Bath Salts and Synthetic Drugs

NATIONAL CRIME PREVENTION COUNCIL

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Bath Salts

What are bath salts?

The term, "bath salts" is a clever marketing gimmick to disguise dangerous synthetic drug stimulants commonly known as mephedrone and MDPV (3-4 methylenedioxypyrovalerone). Bath salts are white powdery substances that usually come in a plastic container or a little pouch. They are recreational drugs that have gained popularity among teens and young adults. Known for their bizarre effects on the user, they are highly addictive. By labeling the drugs as bath salts and marking them as "not for human consumption," bath salts have been able to avoid regulation. Bath salts are often sold as a retail product in some neighborhood convenience stores, cigarette or smoke shops, as well as being available for purchase via some Internet sites. Is this legal? Yes and no.

In July 2012, Congress passed P.L. 112-144, the Food and Drug Administration (FDA) Safety and Innovation Act, classifying 31 synthetic drug substances as Schedule I drugs under the Controlled Substance Act. This places these substances in the most restrictive category of controlled substances. Many states have enacted similar restrictive laws limiting possession and distribution of these substances but the problem still persists. Presently, 20 synthetic marijuana compounds; two bath salt compounds, mephedrone and MDPV (3-4 methylenedioxypyrovalerone); and nine synthetic hallucinogens known as the 2C-E family are now deemed illegal under federal law. Possession or distribution of these substances is subject to seizure and arrest.

To circumvent these new federal and state laws, clandestine drug manufacturers, mostly located outside of the United States, have slightly changed the drugs' chemical structures by simply adding or changing a molecule. This now legally changes the chemical structure of the bath salts and by definition is no longer the chemical listed as a banned substance under the law. Therefore, these new substances are legal and not subject to seizure. As this

Figure 1. Photo by DEA

ever-evolving issue continues, federal and state laws are attempting to identify hundreds of these new chemicals being sold as legal products, mainly to teens and young adults. Because of the swiftness of the changes made by the drug traffickers, it takes time for law enforcement and the law to "catch up."

The Federal Analog Act, 21 U.S.C. Section 813 helps to address these chemical changes by allowing confiscation and prosecution of "like" substances that cause similar effects; but, case law is minimal in this area. Time will determine if the Analog statute is the right tool to address these newly developed compounds.

Other names for bath salts

Bath salts are sold under a variety of brand or street names including: Aura, Black Rob, Bliss, Blizzard, Bloom, Blue Silk, Cloud 9, Drone, Hurricane Charlie, Ivory Wave, Lovey Dovey, Lunar Wave, Maddie, MCAT, Meow Meow, Monkey Dust, MTV, Ocean Snow, Peeve, Purple Wave, PV, Red Dove, Scarface, Snow Leopard, Stardust, Super Coke, Vanilla Sky, White Lightning, and Zoom.

Figure 2. Photo by DEA

The effects on users

Bath salts affect both the mind and body. Users often experience the same effects as cocaine, methamphetamines, and LSD, such as agitation, paranoia, hallucinations, insomnia, dizziness, chest pain, suicidal thoughts, high blood pressure, nosebleeds, nausea, vomiting, and a rapid pulse. Because these drugs are still relatively new, the full effects on users are still being researched and investigated. Drug Enforcement Administration (DEA) Administrator Michele M. Leonhart stated that "these chemicals pose a direct and significant threat" (DEA news release, October 21, 2011).

The risks and long-term effects

In 2012, poison centers took 2,655 calls about exposures to bath salts (www.aapcc.org/alerts/bath-salts/). In January and February of 2013 there had been 179 calls to poison centers relating to bath salt use (https://aapcc.s3.amazonaws.com/files/library/Bath_Salts_Data_for_Website_2.282013.pdf). What doctors at poison centers have reported is that bath salts can cause rapid heartbeat, high blood pressure, chest pains, agitation, hallucinations, extreme paranoia, and delusions.

There are many similarities to methamphetamine. Taking a lot of it for a long time can lead to emotional and physical "crash-like" feelings of depression, anxiety, and intense cravings for more of the drug.

Extent of bath salt use

The full extent of bath salt abuse is not yet known. In addition to use in the United States, the DEA reports illicit MDPV use in Europe and Australia. The first reports of MDPV seizure was from Germany in 2007. The United Kingdom, Australia, Canada, and Israel have banned the chemicals. According to the DEA, the first U.S. reports came in 2009. From 2010-2011, reports in the United States increased dramatically. In the first three months of 2011, the U.S. poison control centers had received five times as many calls relating to bath salts as compared to the total number of calls in 2010 (www.drugs.com/bath-salts.html). This includes 45 states and the District of Columbia.

Prior to the federal ban, many states had enacted their own bans on at least some of the chemicals found in bath salts. Marquette County, Michigan, took quick and local action to restrict abuse of bath salts in February 2011 due to a rash of emergency admissions from November 2010 through March 2011. An emergency public health order was executed by the Marquette County Health Department to allow seizure of bath salts from a local store. Subsequent testing found that the products contained MDPV. Among 35 patients, 17 were hospitalized, and one died. The median age of the patient was 28 years (range 20-55 years), with men accounting for 54 percent of admissions. Twenty-four of these patients (69 percent) had a self-reported history of drug abuse, 16 patients (46 percent) had a history of mental illness, and six patients (17 percent) reported suicidal thoughts or attempts that may have

been related to bath salt use (www.drugs.com/bath-salts.html).

Resources on bath salt prevention and awareness

- www.drugabuse.gov/about-nida/directors-page/messages-director/2011/02/bath-salts-emerging-dangerous-products
- www.webmd.com/mental-health/features/bath-salts-drug-dangers
- www.drugs.com/bath-salts.html
- www.homehealthtesting.com/blog/2011/05/what-are-bath-salts/
- www.drugrehab.org/drug-rehab/bath-salt-drug-rehab/

Synthetic Cannabinoids

What are synthetic cannabinoids?

Synthetic cannabinoids, also known as synthetic marijuana, are chemically produced drugs that mimic or enhance the effects of natural drugs. Synthetic marijuana is produced to mimic tetrahydrocannabinol (THC). Synthetic marijuana looks like dried herbs or leaves (similar to the look of potpourri) and are often sold in small foil packets. These drugs are often labeled "not for human consumption" and sold as incense.

The substance is sprayed onto dried herbs and is smoked or ingested causing a psychoactive effect similar to the effects of marijuana (www.fas.org/sgp/crs/misc/R42066.pdf).

Other names for synthetic cannabinoids

The most common names for synthetic marijuana are K2, Spice, Bliss, Black Mamba, Bombay Blue,

Blaze, Genie, Zohai, JWH -018, -073, -250, Yucatan Fire, Skunk, and Moon Rocks. (www.drugfree.org/drug-guide/k2-spice).

The effects on users

Synthetic marijuana is most often smoked, but has been known to be taken orally in the form of tea. Symptoms are similar to those produced by marijuana, including sleepiness, relaxation, and reduced blood pressure. However, other symptoms such as rapid heart rate, vomiting, agitation, confusion, and hallucinations, have been reported as well. Synthetic marijuana also can raise blood pressure and cause reduced blood supply to the heart (myocardial ischemia), and in a few cases it has been associated with heart attacks (www.drugabuse.gov/publications/drugfacts/spice-synthetic-marijuana).

The risks and long-term effects

Because many users believe synthetic drugs to be the legal alternative, it is assumed that these drugs are safe. One of the reasons why synthetic drugs are so dangerous is that it is difficult to know the chemical makeup. According to the Congressional Research Service, there are many different formulas and potencies that can range from two to ten times stronger than the normal drug (www.fas.org/sgp/crs/misc/R42066.pdf). Synthetic marijuana has yet to be studied indepth, however it is known to act on the same cell receptors as THC. Even though the drug is meant to mimic THC, some of the ingredients in synthetic marijuana bind more strongly to those receptors, leading to an unpredictable effect.

Synthetic drugs are still a fairly new product so the long-term effects have not been studied. However, according to a White House report, synthetic marijuana has been known to cause agitation, extreme nervousness, nausea, vomiting, tachycardia (fast, racing heartbeat), elevated blood pressure, tremors and seizures, hallucinations, and dilated pupils. There have also been several heart attack cases linked with synthetic drug use.

Extent of synthetic drug use

Originally, synthetic marijuana was created for research purposes in the 1980s through the 1990s. Even though these drugs were created for research, there has been no legitimate uses found for the chemicals. In 2009 poison control centers began reporting on the numbers and effects of these drugs. In 2012 there were 5,202 calls to poison control centers

about synthetic marijuana exposure. Within the first two months of 2013 there had already been 412 calls (https://aapcc.s3.amazonaws.com/files/library/Synthetic_Marijuana_Data_for_Website_2.28.2013.pdf).

A case in Cypress, Texas, shows how dangerous synthetic marijuana can be. On December 8, 2012, a 16-year-old girl named Emily Bauer was taken to the emergency room after smoking synthetic marijuana. She was suffering from hallucinations and violent outbursts. A few days later, she suffered several strokes. Emily was taken off of life support and expected to die; however, the next day she was still alive. While Emily survived and is making progress, she can no longer walk, eat, or talk on her own (www.cnn.com/2013/02/04/health/synthetic-marijuana-irpt). While Emily's case is extreme, it is not the only one. According to a report by the Substance Abuse and Mental Health Services Administration (SAMHSA), synthetic marijuana was linked to 11,406 of the 4.9 million drug-related emergency department visits in 2010 (www.samhsa.gov/newsroom/advisories/1212040915.aspx).

In past years, these drugs have been easily accessible at gas stations, head shops, and even over the Internet. In February 2011, the DEA banned five ingredients commonly found in synthetic marijuana making

it illegal to sell, buy, or possess these chemicals. In July 2012, a national ban was enacted against the sale of synthetic cannabinoids under the Food and Drug Administration Safety and Innovation Act. Prior to the DEA and FDA bans, at least 38 states had taken action to control one or more of these chemicals.

Resources on synthetic marijuana prevention and awareness

- www.whitehouse.gov/ondcp/ondcp-fact-sheets/synthetic-drugs-k2-spice-bath-salts
- www.socialworktoday.com/archive/070212p12.shtml
- www.drugabuse.gov/drugs-abuse/emerging-drugs
- www.narconon.org/drug-abuse/effects-of-synthetic-drugs.html
- www.drugfree.org/wp-content/uploads/2012/02/Parents360-Synthetics-Bath-Salts-K2-Spice-Parents-Guide-FINAL-2-13-12.pdf

For Further Information

American Association of Poison Control Centers
www.aapcc.org

Drug Enforcement Administration
www.justice.gov/dea

Gateway Foundation
www.recovergateway.org

Minnesota Prevention Resource Center
www.mnprc.org/resources

National Institute on Drug Abuse
www.drugabuse.gov

The Partnership® at DrugFree.org
www.drugfree.org

Substance Abuse and Mental Health Services Administration
www.samhsa.gov

WebMD
www.webmd.com

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