

Synthetic Cannabinoids (Synthetic Cannabinoid Homologues)

Health Care Provider Fact Sheet

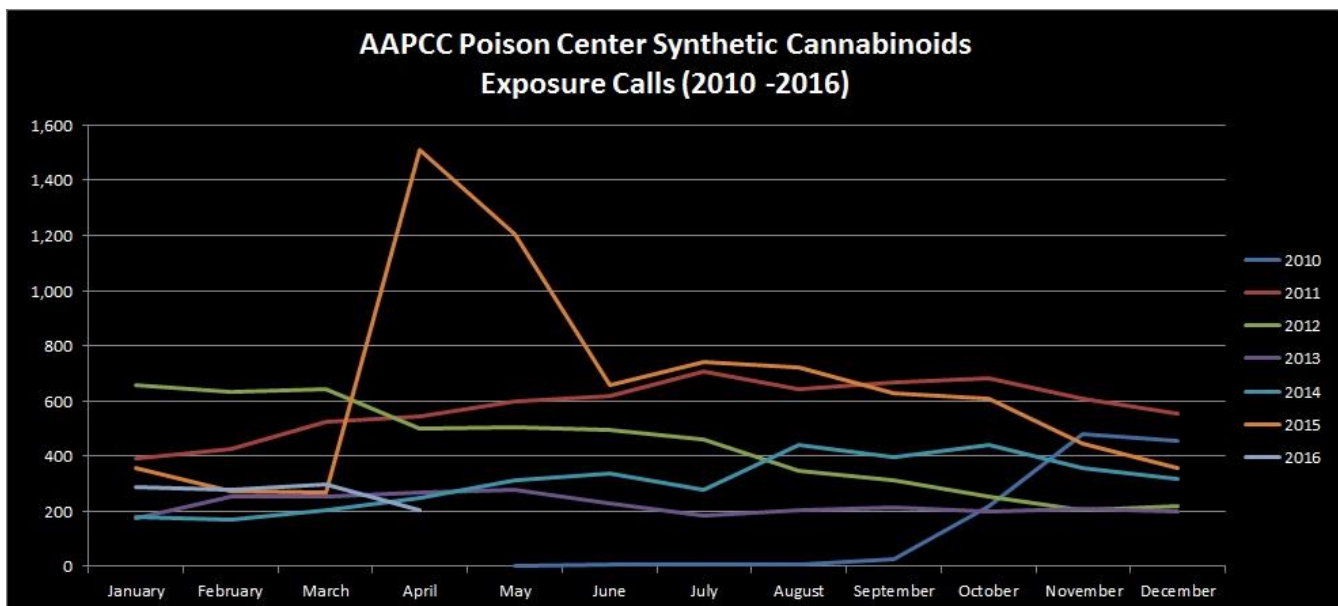
Who is most likely to use synthetic cannabinoids?

Most cases are among males and teens or young adults, in 2012:

- 74% of cases in Michigan were among males.
- 47% of cases were among teens aged 13-19 years.
- 32% of cases were among young adults aged 20-29 years.

How many cases are being seen?

The harmful effects from these products were first reported in the U.S. in 2009. Since then, the drugs have spread throughout the country. Poison centers received 2,668 calls about exposures to these drugs in 2013, 3,682 exposures in 2014, and 7,794 exposures in 2015.



Should cases be reported?

Although there is no mandated reporting requirement, as part of the Michigan Department of Health and Human Services (MDHHS) ongoing surveillance of designer drugs, the PCC is designated as an agent of the health department, allowing and encouraging reporting of all cases of suspected designer drug exposure; call 1-800-222-1222. A designer drug report form is available upon request, to facilitate reporting. These reports are what drives new legislation to remove dangerous ingredients. The drop in call volume shown in the graph above may be related to reduced availability due to successful surveillance and legislative action.

What are the signs/symptoms?

Based on Michigan Poison Control Center data since 2007, there have been 533 patients admitted to emergency departments presenting with tachycardia (22%), drowsiness (25%), hallucinations (16%), hypertension (13%), tremors (7%), seizures (6%), and conduction disturbance (4%). The long-term health effects are not fully known at this time,¹ but several patients have presented with previously undiagnosed psychosis persisting a week or more after the acute effects of the product are anticipated to abate. In Michigan during 2011, 25 persons (11% of cases) had major medical outcomes from their exposure including stroke, irregular heartbeat, and multiple seizures, and one person died. During 2012, there were three deaths.

How do you manage patients with suspected synthetic cannabinoid intoxication?

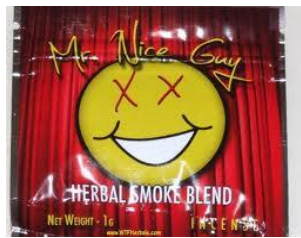
Acute clinical effects may be managed with supportive care, benzodiazepines for agitation and anxiety, and observation until resolution of psychosis, vomiting, and vital sign abnormalities.² Approximately 37% of all

Michigan cases since 2007 have required treatment with benzodiazepines due to severe agitation and/or seizure activity. For individualized treatment recommendations, call the PCC and speak with a medical toxicologist (1-800-222-1222). The synthetic cannabinoids in these products may not show up in routine urine drug screens as they are not structurally related to THC. Specialized testing is available; please contact the PCC for further information.

How is it packaged and what does it contain?

Synthetic cannabinoid powders are usually dissolved in acetone, sprayed on dried plant matter, such as leaves, and sold in a small bag. It is often labeled as incense, potpourri, or herbal smoking blend, and sold under a variety of brand names besides K2 or Spice, such as Genie, Devil's Wrath, Yucatan Fire, King Krypto, Mr. Nice Guy, K-3, Red Magic, Blueberry Medication, Super Skunk, Black Mamba, Bliss, Bombay Blue, and Zohai. Synthetic cannabinoids have also been found to be sold in powder form. The powder is then used to enhance marijuana, sublingual administration, and dissolved in vegetable oil and consumed. Synthetic cannabinoids have also been sold in an e-liquid cartridge for use in electronic cigarettes, as well as for use with rolling papers.

The PCC has observed a trend in newer products "claiming" to be stronger, that contain an "X," such as "11X," indicating a higher potency. The artificial chemical compounds have included: JWH-015, -018, -019, -073, -122, -200, -210, -250, -398; HU-210, -211; CP-47, 497; AM-2201.^{1,3} Package labeling often warns consumers that it is not for human consumption.



Is it legal?

In March 2011, the DEA temporarily placed five synthetic cannabinoids (JWH-018, JWH-073, JWH-200, CP-47,497, and CP-47,497 C8 homologue)³ into Schedule I drugs of the Controlled Substance Act (CSA), with penalties similar to marijuana possession.^{1,3} In 2010, Michigan amended the Public Health Code to add synthetic cannabinoids (JWH-015, JWH-018, JWH-073, JWH-200, JWH-250; HU-210; CP-47,-497 and its side chain homologues) as Schedule I controlled substances.⁴ In 2012, Michigan amended the Public Health Code to create a general class ban on numerous synthetic cannabinoids.⁵ Brands or samples of K2/Spice containing one of these chemicals are illegal. However, as new formulas or versions of these drugs are marketed, they may not contain chemicals covered by the current law. Since the legal status for these drugs is continuously changing, to obtain up-to-date information related to the legality, please call the PCC.

References:

1. <http://www.poisoncentertampa.org/resources/1/substances/Spice-K2.pdf>
2. Rosenbaum CD, Carreiro SP, Babu KM. Here Today, Gone Tomorrow...and Back Again? A Review of Herbal Marijuana Alternatives (K2, Spice), Synthetic Cathinones (Bath Salts), Kratom, Salvia divinorum, Methoxetamine, and Piperazines. *J Med Toxicol.* Mar 2012;8(1):15-32.
3. http://www.dea.gov/pr/multimedia-library/publications/drug_of_abuse.pdf
4. <http://www.legislature.mi.gov/mileg.aspx?page=getObject&objectName=mcl-333-7212>
5. <http://www.legislature.mi.gov/documents/2011-2012/publicact/pdf/2012-PA-0183.pdf>

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For more information, visit: www.michigan.gov/substanceabuseepi
www.michigan.gov/bhrecovery
www.mitoxic.org

