



Memorial Day Tribute at Tahoma National Cemetery

PIC QUESTION OF THE WEEK: 5/30/11

Q: What are the compounds now commonly referred to as bath salts?

A: During the past year, there has been increasing concern over products referred to as *bath salts*. These substances are not intended to be placed in the bath, but are actually designer stimulants distributed in convenience stores, gasoline stations, truck stops, and online. They are sold as *bath salts* as well as *plant food*, *herbal incense*, or *insect repellent*. This variety of product designations is arbitrary, but has allowed for distribution without their being subject to government regulation. Many of the aforementioned items contain potent stimulants including 3,4-methylenedioxypryvalerone (MDPV), 4-methylmethcathinone (mephedrone), etc. One of these compounds, MDPV, is chemically related to methylphenidate and inhibits the reuptake of norepinephrine and dopamine. Low doses appear to result in effects similar to those of methylphenidate while higher doses mimic the action of cocaine. A particular concern is that dependence may develop even after a single exposure. *Bath salts* usually appear as white, tan, or brown powders that can be snorted, smoked, injected, or mixed to produce oral solutions. They cannot be detected through standard drug screens. In central Pennsylvania, these products are being sold under brand names such as Blizzard, Blue Silk, Purple Wave, and Snow Leopard, and are priced from \$20 to \$50 for a 50 mg packet or jar. The clinical effects of a *bath salt* high include lightheadedness, tachycardia, hallucinations, and paranoia that can result in suicidal or homicidal thoughts. Psychosis may also develop and cause the user to become violent and combative. Case reports illustrate multiple examples of self-injury, suicidal behavior, and harm toward others. When a user presents to the emergency department with such symptoms, treatment is difficult because the specific components of the *bath salts* are unknown. Supportive care, fluids, and high dose benzodiazepines have been recommended, but the benefit of such therapy is unclear. Patients may remain hospitalized for days due to the lengthy duration of hallucinations and should be monitored for hypokalemia and elevated levels of creatine kinase (CK) and troponin. Lawmakers recently became aware of these substances and have initiated legislation (e.g. Pennsylvania, Hawaii, Kentucky, etc.) to halt their distribution. These products are currently illegal in Florida and Louisiana. Practitioners should be aware of this new trend in drug abuse.

References:

- “Bath Salts” abuse. Pharmacist’s Letter/Prescriber’s Letter 2011; 27(3):270312.
- The U.S. Department of Justice. Increasing abuse of bath salts. *Drug Alert Watch*. December 17, 2010. <http://www.justice.gov/ndic/pubs43/43474/sw0007p.pdf>. (Accessed May 11, 2011).
- Smith C, Cardile AP, Miller, M. Bath salts as a “legal high”. [published online ahead of print April 25th, 2011] *Am J Med*. doi:10.1016/j.amjmed.2011.03.014

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