

UNIVERSITY of WASHINGTON

ADAI Alcohol &
Drug Abuse
Institute

INFO BRIEF

“Legal Highs” - Synthetic Drugs

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“LEGAL HIGHS” ARE INCREASINGLY MENTIONED in the media locally, nationally, and internationally. “Legal highs” is a broad term referring to substances which are, or seem to be, legal and are being purchased from head shops/drug paraphernalia stores, convenience stores, the Internet, and drug dealers for the purpose of getting high. What many have in common is that they are synthetic or “designer” drugs composed of substances that are not controlled or banned, as are other drugs of abuse. Because of the way they are distributed, it is very difficult for users to know what the actual contents of each drug are. This is a large part of the potential danger -- not knowing what drug you are taking or how strong it is.

Use of “legal highs” has been an issue in Washington State for many years. In 2003, 21% of youth surveyed at raves reported they had used these types of synthetics at least once (Banta-Green 2004). It can be difficult to document the use of these substances, as most users don’t know exactly what they are taking and most standard drug tests cannot detect the chemicals in these compounds.

However, these substances have all been found in evidence sent to the Washington State Patrol’s Crime Lab, and local doctors, the state poison center, and people who do health promotion in the rave/dance scene are also reporting cases of people who appear to be under the effects of these types of drugs. In 2012, President Obama signed the U.S. Food and Drug Administration’s “Synthetic Drug Abuse Prevention Act of 2012,” banning synthetic compounds commonly found in synthetic marijuana, synthetic stimulants (“bath salts”), and hallucinogens by placing them under Schedule 1 of the Controlled Substances Act.

Currently these drugs do not appear to represent a major public health threat in Washington, but there is every reason to believe these types of compounds will continue to be available in the future. The exact drugs will surely change, especially as more and more states begin to ban specific formulations (driving producers to alter their products slightly), but the major concerns -- unknown drug, potency, and effects -- are likely to continue.

MAJOR TYPES OF “LEGAL HIGHS”

Synthetic Cannabinoids/Marijuana

These psychoactive herbal and chemical products mimic the effects of marijuana and have been around since the early 2000s. They are sold under various brand names (“Spice” and “K2” are the most common) and though they are often marketed as “herbal incense” or “herbal smoking blends,” these products also contain synthetic chemicals similar to THC (the active compound in real marijuana). These synthetics are significantly more potent than THC, however.

Side effects include seizures, hallucinations, paranoid behavior, agitation, nausea and vomiting, racing heartbeat, and more.



A bag of Spice
and K2

Bath Salts

This synthetic powder typically contains Mephedrone or the related compound MDPV (both now illegal in the U.S.) and is sold legally online and in drug paraphernalia stores under a variety of names and guises, including "Zoom2" (sold as "plant food"), "Blue Magic," "Ivory Wave," "SilverBack," "White Girl," "Red Dove," "Blue Silk," "Hurricane Charlie," "Ocean Snow," "Vanilla Sky," and more. The products cost anywhere from \$25 to \$40 a packet, and are typically snorted, smoked, injected, and even mixed with water as a beverage.



A Few Brands of Bath Salts

Side effects include: teeth-grinding, chest pains, increased blood pressure and heart rate, agitation, hallucinations/delusions, extreme paranoia and erratic behavior, and seizures.

2C-E

2C-E is a modified phenethylamine designed to produce effects similar to Ecstasy and other hallucinogens. It's sometimes sold under the name "Europa" and comes in a white, crystalline powder. Some compounds in the "2C" family are already designated as controlled substances in the United States (2C-B, for example), but 2C-E and similar compounds 2C-I and 2C-C are not.



20mg 2C-E capsules

Side effects include muscle aches, increased perspiration, nausea and vomiting, dizziness/confusion, unwanted life-changing spiritual experiences, difficulty concentrating, and paranoia/fear. Because the effects of 2C-E can take up to 90 minutes to develop, the risk for overdose is higher than with faster-acting substances, as users may take additional doses, thinking their first dose was ineffective.

FOR HELP

Emergencies: If you or someone you know has taken any kind of drug and needs immediate medical attention, **call 911**. In WA state, people who call 911 to help someone who is overdosing receive immunity for criminal charge of drug possession under the "**911 Good Samaritan Law**;" see <http://stopoverdose.org> for more information.

For non-emergencies, the [Washington Poison Center](#) is staffed with medical professionals trained to know how to treat poison exposures of all types; their services are confidential, free, and available 24 hours a day: 1-800-222-1222.

RESOURCES

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US Drug Enforcement Agency. [Drug Fact Sheet: K2](#) (AKA "Spice"). (date unknown)

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