Prevention Action Alliance

A Prevention Action Alliance Fact Sheet

Synthetic Marijuana

What It Is – And Why It's More Dangerous



Synthetic marijuana, also known as synthetic cannabinoids, is not marijuana. It is a combination of man-made chemicals that comes in liquid form for vaping or is sprayed onto dried plant material so it can be smoked.

Also known as herbal or liquid incense, K2, Spice, Black Mamba, Kush, Joker, and Kronic, synthetic marijuana is a dangerous, mindaltering chemical.¹

Banned Yet Available?

Back in the mid-2000s when it became popular, the use of Spice was prevalent among teens and young adults. It also was readily and legally available in convenience stores and smoke shops, as well as through online retailers. Because of safety concerns (and the fact that these chemicals have no known medical benefit), there's been a national ban on them in the U.S. since 2012.

There is, however, an ongoing attempt to put synthetic cannabinoids back into the marketplace in altered forms as manufacturers continually change their formulas in attempt to bypass the law.² But synthetic cannabinoids remain classified with a group of drugs known as NPS or new psychoactive substances. NPS are unregulated, mindalternating substances intended to produce the same effect as illegal drugs; and it remains illegal to sell, buy, or possess them. They are, however, sold illegally on the streets.

Not a Safe Alternative

Like marijuana, synthetic marijuana's chemicals are similar to the chemicals found in the marijuana plant. And like marijuana, synthetic marijuana affects the brain – only more powerfully and unpredictably.

The compounds in synthetic marijuana bind to the same receptors in which the cannabinoid THC found the marijuana plant binds. These compounds, however, bind much, much stronger. In fact,

The Effects Are Serious

Synthetic cannabinoid products can it cause serious psychotic and physical effects including:⁴

- Agitation
- •Coma
- Drowsiness
- Elevated blood pressure
- Hallucinations
- Loss of physical control
- Paranoia
- Rapid heart rate
- Tremors
- Violent behavior
- Vomiting
- Seizures
- Suicidal thoughts
- Death (when fentanyl or other synthetic opioids are unknowingly added)

some compounds in synthetic marijuana have been found to be 100 times more potent than the average THC in marijuana.³ This means synthetic marijuana is not only unsafe, it can, in some cases, be more dangerous or even life-threatening.

Spice: Fast Facts

- •It gives a similar "high" as marijuana: Users report experiencing elevated moods, feelings of relaxation, and altered perception.
- •It is still available: Spice is marketed as incense or potpourri and labeled "not for human consumption."
- •It can cause serious side effects: Serious toxicity can occur and some users have required emergency medical treatment.
- •Spice is still popular among teens: 3.3% of high school seniors used synthetic cannabinoids in the past year.5
- •It is addictive: Withdrawal symptoms include anxiety, depression, headaches, and irritability.
- It's not easily detected: Standard drug tests cannot easily identify many of the chemicals used in synthetic marijuana products.

Getting Help

Synthetic marijuana is neither a safe, nor legal alternative to marijuana. Because it is both illegal and unregulated, it also can contain unknown and undesirable substances as well. Alone or in combination with other substances, synthetic marijuana can be toxic, addictive, and dangerous. Overdose or death can happen. If you or someone you know is using these drugs and needs help, call 1-800-273-TALK.

About This Campaign

Because much of the public conversation surrounding marijuana has been based on anecdotes rather than science, Prevention Action Alliance and the Ohio Department of Mental Health and Addiction Services created this campaign to help people better understand the facts about marijuana and its effects.

If you found this article helpful, we encourage you to share it with others. You can also find other fact sheets about marijuana at: preventionactionalliance.org/marijuana

If you have concerns about your own use of marijuana or a loved one's, and wish to seek help, go to: findtreatment.samhsa.gov/

Contact Us

For more information on synthetic marijuana, please contact us at:

Prevention Action Alliance (614) 540-9985 preventionactionalliance.org

About Us



Prevention Action Alliance is a 501(c)3 nonprofit located in Columbus, Ohio. We're dedicated to leading healthy communities in the prevention of substance misuse and the promotion of mental health wellness. Learn more at preventionactionalliance.org.



The mission of the Ohio Department of Mental Health and Addiction Services (OhioMHAS) is to provide statewide leadership on the topics of mental health and addiction prevention, treatment, and recovery. Learn more about OhioMHAS at mha.ohio.gov.

- 1. cdc.gov/marijuana/fags/how-harmful-is-k2-spice.html
- 2. drugabuse.gov/publications/drugfacts/synthetic-cannabinoids-k2soice
- 3. drugs.com/illicit/synthetic-marijuana.html

- 4. colorado.gov/pacific/marijuana/marijuana-basics
- 5. drugabuse.gov/publications/media-guide/most-commonly-used-addictive-drugs