

CDC: Altered mental state, negative drug screen may signal synthetic cannabinoid use (2)

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Federal officials are urging doctors to keep an eye out for synthetic cannabinoid (SC) intoxication and report cases to poison centers or public health departments.

The Centers for Disease Control and Prevention (CDC) recently held a [Clinician Outreach and Communication Activity \(COCA\) webinar](#) to update health care professionals about the dangers of the drugs and efforts to curb their use.

SCs are “a family of manmade chemicals that bind to the same receptors as THC (tetrahydrocannabinol), the major psychoactive component of marijuana,” according to Amelia M. Kasper, M.D., M.H.S., an officer with the CDC’s Epidemic Intelligence Service Office.

“Because of the unpredictable nature of the content and the constant introduction of new SCs on the market, the clinical effects of SCs are not consistent and can be severe,” Dr. Kasper said.

The drugs, sometimes known by names like K2 or Spice, originally were researched as possible therapeutic agents for cancer and multiple sclerosis. However, they have attracted people looking for a high because they are inexpensive and not detected on standard urine drug tests.



Psychological effects of SCs may include paranoid delusions, anxiety, depression, suicidal thoughts, severe agitation and psychosis. The drugs, which typically are smoked, can impact other parts of the body as well. SCs have been linked to acute kidney damage, hypertension, tachycardia, seizures and death.

“These are full agonists, which means they are anywhere between 10 and 200 times stronger than THC,” said Robert Galli, M.D., emergency medicine professor at the University of Mississippi School of Medicine.

There have been several outbreaks of adverse events in recent years, including a 2015 multistate outbreak linked to more than 700 suspected cases and nine deaths in Mississippi alone. There are no antidotes for SC intoxication. Treatment typically includes supportive care for agitation and elevated creatinine levels.

The drugs often are labeled as “not for human consumption” to skirt some U.S. regulations, but some of them have been deemed Schedule I drugs under federal law, making them illegal to manufacture, distribute

or possess. Many states also have enacted laws to curb SC use.

Still, they can be found online, from dealers and behind the counter at some convenience stores. Users come from both urban and rural areas and are predominantly men in their 20s and 30s. Clusters of illness have been found in adolescents, prison inmates, military personnel and the homeless, according to Dr. Kasper.

However, there was positive news on adolescent use from the [University of Michigan's 2015 Monitoring the Future study](#). Researchers found about 5% of high school seniors had used synthetic cannabinoids in the past year, down from 11% in 2012.

Dr. Kasper recommended health care professionals consider SC intoxication in patients who present with altered mental states and negative drug screens. In order for authorities to monitor clusters of adverse effects, cases should be reported to a public health department or poison center at 1-800-222-1222.

Resources

- [AAP News Parent Plus article "Legal substances land teens in emergency departments"](#)
- [Information for parents on teen drug use](#)

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