

## **SYNTHETIC & DESIGNER DRUGS**

The term synthetic and/or “designer drugs” refers to drugs that are created in a laboratory (typically, an “underground,” or secret, illegal lab). They are chemically laced substances created by changing the properties of a drug that comes from a plant – such as cocaine, morphine, or marijuana – using the tools of chemistry. Such drugs are inexpensive and sold over the counter at some convenience stores, gas stations, tobacco shops, and over the internet. Based on their chemical make-up, these drugs are divided into two categories – Cannabinoids and Cathinones.

Synthetic cannabinoids are applied (often sprayed) onto plant material and marketed as a “legal” high. Users claim that synthetic cannabinoids mimic tetrahydrocannabinol (THC), the primary psychoactive active ingredient in marijuana. The drug often goes by the name of Spice, G-Four, K-2, Mojo and is sold as “herbal” smoking mixtures or incense.

Synthetic cathinones are related to amphetamines. Known as bath salts (crystalline power), Flakka, MDMA (Ecstasy), Ketamine, GHB, Rohypnol, LSD (acid), and methamphetamine are some examples of designer drugs. These drugs may also be referred to as “club drugs” because of their use in night clubs.

The contents and effects of synthetic cannabinoids and cathinones are unpredictable due to a constantly changing variety of chemicals used in the manufacturing process devoid of quality controls and government regulatory oversight. Individual products can contain a vast range of different chemical formulations and potencies. Users don’t know what chemicals they are ingesting, much less their potency.

Even if specifically named products are banned, drug makers can easily sidestep regulations by replacing the chemical compound of a banned product with a newer formulation that is not yet known to authorities.

The category of synthetic drugs is one that is very hard to pin down, due to the speed at which this category is expanding. In the last dozen years, the list of synthetic drugs being abused in the US has grown greatly with new synthetics arriving on the market at a shocking rate.

## **HEALTH RISKS**

The effects of synthetic cannabinoids include severe agitation and anxiety, nausea, vomiting, increased heart rate, elevated blood pressure, tremors and seizures, hallucinations, dilated pupils, suicidal and other harmful thoughts and/or actions.

The effects of synthetic cathinones are similar to the adverse effects of cocaine, LSD, and methamphetamine use associated with increased heart rate and blood pressure, chest pain, extreme paranoia, hallucinations, delusions and violent behavior which can cause users to harm themselves and others.

This class of drug is so unpredictable that families trying to deal with someone who has been abusing a synthetic drug may not even be able to successfully do a drug test on the user. This makes these drugs attractive to some who think they can use a drug and not get caught, but their risk is great.

At \$5.00 a pop, the latest designer drug is “Flakka” or “Gravel” because it looks like the colorful gravel pebbles you would place at the bottom of an aquarium.

Flakka is made from a compound called alpha-PVP, a chemical cousin of cathinone, the amphetamine-like drug found in bath salts. Like cathinones, alpha-PVP is a type of stimulant called an “upper.” Uppers are linked with feelings of euphoria, enhanced alertness and wakefulness, and increased movement – all symptoms that are similar to drugs like amphetamines or cocaine and far less expensive. Flakka can be snorted, injected, or swallowed, and has been linked to serious and sometimes deadly behavioral problems. Flakka symptoms are similar to symptoms from high doses of cathinones. Flakka may also cause the body to reach high temperatures that can lead to severe physical complications like kidney damage and muscle breakdown. The US Drug Enforcement Administration saw a 670% increase in the number of reported cases of Flakka use between 2010 and 2014.

## REFERENCES, RESOURCES TO CONTACT, & ADDITIONAL INFORMATION

- Office of National Drug Control Policy (<http://www.whitehouse.gov/ondcp-factsheets/synthetic-drugs-k2-spice-bath-salts>)
- Drug Enforcement Administration (<http://www.justice.gov/dea/divisions/hq/2013/hq062613.shtml>)
- National Institute on Drug Abuse (<http://www.drugabuse.gov/infofacts/Spric.html>)
- American Association of Poison Control Centers (<http://www.aapcc.org/dnn/default.aspx>)
- Narconon (<http://www.narconon.org/drug-abuse-signs-synthetic-drugs.html>)