

## Synthetic Marijuana (Synthetic Cannabinoid Homologues)

### Health Care Provider Fact Sheet

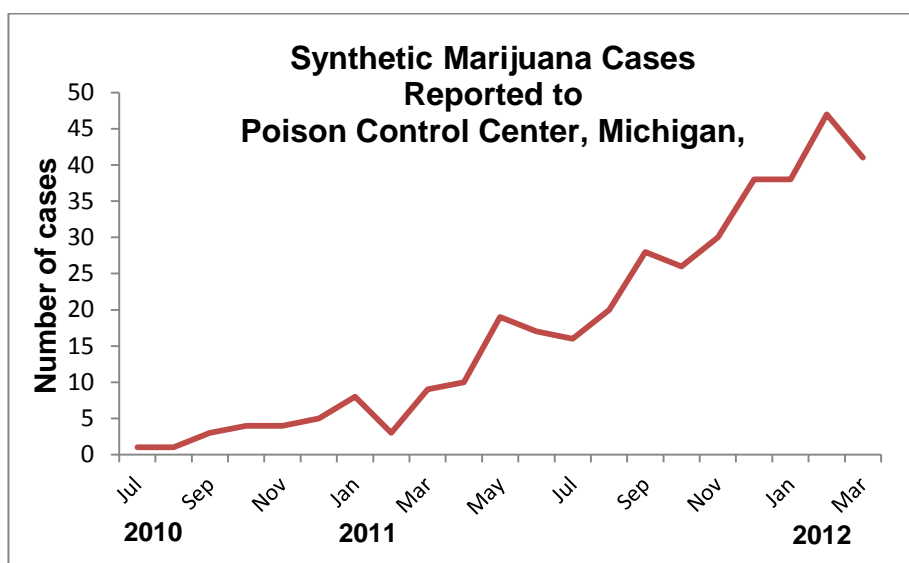
#### Who is most likely to use synthetic marijuana?

Most cases are among males, teens or young adults. In 2011:

- 77% of cases in Michigan were among males.
- 64% of cases were among teens aged 13-19 years.
- 26% of cases were among young adults aged 20-29 years.

#### How many cases have been seen in Michigan?

The Children's Hospital of the Michigan Poison Control Center (PCC) has found the number of cases is rising in Michigan (17 in 2010, 224 in 2011, and 126 in 2012 by the end of March).



#### What are the signs/symptoms?

Patients are presenting to emergency departments with elevated heart rates (35%) and blood pressure (10%), drowsiness (27%), agitation (22%), hallucinations (17%), seizures (7%), tremors (shaking), vomiting, paranoia, and loss of physical control (based on 2011 Michigan PCC data). The long-term health effects are not fully known at this time,<sup>1</sup> 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 died.

#### How do you manage patients with suspected synthetic cannabinoid intoxication?

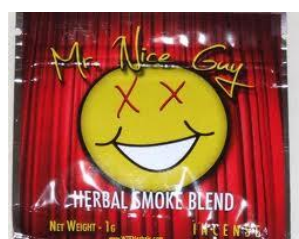
Acute clinical effects may be managed with supportive care, benzodiazepines for agitation and anxiety, and observation until resolution of psychosis, vomiting, and vital sign abnormalities.<sup>2</sup> Approximately 18% of Michigan cases have required treatment with benzodiazepines due to severe agitation 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 will 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 marijuana is usually sold as dried leaves 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.

The PCC has observed a trend in newer products "claiming" to be stronger, which contain an "X," in their name, 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.<sup>1,3</sup> Package labeling often warns consumers that it is not for human consumption.



### Is it legal?

In March 2011, DEA temporarily placed five synthetic cannabinoids (JWH-018, JWH-073, JWH-200, CP-47,497, and CP-47,497 C8 homologue<sup>3</sup>) into Schedule I drugs of the Controlled Substance Act (CSA), with penalties similar to marijuana possession.<sup>1,3</sup> 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.<sup>4</sup> 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.

### Should cases be reported?

Although there is no mandated reporting requirement, as part of the PCC's ongoing surveillance of designer drugs, the PCC encourages hospitals to contact them by calling 1-800-222-1222 or by e-mailing: [ssmolins@dmc.org](mailto:ssmolins@dmc.org). A [designer drug report form](#) is available upon request, to facilitate reporting.

### 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.justice.gov/dea/pubs/abuse/index.htm>
4. [http://www.legislature.mi.gov/\(S\(fic1ydau4gnnoaj41ugcsab\)\)/mileg.aspx?page=getObject&objectName=mcl-333-7212](http://www.legislature.mi.gov/(S(fic1ydau4gnnoaj41ugcsab))/mileg.aspx?page=getObject&objectName=mcl-333-7212)

### Authored by:

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For more information, visit:

[www.michigan.gov/substanceabuseepi](http://www.michigan.gov/substanceabuseepi)  
[www.michigan.gov/mdch-bsaas](http://www.michigan.gov/mdch-bsaas)  
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