

# Spice

**Street names:** *Fake Weed, K2, Skunk*

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**Revised May 2019**

## What is Spice?

**Also known as:** Black Mamba, Bliss, Bombay Blue, Fake Weed, Genie, K2, Skunk, Yucatan Fire, and Zohai

Spice is a mix of herbs (shredded plant material) and laboratory-made chemicals with mind-altering effects. It is often called "synthetic marijuana" or "fake weed" because some of the chemicals in it are similar to ones in marijuana. But, its effects are sometimes very different from marijuana, and often much stronger. Usually the chemicals are sprayed onto plant materials to make them look like marijuana.



Photo by [DEA](#)

Because the chemicals used in Spice have a high potential for abuse and no medical benefit, the Drug Enforcement Administration has made many of the active chemicals found in Spice illegal. However, the people who make these products try to avoid these laws by using different chemicals in their mixtures.

Spice is most often labeled "not for human consumption" and disguised as incense. Sellers of the drug try to lead people to believe it is "natural" and therefore harmless, but it is neither. In fact, the actual effects of spice can be unpredictable and, in some cases, severe or cause death.

## How Spice is Used

Most people smoke Spice by rolling it in papers (like with marijuana or handmade tobacco cigarettes); sometimes, it is mixed with marijuana. Some people also make it as an herbal tea for drinking. Others buy Spice products as liquids to use in e-cigarettes.

## What happens to your brain when you use Spice?

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Spice has only been around a few years, and research is only just beginning to measure how it affects the brain. What is known is that the chemicals found in Spice attach to the same nerve cell receptors as THC, the main mind-altering ingredient in marijuana. Some of the chemicals in Spice, however, attach to those receptors more strongly than THC, which could lead to much stronger effects. The resulting health effects can be unpredictable and dangerous. Additionally, there are many chemicals that remain unidentified in products sold as Spice and it is therefore not clear how they may affect the user. It is important to remember that chemicals are often being changed as the makers of Spice often alter them to avoid drug laws, which have to target certain chemicals.

Learn more about [how the brain works and what happens when a person uses drugs](#).

## What happens to your body when you use Spice?

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### Short-Term Effects

People who use synthetic cannabinoid report some effects similar to those produced by marijuana:

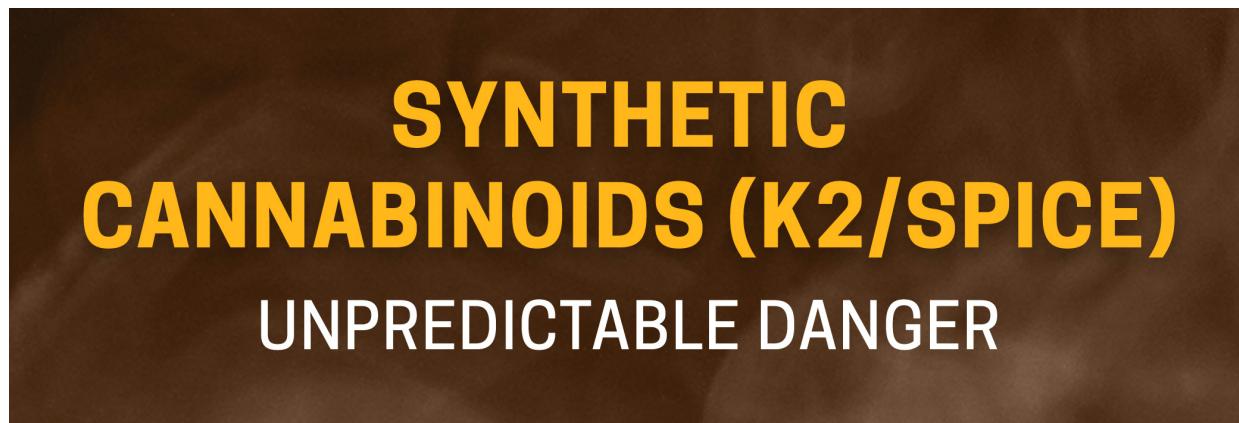
- relaxation
- elevated mood
- altered perception (changes in awareness of objects and conditions)
- psychosis (feeling detached from reality)

People who have had bad reactions to Spice report symptoms like:

- fast heart rate
- throwing up
- extreme anxiety or nervousness
- hallucinations (seeing or hearing things that aren't there)
- feeling confused
- violent behavior
- suicidal thoughts

In a few cases, it has been linked with heart attacks and death.

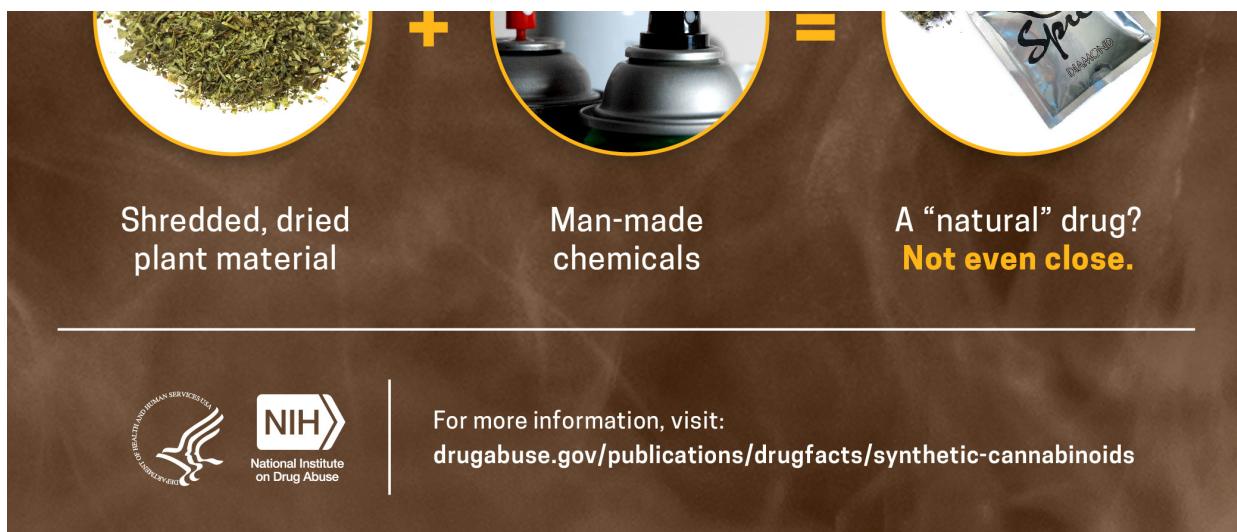
We still do not know all the ways Spice may affect a person's health or how toxic it may be, but it is possible that there may be harmful heavy metal residues in Spice mixtures.



## K2/SPICE IS **NOT** MARIJUANA

It's often called *synthetic marijuana* or *fake weed* because some of its chemicals are like those in marijuana. The effects can be unpredictable and in some cases, severe or even life-threatening.





For more information, visit:

[drugabuse.gov/publications/drugfacts/synthetic-cannabinoids](https://drugabuse.gov/publications/drugfacts/synthetic-cannabinoids)

(View more on NIDA)

## Can you overdose or die if you use Spice?

Yes. Spice use has been linked to a rising number of emergency department visits and to some deaths. Learn more about [drug overdoses in youth](#).

## Is Spice addictive?

Yes, Spice can be addictive. People who use Spice a lot may have withdrawal symptoms if they try to quit. This means they can't stop using it even when they really want to and even after it causes terrible consequences to their health and other parts of their lives. Withdrawal symptoms can include:

- headaches
- anxiety
- depression
- irritability

## How many teens use Spice?

Twelfth graders were first asked about past year use of Spice in 2011. Annual use was found to be 11%, making synthetic marijuana the second most widely used class of illicit drug after marijuana among 12th graders. By 2013, use of synthetic marijuana had dropped in all three grades. These declines continued through 2018 among 8th graders but halted in 2017 among 12th graders and in 2018 among 10th graders. Below is a chart showing the percentage of teens who use Spice.

### Monitoring the Future Study: Trends in Prevalence of K2/Spice (Synthetic Marijuana) for 8th Graders, 10th Graders, and 12th Graders; 2018 (in percent)

Drug	Time Period	8th Graders	10th Graders	12th Graders
K2/Spice (Synthetic Marijuana)	Past Year	1.60	2.90	3.50

For more statistics on teen drug use, see [NIDA's Monitoring the Future study](#).

## What should I do if someone I know needs help?

If you, or a friend, are in crisis and need to speak with someone now:

- **Call the National Suicide Prevention Lifeline at 1-800-273-TALK** (they don't just talk about suicide—they cover a lot of issues and will help put you in touch with someone close by)

If you want to help a friend, you can:

- Share resources from this site, including this page.
- Point your friend to [NIDA's Step by Step Guide for Teens and Young Adults](#).
- Encourage your friend to speak with a trusted adult.

If a friend is using drugs, you might have to step away from the friendship for a while. It is important to protect your own mental health and not put yourself in situations where drugs are being used.

For more information on how to help a friend or loved one, visit our [Have a Drug Problem, Need Help? page.](#)

## Where can I get more information?

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### Drug Facts

#### NIDA Resources:

- [DrugFacts: Spice \("Synthetic Marijuana"\)](#)

#### Other Resources:

- [Slang Terms and Code Words: A Reference for Law Enforcement Personnel \(PDF, 1MB\)](#) [Drug Enforcement Agency]

#### Educator Resources:

- [How Dangerous Are Synthetic Drugs? Test Your Knowledge](#)

## Statistics and Trends

#### NIDA Resources:

- [DrugFacts: High School and Youth Trends](#)

#### Educator Resources:

- [Monitoring the Future](#) [Monitoring the Future (University of Michigan)]
- [National Survey on Drug Use and Health](#) [Substance Abuse and Mental Health Services Administration]

## Games



## National Drug IQ Challenge

Challenge yourself—test your knowledge of drugs and drug abuse.

## Blog Posts



### K2/Spice: An Unpredictable Danger

November 06, 2017 / The NIDA Blog Team

K2/Spice is not marijuana, and it's not safe. [Read More »](#)

1 COMMENT



### Why Be a Zombie?—Spice and Health Risks

August 18, 2015 / The NIDA Blog Team

If you use Spice, you don't know what you're putting into your body—or what those unknown ingredients can do once they get inside you. [Read More »](#)

41 COMMENTS





## How Is Spice Made?

June 22, 2015 / The NIDA Blog Team

Nobody can say what's in the batch of Spice you end up with. If you don't know what it's made of, there's no way to predict what it will do to you. [Read More »](#)

17 COMMENTS

[VIEW MORE □](#)

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## Publications



## DrugFacts: K2/Spice ("Synthetic Marijuana")

Provides information about spice, a family of herbal mixtures that produce effects similar to that of marijuana, including how it is used, its popularity among youth, and potential health effects.

**Download PDF** 597.94 KB

## Chat Day Transcripts

**salawani Garcia Middle School, Texas:**

what does spice or k2 contain that harms our body

**Michele Rankin**

Hi salawani - Spice is a mix of herbs (shredded plant material) and manmade chemicals with mind-altering effects. It is often called "synthetic marijuana" or "fake weed" because some of the chemicals in it are similar to ones in marijuana; but its effects are sometimes very different from marijuana, and frequently much stronger. You can read more about Spice here: <https://teens.drugabuse.gov/drug-facts/spice>

**LMemon Garcia Middle School, Texas:**

What are the active ingredients in spice that make it so addictive

**Wilson Compton**

LMemon - Thanks for your question. We don't always know what's in a synthetic drug, like "Spice", but it is usually a chemical variant of THC -- the active ingredient in marijuana. Unfortunately, the chemical modifications make it really unpredictable and potentially dangerous. See more info here: <https://teens.drugabuse.gov/drug-facts/spice>.

**AT Garcia Middle School, Texas:**

why do they call marijuana spice

**Wilson Compton**

AT - Spice is usually a term for a chemical version of THC, the main intoxicating drug in marijuana. Because the chemical changes and variations can be unpredictable, the effects of Spice can be unpredictable and dangerous. See more info here:<https://teens.drugabuse.gov/drug-facts/spice>.

[VIEW MORE □](#)**Infographics**

## DRUG & ALCOHOL USE IN COLLEGE-AGE ADULTS IN 2017

2017 Monitoring the Future College Students and Young Adults Survey Results

 [VIEW ONLINE](#) [DOWNLOAD PDF](#)

### Drug and Alcohol Use in College-Age Adults in 2017

Published: September 05, 2018

The 2017 Monitoring the Future College Students and Young Adults survey shows trends in the use of marijuana, alcohol, nicotine, and synthetic drugs in college students and non-college peers.

# SYNTHETIC CANNABINOIDS (K2/SPICE) UNPREDICTABLE DANGER

 [VIEW ONLINE](#) [DOWNLOAD PDF](#)

## Synthetic Cannabinoids (K2/Spice) Unpredictable Danger

Published: October 05, 2017

This infographic shows that synthetic cannabinoids, like K2 or Spice, are not natural drugs and can lead to dangerous health effects.

# Drug and Alcohol Use in College-Age Adults in 2015

2015 Monitoring the Future  
College Students and Adults Survey Results

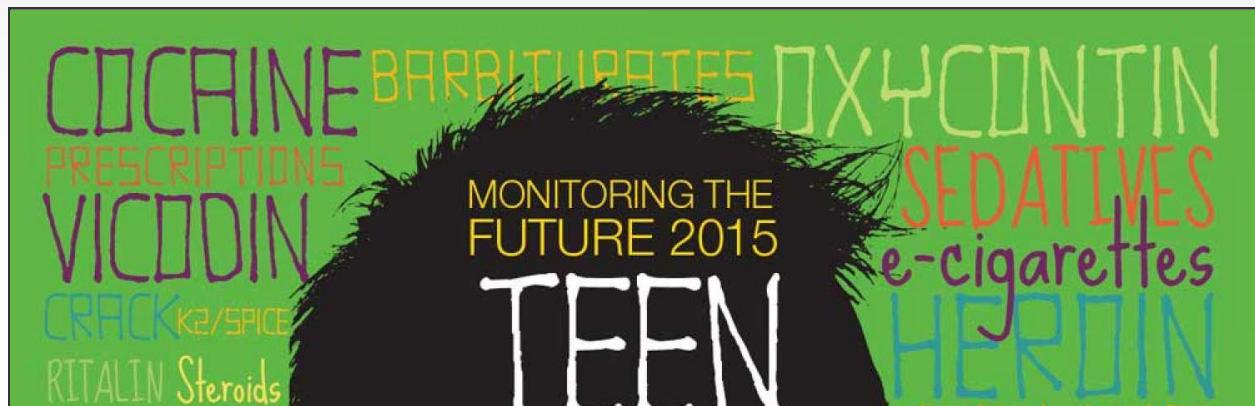
 [VIEW ONLINE](#) [DOWNLOAD PDF](#)

## Drug and Alcohol Use in College-Age Adults in 2015

Published: November 03, 2016

The 2015 Monitoring the Future College Students and Adults survey shows trends in the use of

alcohol, marijuana, nicotine, cocaine, and other drugs in college students and non-college peers.

 [VIEW ONLINE](#) [DOWNLOAD PDF](#)

## Monitoring the Future 2015 Survey Results

Published: December 16, 2015

NIH's 2015 Monitoring the Future survey shows long term decline in illicit drug use, prescription opioid abuse, cigarette and alcohol use among the nation's youth.

## Synthetic Marijuana Lands Thousands of Young People in the ER, Especially Young Males

Since bursting on the scene a few years ago, synthetic marijuana (MJ)—often called “Spice” or “K2”—has become the second most popular illegal drug among American teenagers, after MJ. It is especially popular among teenage boys. Sometimes touted as a “natural,” “safe,” and (until recently) legal

 [VIEW ONLINE](#) [DOWNLOAD PDF](#)

## Synthetic Marijuana Lands Thousands of Young People in the ER,

## Especially Young Males

Published: February 26, 2013

By gender, 14% of male and 8% of female high school seniors abused synthetic marijuana.

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