

DRUG INFORMATION ALERT

To Soak or Not to Soak: The New Use of “Bath Salts”?

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Recently, synthetic stimulant abuse has rapidly increased throughout the world, especially in the United States (U.S.). In February 2011, the director of the National Institute on Drug Abuse issued a warning concerning the dangers associated with emerging stimulants including compounds that may be found in “bath salts”.¹ Unlike traditional bath salts, “bath salts” sold under various names (e.g., Ivory Wave, Bliss, White Lightning, White Rush, Cloud Nine) do not have any real use as bathing cleansers. These products, which can be purchased in “head shops”, convenience stores, or on the internet, can cause severe psychoses and even death.²

“Bath salts” may contain the active compounds, mephedrone or methylenedioxypyrovalerone (MDPV), which are synthetic derivatives of cathinone, a known central nervous system stimulant.^{3,5} These chemicals are considered to be designer drugs of the phenethylamine class and are structurally related to several compounds including Schedule I hallucinogenics (e.g., LSD, MDMA, PCP).⁵ MDPV is believed to exhibit effects through neurotransmitters such as dopamine and norepinephrine. When inhaled, ingested, injected, or smoked, these substances induce subjective effects (e.g., stimulation, euphoria) that are reported to last 3-4 hours.^{4,5} Other side effects include tachycardia, hypertension, sweating, and vasoconstriction, which often last longer than the subjective effects.^{2,5} Mephedrone and MDPV have also been shown to exhibit their effects through a dose-dependent manner. While the average dose of MDPV from anecdotal reports is 5 mg or less, higher and more frequent dosages have been associated with prolonged panic attacks and increased dependence.⁵ MDPV toxicity has been shown to cause agitation, hallucinations, extreme paranoia, and delusions, which may lead to severe acts of violence to others and to self. Treatment of toxicity generally includes a benzodiazepine, such as lorazepam, to control symptoms; however, antipsychotics can be used if benzodiazepines are ineffective.²

The use of “bath salts” to attain “legal highs” first became public in 2009 across mainland Europe, Ireland, and the United Kingdom.⁶ Today, reports of use in the



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U.S. continue to rise. The DEA's National Forensic Laboratory Information System has reported an increase of 161 disclosed cases of "bath salt" incidents in 2010 compared with only two cases in 2009.⁵ As of April 2011, there have been at least 1,511 calls associated with "bath salt" abuse received by Poison Control Centers (PCCs) in the U.S, which is already five times the reported "bath salt"-associated PCC calls of 2010. This alarming increase in phone calls to the PCC led to an investigation by the Michigan Department of Community Health. Of the 35 cases of "bath salt" abuse identified in Michigan, 17 patients required hospitalization and there was one death. In addition, 63% of subjects were within the 20-29 year age group, almost half had a history of serious mental illness (e.g., bipolar disorder, schizophrenia, depression) and 16 of 17 patients tested positive for illicit drugs.²

Due to the increase in abuse of these products and severity of toxicity, many states (e.g., Michigan, Washington, Florida, Hawaii, Louisiana, Kentucky, North Dakota) have introduced emergency legislation to ban synthetic stimulants.⁷⁻¹⁰ Enforcement, however, poses to be problematic since most items fall out of state jurisdiction as they are sold under inconspicuous names (e.g., Ivory Wave bath salts, plant food, pond water cleaner) and are labeled "not for human consumption." Thus, the products do not meet state and federal requirements to be listed as scheduled substances.² Regardless, some states including Michigan and Louisiana have pursued legislation to classify the substances as Schedule I drugs. Likewise, effective September 1, 2011, the Texas Department of State Health Services will add these compounds to Penalty Group 2 of the Texas Controlled Substances Act.⁷⁻¹⁰

Drug abuse and overdose continue to grow as public health concerns. All healthcare providers and hospitals should report suspected cases of "bath salt" abuse to a PCC. Parents can help protect their children by talking to them about the harms of drug use, monitoring for changes in social and academic behavior, and staying involved in their lives. Research has shown children receive the most impactful message about drug use from their parents. Parents can find tips and advice at www.TheAntiDrug.com. PCCs also offer 24-hour confidential services for any questions about exposure, products, and poison prevention (1-800-222-1222).¹

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