, bounce, mad cow, Bliss
 - Mephedrone mixed with methylone = bubbles
- **Used:** A white powder, capsules, or tablets
- Generally the Same desired effects, side effect as MDPV
- Most common side effect: teeth grinding - also found in MDMA (Ecstasy, X, Molly)

- Like with MDPV: Mephedrone producing similar effects to MDMA, Amphetamines and Cocaine



Methylone: (bk-MDMA) N-methy-3,4- Methylenedioxypropylvalerone

- **Methylone:** Currently encouraged as a "safe" alternative to amphetamines
- Available in US in powder and crystal form
- Purchase on the internet
 - Delivered in 3-5 days (Dr. Synthetic ships from Bulgaria and China)
 - \$100 for 10 gms
- Europe: Sold in plastic tubes containing 5 mL of liquid.
 - "room odorizer" or "Explosion"
 - Also may be sold as Molly



Alpha PVP - Flakka

- Alpha-Pyrrolidinopentiophenone, α -PVP, alpha-PVP, O-2387, β -ketone-prolintane, Prolintanone
- Second generation synthetic cathinone
- Stimulant compound developed in the 1960s
- The mechanism of action is unknown - believed to act similarly to the designer drug MDPV,
- May act as a norepinephrine-dopamine reuptake inhibitor (NDRI)
- Street terms:
 - Flakka/Flocka/Flocca (Florida)
 - Gravel (other parts of the US)
- DEA Schedule I, but chemical manipulation changes are made - making new versions of the drug

Alpha PVP - Flakka

- Flakka, which comes in crystalline rock form
- It can be swallowed, snorted, injected, or used in an e-cigarette and vaped.
- The duration last as few as 3-4 hours, but can also linger for several days
- **Deadly Side Effect: Hyperthermia 105-106 f**
 - Leading to kidney failure, and rhabdomyolysis
- The drug is highly addictive, both from a physical as well as a psychological perspective.



Chemical Drugs

- Drugs in the "Bath salts" group usually contain hallucinogenics biochemically characterized as analogs of mescaline or LSD
- Naturally found in the peyote cactus, but synthetic versions are made under the name of "research chemicals"
- **Phenethylamine** hallucinogens are similar to the effects of **Mescaline**
 - **Eg: 2C-I** (India) and **Bromo DragonFly** (B-Fly) **Ethylone** and **Butylone**
- **Tryptamine** hallucinogens are similar to **LSD**
 - **EG: N-Bomb** (Smiles)
 - The LSD analog 25I-NBOMe was the most common hallucinogen detected as part of our 4-year surveillance program in Arkansas

2C-I (India)

Chemical: 4-Iodo-2,5-Dimethoxyphenethylamine

- Psychedelic Phenethylamine
- The fluffy white powder is usually pressed into pill form
- Oral doses (usually) 3 - 25 mg
- Powder - snorting
- Small squares of blotter paper similar to LSD – oral
- Injected = immediate onset of hallucinations may begin before the injection is complete
- Schedule I, but still found on internet sales
- Produce LSD-like hallucinations and visual distortions, and MDMA-like empathy
- Users report delayed effects, resulting in additional doses or more drugs, then risk of toxicity or accidental over dosage



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
 - Drug of choice for club drug in Colombia
 - Vasoconstriction: extremity tissue necrosis
 - Seizures,
 - Respiratory distress
 - Hepatic and renal failure

AMERICA'S NEW DEADLY
LEGAL DRUG:
DRAGONFLY



Ethylone

- **Ethylone**, also known as **3,4-methylenedioxy-N-ethylcathinone (MDEC, bk-MDEA)**
- Recreational designer drug classified as an entactogen, stimulant, and psychedelic of the phenethylamine, amphetamine, and cathinone chemical classes.
- It is the β -keto analogue of MDEA ("Eve").
- Ethylone has only a short history of human use and is reported to be less potent than its relative methylone.
- In the United States, it began to be found in cathinone products in late 2011
- Schedule I Controlled Substance

Butylone

- **Butylone**, also known as **β -keto-N-methylbenzodioxolylbutanamine (bk-MBDB)**
- It is an entactogen, psychedelic, and stimulant of the phenethylamine chemical class.
- It is the β -keto analogue of MBDB.
- Butylone is produced as a white crystal
- Butylone has similar effects as phenethylamines like MDMA and MBDB.
- It causes an increase in the levels of extracellular serotonin and dopamine.
- Schedule I Controlled Substance

N-bomb

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

- Chemical: 25I-NBOMe, 25C-NBOMe, and 25B-NBOMe
- Almost exclusively in Made in China – marketed as a "safe alternative to LSD"
 - 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



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

Additional Chemical Drugs you may hear about in this group

- 2,5-Dimethoxy-4-(n)-propylthiophenethylamine (2C-T-7)
- **Street Names: Blue Mystic, T7, Beautiful, Tripstay, Tweety-Bird, Mescaline**
 - psychedelic phenethylamine



- 5-Methoxy-N,N-diisopropyltryptamine (5-MeO-DIPT)

- **Street Names: Foxy, or Foxy Methoxy**
 - psychedelic tryptamine



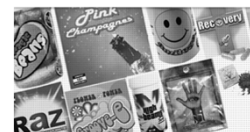
New Drug Trends – Legal Highs

- New synthetic or herbal products are emerging
- Marketed along the same pathways:
 - Gas stations
 - Convenience stores
 - Gardening/plant stores
 - **Online**
- Google search for "legal high" About 502,000,000 results (0.21 seconds)
- These drugs are not yet targeted yet by law enforcement.



New Drug Trends – Legal Highs

- Users believe they are a "legal" substitute for popular street drugs and are more readily available
- The Internet has made it easier to buy the drugs
- The internet also offers users information on how to use the drugs and how to share their highs and other drug-related experiences online
- You can seek questions like: "How will taking a dose of this product affect me?"
- The Names are deceiving
- The results are unpredictable



Legal High's are on Sale – online

Legal High on Amazon.com

Search on Amazon.com: [legal high](#)

At Amazon.com, we not only have a large collection of legal high products, but also a comprehensive set of reviews from our customers. Below we've selected a subset of legal high products and the corresponding reviews to help you do better research, and choose the product that best suits your needs.

Related Products

<p>KAVA WAKA powder - 1 LB. Figan High... Wakaron \$26.99</p>	<p>New Hempstrawler 20 Count Bottle Wabone \$29.97</p>	<p>Nutiva Organic Hemp Protein H-Fiber... \$20.29</p>	<p>FruityLury Herbsalvia with HDV... \$9.73</p>
<p>Brain Pharma Co. Happy Pills, 60... \$42.25</p>	<p>Zan-X, One Box (24 pills) Vibroboot \$59.99</p>	<p>Mushroomch Amoo Budd, Fruit Punch... \$20.47</p>	<p>AFC FACT Weight-Loss Pills EV19... \$10.05</p>

Benzo Fury or 6-APB

- Colorless stimulant, sold in powder and pellet or tablet form for oral consumption
 - Can also be snorted
- Compound of the phenethylamine and amphetamine classes
- Marketed as a "research drug", "not suitable for human consumption"
- Currently unscheduled in the U.S.
- \$15-16 U.S. dollars) per pill/pellet
- Effect within 30 to 60 minutes
- Effects plateau after approx 2 hours
- May last up to 10 hours



- Sold primarily through websites claiming to be suppliers of research chemicals
- There are multiple websites – Biggest supplier in UK



Affects are the similar to MDMA (Ecstasy):

- Alertness, increased energy, euphoria, feelings of peace and love toward others, tingling feelings, and intense sexual responses
- Dilated pupils, tightening of jaw muscles, raised body temperature, tachycardia, anxiety/panic attacks and paranoid/confused states.

Red Dawn Vector Unbelievable Bliss

- **Advertised as:**
 - "OUR customers tell us this is our best herbal pill product"
- BLISS is a mood enhancer composed of natural herbs
- Effects include extreme aphrodisia and mood enhancement.
- **Website Review:** Our team and many satisfied repeat customers agree this is the best herbal energizer and mood enhancement product available



- **User Notes:** Use strictly one capsule at a time; though you can take another 1 1/2 hrs later, if desired
- Contains 2 Capsules
- \$11.95

Smoking Alcohol

- Become drunk without the extra calories
- Vapor inhalation takes the person from sober to drunk within seconds
- Hangovers may be reduced

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 mixes with the alcohol
- Once the vapor is seen, the cork is pulled off and the vapors are inhaled through the mouth and nose
- Sometimes used with dry ice: Once the dry ice mixes with the alcohol, a vapor will develop



Smoking Alcohol

Risk of overdose:

- When a person drinks 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.



Powdered Alcohol

- Coming soon to a liquor store near you: Currently available online
- Legal, but banned in some states
- Manufactured with Dextrin to be diluted in water to make alcoholic beverages
- Abused by snorting



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

"Beezin' - Usually while High"

So kids are apparently rubbing Burt's Beeswax lip balm on their eyelids in order to get high.



boots.scene7.com



Drug Paraphernalia



Determining Use and Overdose



Hollow paper adapted to conceal drugs.



Squeeze bottle filled with GHB.

◆ Look for clues – Paraphernalia

- ◆ Does anything look like a pipe?
- ◆ Shake a bottle of water to test for GHB
- ◆ Look for empty soda cans (with holes in)
- ◆ Candy, Bubbles, glow-sticks



Gas mask converted to drug pipe.



Lipstick dispenser hides drug pipe.



Felt tip marker with internal drug pipe.



Assorted collection of drug pipes.

Smuggling



Smuggling Trick: Using plastic water bottles with a hidden compartment for drugs.



- ◆ Questions?
- ◆ Andreaefre@yahoo.com
- ◆ Please see reference list for further reading