

Understanding K2 and Bath Salts

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**Guest Speakers from Illinois Attorney General Lisa Madigan's Office:
Michael Hood, Deputy Attorney General for Criminal Justice
Cara Smith, Deputy Chief of Staff**

Overview

What you will learn about the popular synthetic drugs K2 and bath salts:

- Synthetics 101: What these substances are made of
- Availability of the substances
- Related trends
- Current laws and operations targeting these drugs
- Signs and symptoms
- Effects of use
- Resources for further information

Audience Poll

Which of the following most closely represents your position in attending today?

- A. Substance Abuse Treatment Provider
- B. Mental Health Treatment Provider
- C. Educational Provider
- D. Legal Agency
- E. Recovery Supporter

**Synthetic Marijuana is a safe
alternative to organic weed (THC)**

A. True

B. False

**Synthetic Marijuana is a safe
alternative to organic weed (THC)**

A. True

B. FALSE

What Are Synthetic Drugs?

SYNTHETICS 101

Products Referred to as Synthetic Marijuana:

- K2 and Spice are brands of synthetic marijuana.
- Products are a blend of herbs sprayed with chemical compounds that are marketed as herbal incense.
- K2 can be produced using chemical compounds called JWH-018, JWH-073, JWH-200, CP-47,497 and cannabicyclohexanol. These compounds are structured similar to THC, the active ingredient in marijuana, and can be sprayed onto varying mixtures of dried herbs, flowers and tobacco leaves.
- K2 has emerged as a generic term for synthetic marijuana.



Synthetic Marijuana/K2

Synthetic Marijuana is Sold As:

- Herbal incense
- Herbal blends
- Spice
- K2/K3
- Spike

Numerous other Brand Names (more than 140) Include:

- Spice Gold
- Space
- Yucatan Fire
- Aroma
- Krypton



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Trends Related to K2

- An explosion of the use of K2 started in the U.S. in early 2010. The increased number of emergency room visits related to the substance sparked attention of the media.

So why the sudden popularity?

- Use of synthetic marijuana is alarmingly high. According to the 2011 Monitoring the Future survey sponsored by National Institute on Drug Abuse, 11.4% of high school seniors used Spice or K2 in the past year, making it the second most commonly used illicit drug among seniors.

Trends Related to K2

- Gateway Foundation has noticed a trend in increased admissions for K2 abuse since fall 2011.
- Very early evidence in Gateway Foundation treatment of K2 and Spice abuse shows abuse potential of synthetic cannabinoids.
- In an Internet-based survey of adults who used synthetic cannabis, it was found that the use of other psychoactive drugs was common.*

*Vandrey R, Dunn KE, Fry JA, Girling ER . A survey study to characterize use of Spice products (synthetic cannabinoids). *Drug Alcohol Depend.* 2012;120:238-241.

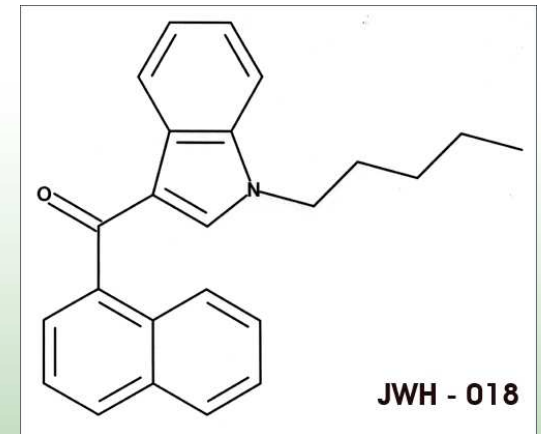
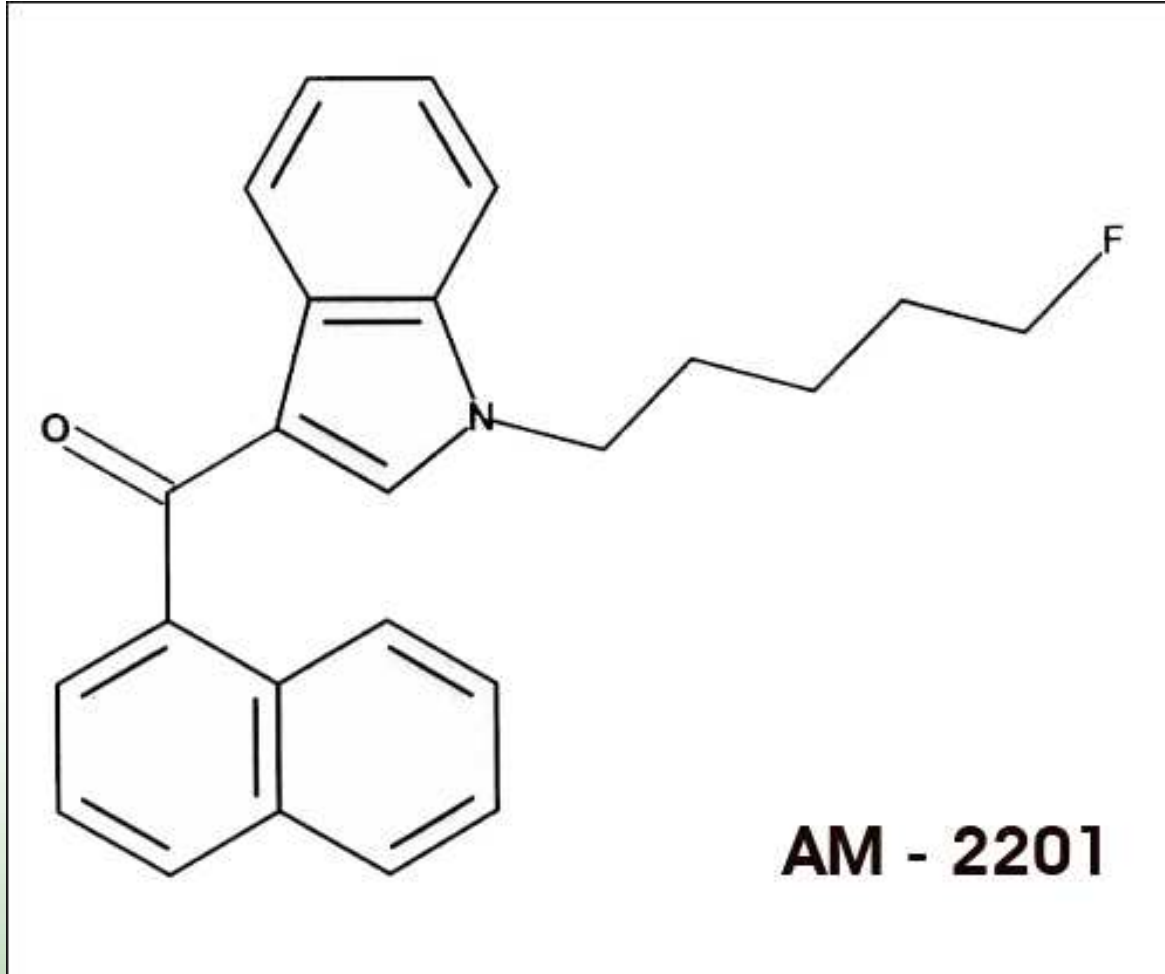
Legality

Illinois Legislative Action

- Synthetic drug products are illegal under a variety of theories in the state of Illinois
- From the analogue Act of 1987 to the present, legislators have struggled to find the best way to ban synthetic drug products.
- The problem persists because manufacturers are a step ahead, ready to produce other slightly modified synthetic variants.

To date, more than 140 different synthetic cannabis products have been identified.*

Molecular Structure



Audience Poll

Sellers of synthetic drugs have reported profits reaching:

- A. \$1000 Daily
- B. \$2,000-4,000 Daily
- C. \$4,000-6,000 Monthly
- D. \$12,000 Daily

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Operation Smoked Out

Smoked Out is an initiative started by the Office of the Illinois Attorney General in December of 2011.

- Smoked Out targets retail establishments that sell synthetic drug products and interrupts the stream of commerce while educating retailers with regard to the illegality and danger of the products themselves.
- To date, Illinois retailers have relinquished to law enforcement, 31,278 packages of synthetic drug products worth an approximate street value of $\frac{3}{4}$ million dollars.

Signs and Symptoms of K2

According to Gateway Foundation research, those in treatment for abusing K2 report the following:

- K2 can induce a limitless high
- Significant agitation and aggression
- “Dark” or “Scary” thoughts
- Users who overdosed reported blacking out, having seizures and vomiting.
- Hallucinations, paranoia, seizures, anxiety and over-activation of the central nervous system (e.g., elevated temperature, rapid heartbeat) are common.

Signs and Symptoms of K2

Some users report a sensation that can only be best described as a temporary paralysis of motor movement.

CASE EXAMPLES:

- Respiratory distress
- Eating a sandwich

Effects of K2

According to Gateway Foundation, individuals in treatment for abusing K2 report the following:

- Although K2 is known as synthetic marijuana, in reality, it is nothing like marijuana (signs and symptoms of use are not similar either).
- Many adults report getting some peer education prior to using, so they realize they should not use very much (quantity).
- Teens however seem to smoke K2 in the same manners and quantities as marijuana—creating significant problems.

Long-Term Effects of K2

- Research on the safety of synthetic K2 is only now becoming available. Initial studies are focused on the role of synthetic cannabis and psychosis.
- It seems likely that synthetic cannabis can precipitate psychosis and in some cases it is prolonged.
- Studies suggest that synthetic marijuana intoxication is associated with acute psychosis, worsening of previously stable psychotic disorders, and also may have the ability to trigger a chronic psychotic disorder among vulnerable individuals, such as those with a family history of mental illness.



Another Popular Synthetic Drug

Products Referred to as Bath Salts:

- This is not the same product you put into your bathtub, it's not like Epsom salts.
- The product is sold as bath salts and labeled “not for human consumption” to bypass FDA regulation.
- Effects are similar to methamphetamine, ecstasy and cocaine.



Audience Poll

Bath Salts May Be:

- A. Taken orally
- B. Snorted
- B. Injected
- C. Smoked
- D. All of the above



Audience Poll

Bath Salts May Be:

- A. Taken orally
- B. Snorted
- B. Injected
- C. Smoked

D. All of the above



Trends Related to Bath Salts

- Gateway Foundation has seen an increased number of admissions from people abusing bath salts in recent months.
- According to the American Association of Poison Control Centers, there were 6,138 calls for exposures to bath salts in 2011.*
- As of January 31, 2012, there were already 228 calls.

*American Association of Poison Control Centers. Bath salts data.

<http://www.aapcc.org/dnn/Portals/0/Bath%20Salts%20Data%20for%20Website%202.8.2012.pdf>. Accessed May 25, 2012.



PHOTOS © DEA

Where Do People Get Bath Salts?

- Much of the bath salts supply comes from China and sold via the Internet and at truck stops, tobacco shops and novelty stores for \$25 to \$50 for 50-milligrams.
- Marketed and sold on the Internet as “natural” and “safe” substances.
- Federal ban enacted in July 2012. Under the Synthetic Drug Abuse Prevention Act, it is illegal to produce, possess or ingest synthetic marijuana and bath salts in the United States.

Federal Ban of Bath Salts

Federal Ban Enacted in July 2012.

- This covers the online and interstate sale of bath salts and other synthetics.
- New law is unique because it prohibits not only the compounds currently identified as “bath salts,” but also outlaws similar compounds that may be produced in the future. In addition to the identified compounds, the law also prohibits any other synthetics that may have different chemical formulas but produce the same effects.

New law closes loopholes that have allowed manufacturers to circumvent local and state bans.

Federal Ban of Bath Salts

Federal ban enacted in July 2012.

- Bans the active ingredients of bath salts, mephedrone and methylenedioxypropylone, by adding them to the [Food and Drug Administration](#)'s category of substances that cannot be sold under any circumstances and also cannot be prescribed for medical purposes.
- The law enumerates 31 compounds that are explicitly banned, giving the precise, dizzying chemical name of each.
 - 20 from the list are synthetic marijuana varieties.
 - 10 are bath salts.
 - The compounds listed, experts say, are some of the most popular varieties currently being used, so the ban should slow use of these synthetic drugs, at least for the moment.

Signs and Symptoms of Bath Salts Abuse

- Anxious and jittery behavior
- Decreased need for sleep
- Lack of appetite
- Severe paranoia
- Erratic behavior with potential for hallucinations, violence and self-mutilation



Effects of Using Bath Salts

- Use of bath salts brings on a prolonged high lasting six to eight hours.
- Like cocaine, users have expressed fleeting euphoric feelings followed by some very bad feelings, like paranoia, depression and intense cravings for more.
- Bath salts are addictive.

Users reported effects include:

- Hallucinations
- Suicidal thoughts
- Paranoia

Effects of Using Bath Salts

More serious side effects associated with bath salts include

- Kidney failure.
- Blood circulation problems—including increased blood pressure and renal failure.
- A powerful high, first-time users have accidentally overdosed on bath salts.
- It can kill users.

Additional Articles & Resources:

- [Drugabuse.gov/drugs-abuse/emerging-drugs](https://www.drugabuse.gov/drugs-abuse/emerging-drugs)
- [Drugabuse.gov/publications/drugfacts/spice-synthetic-marijuana](https://www.drugabuse.gov/publications/drugfacts/spice-synthetic-marijuana)
- [Justice.gov/dea/index.shtml](https://www.justice.gov/dea/index.shtml)
- abcnews.go.com/topics/lifestyle/health/synthetic-marijuana.htm
- [cbssports.com/collegefootball/story/19814416/where-theres-smoke-theres-fire-when-it-comes-to-synthetic-marijuana](https://www.cbssports.com/collegefootball/story/19814416/where-theres-smoke-theres-fire-when-it-comes-to-synthetic-marijuana)
- RecoverGateway.org

Participant Questions?

Responded to by:

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