



# DPHHS HAN HEALTH ADVISORY

## Cover Sheet

**DATE:** April 30, 2019

**SUBJECT:** Increasing Risk from Synthetic Cathinones in Montana

### INSTRUCTIONS:

***DISTRIBUTE*** to your local HAN contacts. This HAN is intended for general sharing of information.

- Time for Forwarding: **As Soon As Possible**
- Please forward to DPHHS at [hhshan@mt.gov](mailto:hhshan@mt.gov)
- **Remove this cover sheet before redistributing and replace it with your own**

**For LOCAL HEALTH  
DEPARTMENT reference only**

DPHHS Subject Matter Resource for more information regarding this HAN, contact:

**DPHHS EMS Section**

**1-406-444-3895**

**DPHHS Health Alert Hotline:  
1-800-701-5769**

**DPHHS HAN Website:  
[www.han.mt.gov](http://www.han.mt.gov)**

## REMOVE THIS COVER SHEET BEFORE REDISTRIBUTING AND REPLACE IT WITH YOUR OWN

**Please ensure that DPHHS is included on your HAN distribution list.  
[hhshan@mt.gov](mailto:hhshan@mt.gov)**

### Categories of Health Alert Messages:

**Health Alert:** conveys the highest level of importance; warrants immediate action or attention.

**Health Advisory:** provides important information for a specific incident or situation; may not require immediate action.

**Health Update:** provides updated information regarding an incident or situation; unlikely to require immediate action.

**Information Service:** passes along low level priority messages that do not fit other HAN categories and are for informational purposes only.

**Please update your HAN contact information on the Montana Public Health Directory**

# Information Sheet

**Date:** May 2, 2019

**Subject:** Increasing Risk from Synthetic Cathinones in Montana

## **Background:**

There has been an increase in cases of patients coming to emergency departments with overdose symptoms like synthetic cathinone use. Police note that these cases have been generally located in Yellowstone County, but have the possibility of spreading to other parts of the state.

Synthetic Cathinones are a class of human-made stimulant drugs that take the form of a white or brown crystal-like powder<sup>1</sup>. Synthetic Cathinones are more commonly known as “bath salts” and may include other drugs such as “Flakka.”<sup>2</sup> Synthetic Cathinones can be injected, snorted, or put into an e-cigarette and vaped. The effects of the drug can last as little as a few hours but may linger on for several days.

Synthetic cathinone use can lead to “excited delirium” which involves hyperstimulation, paranoia, extreme agitation, aberrant and ‘bizarre’ behavior, delusions and hallucinations, acute psychosis, combativeness, and self-destructive behavior. Patients may exhibit super-human strength and a zombie-like appearance. Symptoms include rapid heartbeat and palpitations, hypertension, hyperthermia (105°F or higher), prolonged dilation of the pupil of the eye, teeth grinding, sweating, headaches, and seizures<sup>2,3,4</sup>

## **Recommendations:**

- *Public health departments:*
  - Raise awareness among key partners and stakeholders to the potential threat of bath salt/Flakka use in your community.
  - Contact your local healthcare providers and distribute the attached information to local hospital emergency departments, EMS personnel and law enforcement.
- *Facility Medical professionals:*
  - Increase your level of suspicion regarding the potential for bath salt/Flakka use in patients presenting with extreme behavior and agitation.
  - Ensure safety of staff members and bystanders. Call local law enforcement for assistance and manage patients with extreme caution. See attached FLAKKA Tip Sheet for recommendations.
  - The neurological effects of bath salt/Flakka toxicity may be treated with drugs such as benzodiazepines, to counteract agitation and aberrant behavior.
  - The cardiac effects of these drugs can be addressed with the intravenous administration of low-dose norepinephrine (to normalize heart rate and blood pressure) over several hours (typically not more than 6 hours).
  - Treat Malignant Hyperthermia, if indicated.
  - Order diagnostic testing to determine if cause of symptoms is due to bath salts/Flakka.
    - Flakka test for alpha-pyrrolidinopentiophenone (A-PVP)
    - Blood for acute exposure. WBC count is typically elevated.

- Urine for assessing long term exposure
  - Targeted substance abuse recovery for those experiencing problems with bath salt/Flakka use may include inpatient rehab or outpatient treatment.
  - If patient can give any information regarding their possible exposure to bath salts/Flakka, report it in their medical records as a chief complaint or as a triage update. This will allow for syndromic surveillance at the state level to flag cases and track any trends in usage.
- *EMS/Law Enforcement*
  - EMS providers are likely to be asked to respond with law enforcement to assist officers in restraining the patient, to treat injuries secondary to a violent struggle with police officers, or to treat injuries caused by the patient's own violent, bizarre, and psychotic actions.
  - Like any violent patient, EMS providers should have received training to respond as part of a coordinated effort with law enforcement to use physical restraint and then chemical restraint. Training and pre-planning can reduce the risk of injury to the emergency responders, as well as reduce the likelihood of additional injury to the patient/suspect during the restraint attempt. Please refer to Montana Prehospital Treatment Protocols: [Excited Delirium/Violent Patient Protocol](#)

Here is the web link:

<http://boards.bsd.dli.mt.gov/Portals/133/Documents/med/ecp/MT%20protocol%20V%2011%203%202019.pdf?ver=2019-03-06-104644-380>

- One of the important roles for EMS providers when responding with law enforcement is raising the possibility that the suspect's violent behavior is due to a medical emergency. And that a medical intervention, chemical restraint, may be the key to halting the violent behavior.
- Ketamine, increasingly administered to severely agitated or violent patients, may be within your scope of practice. Check with your medical direction and follow local protocols for ketamine dosing and delivery by intramuscular injection, intranasal atomization, or intravenous injection.
- Share data on bath salt/Flakka encounters with local health departments.

Contact Alyssa Johnson, Trauma System Manager at [alyssa.johnson@mt.gov](mailto:alyssa.johnson@mt.gov) or 406-444-0752 if you have questions or need assistance.

**Additional Information:** For more information regarding synthetic Cathinones, please refer to these resources:

Synthetic Cathinones ("Bath Salts")

<https://www.drugabuse.gov/publications/drugfacts/synthetic-cathinones-bath-salts>

Medicine Net: Flakka

[https://www.medicinenet.com/flakka/article.htm#what\\_is\\_flakka\\_what\\_are\\_the\\_signs\\_and\\_symptoms\\_of\\_flakka\\_abuse](https://www.medicinenet.com/flakka/article.htm#what_is_flakka_what_are_the_signs_and_symptoms_of_flakka_abuse)

1. "Synthetic Cathinones ("Bath Salts")." *National Institute on Drug Abuse*. February 2018. <https://www.drugabuse.gov/publications/drugfacts/synthetic-cathinones-bath-salts>

2. Cunha, J.P. "Flakka." *MedicineNet*, 28 December 2018.  
[https://www.medicinenet.com/flakka/article.htm#what\\_are\\_the\\_complications\\_of\\_flakka\\_use](https://www.medicinenet.com/flakka/article.htm#what_are_the_complications_of_flakka_use).
3. O'Donnell, Diedre. "Flakka Abuse". DrugAbuse.com <https://drugabuse.com/flakka/>
4. Ayer, Uma. "The Effects of Flakka Use". DrugAbuse.com <https://drugabuse.com/flakka/effects-use/>

## FLAKKA Tip Sheet

After speaking with the DEA, it appears that the overdoses we have experienced lately may be from the drug FLAKKA.

FLAKKA is:

- A synthetic stimulant
- A nor-epinephrine and dopamine reuptake inhibitor
- A derivative of bath salts
- Chemical Name: Alphapyrrolidinopentiophenone or A-PVP
- Street Name: Gravel
- Legal for retail sale and can be purchased in smoke shops
- Known to be for sale locally and in the surrounding area

Symptoms of Overdose include:

- Super-human strength
- A zombie-like appearance
- Hyperthermia

Recommended Treatment:

- No antidote
- Supportive care with benzodiazepines
- Treatment of Malignant Hyperthermia, if indicated
- Diagnostic lab: Tested in the Bath Salts test at ARUP, test code is 2011411.
  - Blood for acute exposure.
  - Urine is preferred to assess long term exposure.

Patient Management:

- Patients are very violent, and should be approached with extreme caution.
- In their zombie-like state, these patients seem to be attracted to flashy, shiny objects, and possibly loud noises or wild movements. Recommend calm response, exit room quickly, close door to room upon exiting.
- Patients seem to “follow walls” and may be able to be guided to a desired location by closing and opening relevant doors if they cannot be contained in the exam room.
- Activate a Security Assist through either the button in the room or calling 7111 (but not both at the same time). This will cause a series of notifications, including the AOC and House Supervisor. In addition, it will cause an overhead announcement that will provide situational awareness to others who might enter the department.
- Because these patients may not be able to be physically restrained, call 911 with a low index of suspicion with patients exhibiting violent behavior.

Additional Resources:

<https://en.wikipedia.org/wiki/Alpha-Pyrrolidinopentiophenone>

[https://www.medicinenet.com/flakka/article.htm#what\\_is\\_flakka\\_what\\_are\\_the\\_signs\\_and\\_symptoms\\_of\\_flakka\\_abuse](https://www.medicinenet.com/flakka/article.htm#what_is_flakka_what_are_the_signs_and_symptoms_of_flakka_abuse)