Designer Drugs: Bath Salts, SPICE and More to Come

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SPICE and Bath Salts

• An issue for your jurisdiction?
• What do you see?
Case Example: Mr. Z

- 28 year old man with no previous legal or psychiatric history
- Charged with home invasion
- Broke through a plate glass window
- Went down the stairs
- Howled and growled like a dog in basement
- Physically resisted arrest
Mr. Z

- Severe cuts
- Vomited in home
- ER: Unintelligible, rigid and strong
- Labs
  - Glucose high (221), Potassium Elevated
  - Tox + MJ, acute renal failure
- Diagnosis?
Clues to synthetic cannabinoid (SPICE) intoxication

- Altered mental status (confusion, bizarre and agitated behavior)
- Vomiting
- Rapid heart rate
- Elevated blood glucose
- Elevated potassium.
Objectives

- How can you recognize synthetic drug abuse in physical and psychiatric symptoms?
- What is the role of monitoring programs in synthetic drug abuse?
- What are the key challenges in detecting, controlling and preventing synthetic drug use?
Designer Drugs:

“Traditional” designer drugs have been:
- Opioids, hallucinogens, anabolic steroids

New Wave: 2005 - 2010
- Stimulants (MDPV)
- Synthetic cannabinoids (SPICE)
- Others in the pipeline
Drivers for Designer Drugs

• Consumer demand (Psychonauts)
• Law enforcement
• UDS testing
The Appeal?

• Pass drug screens
• “Legal”
• Online availability
• Sensation seeking- “Psychonauts”
  ▫ A. Research subjects that volunteer in pharm research for kicks
  ▫ B. Bloggers who document novel substances/combinations
  ▫ C. Mental health patients who experiment with medications
Psychonauts

- Detailed first person descriptions of experiments

- Erowid Experience Vaults
  - [http://www.erowid.org/experiences/exp.cgi?S1=377](http://www.erowid.org/experiences/exp.cgi?S1=377)
    - Rating, substance(s), narrative
    - First time, Combinations, Glowing Experiences, Addiction
Online Availability

- **Order Cheap MDPV**
  - Go to our Website and Place your order through [http://www.buyjresearchchemicals.webs.com](http://www.buyjresearchchemicals.webs.com)

- MDPV $20 per gram
- *All items are sent within one business day after payment received. Multiple ways of delivery are possible:
- *No Free Samples

- *Payment is by Money Gram, Western Union.
SYNTHETIC CANNABINOID METABOLITES SCREEN, EXPANDED now includes 18 metabolites!

AM-2201, JWH-018, JWH-019, JWH-022, JWH-073, JWH-081, JWH-122, JWH-210, JWH-250, RCS-4 and UR-144 / XLR-11 metabolites
(screened by ELISA; confirmed by LC-MS/MS)

JWH-018, JWH-073 and UR-144 / XLR-11 metabolites
(screened by ELISA; confirmed by LC-MS/MS) - See more at: http://www.nmslabs.com/services-forensic-K2-testing#sthash.4umMYwE4.dpuf
Bath Salts and Stimulants Designer Drugs - Expanded, Urine Test $250

- 2C-B [LC/TOF-MS]; 2C-C [LC/TOF-MS]; 2C-E [LC/TOF-MS]; 2C-H [LC/TOF-MS]; 2C-I [LC/TOF-MS]; 2C-N [LC/TOF-MS]; 2C-P [LC/TOF-MS]; 2C-T-2 [LC/TOF-MS]; 2C-T-7 [LC/TOF-MS]; 3,4-DMMC [LC/TOF-MS]; 3-FMC [LC/TOF-MS]; 4-MEC [LC/TOF-MS]; 7-Hydroxymitragynine [LC/TOF-MS]; Amphetamine [LC/TOF-MS]; BZP [LC/TOF-MS]; Buphedrone [LC/TOF-MS]; Butylone [LC/TOF-MS]; Cathinone [LC/TOF-MS]; DBZP [LC/TOF-MS]; DMAA [LC/TOF-MS]; DOB [LC/TOF-MS]; DOM [LC/TOF-MS]; Ethylone [LC/TOF-MS]; Flephedrone [LC/TOF-MS]; MBZP [LC/TOF-MS]; MDA [LC/TOF-MS]; MDEA [LC/TOF-MS]; MDMA [LC/TOF-MS]; MDPV [LC/TOF-MS]; Mephedrone [LC/TOF-MS]; Methamphetamine [LC/TOF-MS]; Methcathinone [LC/TOF-MS]; Methedrone [LC/TOF-MS]; Methylone [LC/TOF-MS]; Mitragynine [LC/TOF-MS]; Naphyrone [LC/TOF-MS]; O-Desmethyllumadrol [LC/TOF-MS]; PMA [LC/TOF-MS]; Pentyline [LC/TOF-MS]; Phenazepam [LC/TOF-MS]; Pyrovalerone [LC/TOF-MS]; TFMPP [LC/TOF-MS]; mCPP [LC/TOF-MS]
What is “Spice” “K2”? (Synthetic Cannabinoids)
There is 1.5g of Natural Super Puff in each package. Super Puff incense is an ultra strong aromatic incense, and is one of the world's strongest herbal incense blends available. It contains an extremely potent blend of herbal resins, extracts, and leaves. This incense is for botanical use only and is not for human consumption.
SPICE

- Spice or K2 is a mixture of herbs or spices sprayed with synthetic chemicals similar to THC in marijuana but more powerful Smoked to get high
Spice For Sale...

- Prices for Spice start at $5.00
- Retail Stores
- Over 1,000 Internet sites selling
- 3,000 Companies in China selling in bulk
- Street Sales?
- 5 Billion Dollars a year in Sales
Examples Herbal components of ‘Spice’- Cannabis-like effects

- Family: Beach bean *Canavalia maritima*; syn. *C. rosea*
- Fabaceae: White and blue water lily *Nymphaea alba* and *N. caerulea*
- Nymphaeaceae: Dwarf skullcap *Scutellaria nana*
- Lamiaceae: Indian warrior *Pedicularis densiflora*
Synthetic THC

- THC Analogues, so-called classical cannabinoids
Synthetic cannabinoid receptor agonists

- 1960s First: HU-210 (‘HU’ stands for Hebrew University)
- Nabilone and Dronabinol, have limited therapeutic use, e.g. in treating nausea following chemotherapy.
- 1990s J.W. Huffman et al. at Clemson University, USA created a large series of compounds
- JWH compounds
Why so hard to detect and identify?

- Mislabeling
- Vit E added to mask active components
- New compounds emerge regularly with no available reference in lab “libraries”
- Some JWH compounds are identifiable
Labeling is Vague

- Label lists what chemicals are NOT in this container of SPICE
- Unknown what chemicals are actually in container
SPICE

- Spice can be sprayed onto anything that can be burned and then the smoke is inhaled to get high.
- Many times it is sprayed onto herbs and smoked similar to a cigarette.
What is SPICE?

Figure 1:

A. Spice Package  B. Spice Package  C. Herbal Incense  D. Cannabinoid Powder
Spice Effects on Mind & Body

- Agitation
- Anxiety including extreme panic attacks
- Depression
- Paranoia
- Psychosis
- Hallucinations
  - Visual
  - Auditory
- Flashbacks

- Increased blood pressure
- Increased heart rate
- Cardiac arrest
- Blood shot eyes
- Insomnia
- Tingling, numbness
- Vomiting
- Seizures
- Tremors
- Suicidal Thoughts
Spice Dangers

- Unregulated, Untested, No Medicinal Use
- No long-term studies, the true effects are not yet known
- Never Tested on Humans
- Spice/K2 is **physically addicting**
- One-time use has resulted in death
Flavor Added to Spice

- Cotton Candy
- Bubble Gum
- Juicy Fruit
- Strawberry
- Fruit Punch
- And more
SUHSD Student Dies - Graduation Day Cardiac Arrest Hospital E/R

- **Video** from KUSI NEWS San Diego
- June, 2011
- Includes cell phone video from hospital taken by parent
David Rozga, 18 Years Old

- "A week after my son David's high school graduation, he smoked a substance called K2, (Spice) said Mike Rozga. "Within an hour or so of smoking that, he was dead."
- David suffered a K2-induced or related panic attack and shot himself.
- http://www.k2drugfacts.com/
• EXPERIENCES #
• Nearly Identical to MJ But Longer Lasting, by mixmaster
• Hell Inside my Own Mind, by SirDoughboy
• Going Up is Better When you're Down, by Speaker
• Coming Out of the Haze, by The Pilgrim
• Withdrawal from Herbal Incense, by Riley
Bath Salts

Synthetic
Stimulant
Bath Salts - Synthetic Stimulants and others - What are They?

- NOT used for Baths
- Deliberately Mislabeled
- “Not For Human Consumption”
- MDPV and others
How are Bath Salts Used?

- Same manner as cocaine and methamphetamine
- Snorting
- Smoking
- Injection
- Swallowing in water
Bath Salts Effects

• Insomnia
• Agitation, Easily Angered
• Extreme Energy
• Extreme Paranoia
• Psychosis
• Hallucinations
• High Body Temperature can melt muscles
• Kidney Failure

• Increased blood pressure
• Increased heart rate
• Can be combined to give Stimulant High
  • LSD Hallucinations
  • PCP Strength
  • Amphetamines Paranoia
What do Bath Salts look like?
White Girl, Scarface, Superman,
May Also Be Labeled

- “Toilet Bowl Cleaner”
- “Plant Food”
- “Fertilizer”
“Charley Sheene” Bath Powder
Bath Salts vs Bath Salts

- Size and price
- 30 Ounce Container of REAL Bath Salts is $4.00
- 30 Ounce Container of Drug mislabeled as Bath Salts would cost $51,000.00 ($15 a Gram)
- Labeled Not for Human Consumption
Bath Salts
Facebook - Scarface Bath Salt

Scarface Bath Salt
Product/Service

Wall

Scarface Bath Salt
Buy Mojo Diamond, Fuego, ZeRo GraViTy, Double Dutch, Kush, Cloud Ten, Freedom, Head Trip, Maya, Remix, Wicked, Boom, Space Cadet, Bonzai and Scarface @ www.IncenseCafe.com

Welcome to IncenseCafe - Please Select Your State...
www.IncenseCafe.com

CAUTION: All products contained on this site are for legal use only. MUST BE at least 18 years of age to order. Not for human consumption. The manufacturers and sellers of this product take no responsibility or liability for the incorrect or misuse of this product. Herbal incense blends sold for ar

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RECENT ACTIVITY

 Scarface Bath Salt edited their Website, Description and About
Calls to All Poison Control Centers about Spice and Bath Salts

Calls to U.S. Poison Control Centers


These numbers reflect calls as of July 31, 2011.

Data: American Association of Poison Control
http://www.aapcc.org

South Bay Community Change Project
Funded by Health & Human Services Agency, Alcohol and Drug Services
A project of the Institute for Public Strategies
Calls to All Poison Control Centers

About Spice

- **Spice** (Synthetic Cannabinoids)
  - 2,915 calls in 2010
  - 3,787 calls through July 31, 2011
  - 5,083 calls through September 30, 2011
- **Bath Salts** (Synthetic Stimulants)
  - 303 calls in 2010
  - 4,137 calls through July 31, 2011
  - 5,226 calls through September 30, 2011
Bath Salts User - Under Influence

- Video KMOV NEWS Missouri
- Fearful of imaginary people
- Ran over girlfriend with a vehicle
Dickie Sanders - 21 Years Old

- Snorted Bath Salts
- Vivid Terrifying hallucinations
- Attempted Suicide
- Rushed to Hospital
- Returned home and committed suicide
Warnings By Government

• Numerous Warnings by Government Agencies and Military
• DEA, DOJ, CDC, Poison Control Centers, etc.
Legal To Possess in California For Personal Use
What are the controls in your jurisdiction?
U.S. Federal Law

- Schedule 1: Cannabimimetic agents (e.g. chemicals that binds to and stimulates the cannabinoid type 1 receptor)
Chemical Class Approach to Legislation

• Banning individual chemical compounds is not effective. Manufacturer’s switch to other chemical compounds not included in laws
• Chemical Class includes all chemical compounds
• No medicinal value
U.S. Military

• SPICE banned
State laws on SPICE

• Variable
  ▫ California
  ▫ Washington: Illegal to make, posses and sell
  ▫ Nevada: Pharmacy Board identifies specific components of Spice as illegal

• Source:
California Law

- Does not include bans on possession for personal use. Possession for personal use allowed
- Bath Salts illegal to sell now, due to Urgency Clause
State Bans

- **38 States** Have Banned Sales of **Spice**
- **30 States** Have Banned Sales of **Bath Salts**
  Including Bans on Possession for Personal Use
1 in 9 High School Students report using

- School Boards – banning possession on school campuses?
School District Concerns

• Possession or use of Spice or Bath Salts (not illegal or considered a controlled substance) is not listed in the California Education Code, then unable to suspend or expel a student.
• San Diego County Office of Education, Senior Director of Student Support Services, Loretta Middleton
Where is the next high?

- 470 JWH-series compounds synthesized - 24 currently in use
- Manufacturers working on new versions to stay a step ahead
Summary

• Distinctive symptoms
• Prominent psychiatric complications
• Laws vary and can be confusing
• No comprehensive tests for detection
• New substances will be entering the market