

# DPHHS HAN

## Information Sheet

**Date:** April 30, 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 suggestive of synthetic cathinone use. The Montana Department of Justice notes 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 under the influence of these drugs may exhibit super-human strength and a “zombie-like” affect. 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.
  - Distribute the attached information to local hospital emergency departments, EMS personnel and law enforcement contacts.
- *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 reports exposure or use of 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 may 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. \(http://boards.bsd.dli.mt.gov/Portals/133/Documents/med/ecp/MT\\_protocol\\_V\\_11\\_3\\_2019.pdf?ver=2019-03-06-104644-380\)](http://boards.bsd.dli.mt.gov/Portals/133/Documents/med/ecp/MT_protocol_V_11_3_2019.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. Application of 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.

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/>