

VIEWPOINTS Q&A PUBLIC HEALTH

# Expert tells dangers of synthetic pot

Hospitals across the country are dealing with a rash of illnesses related to synthetic marijuana, known as K2. In April, New York City alone saw more than 120 emergency cases in a single week. Mississippi and Alabama experienced similar numbers.

It appears the trend has made its way to Travis County. As of Monday, more than 145 people have landed in local hospitals since May 29 in Travis County with adverse reactions to K2, also known as Spice, Fake Weed, Yucatan Fire, Bliss, Blaze, Skunk and Moon Rocks. The recent spike has lasted more than 10 days, unlike several waves of medical calls in the past few years that lasted up to four days.

K2 is designed to mimic the narcotic effects of marijuana. Experts have described K2 as plant products doused with chemicals. The drug typically sells in colorful packages at convenience stores, head shops and on the street for between \$5 and \$10. Adverse reactions to the drug have included unconsciousness, seizures, aggressive behavior and paranoia, EMS officials have said.

Even with the recent surge in medical calls for the use of K2, Austin police have said they have few enforcement tools to track street-level dealers of K2.

To be clear, synthetic drugs are illegal by state and federal law. However, the laws only target specific synthetic drug strands. When Texas lawmakers passed the Texas Controlled Substance Act of 2011, they did not expect the chemical makeup and the names of the more than 100 compounds listed in the act to be altered. The narrow list of synthetic drugs has given K2 manufacturers a loophole and a means to avoid penalties. In essence, the drug that is currently sending so many to the hospital in Travis County is still legal under Texas state law, at least until the new laws passed this session go into effect Sept. 1. Then, the new laws will impose criminal penalties for those possessing and manufacturing all known existing as well as future strands of K2.

To better understand the effects of K2, we reached out to Dr. Jane Maxwell, a research professor at the School of Social Work at the University of Texas.

Below are condensed versions of Maxwell's answers. More questions and answers are available at [viewpoints.blog.statesman.com](http://viewpoints.blog.statesman.com).

American-Statesman: What do you think is causing a sudden spike in K2-related medical calls?

Maxwell: Let's look at the history of both synthetic cannabinoids and synthetic cathinones, as they are considered psychoactive substances. Cannabis and synthetic cannabinoids produce euphoria, elation, slowed reaction time and distorted perception. Synthetic cathinones are stimulant drugs that imitate the khat plant, which is used in Africa and the Middle East. In 2012, we referred to these cathinone products as "Bath Salts," but now we know they are related to mephedrone, methylone and 4-MEC.

These synthetic drugs (Spice, Bath Salts and Plant Food) are chemically based and are not derived from plants. They have a complex chemistry, and the manufacturers are constantly changing to "stay legal."

If they are selling the stuff as cigarettes, I'd be inclined to suspect that we are seeing cigarettes that contain PCP.

How much more dangerous is K2 than LSD?

LSD cases seen and reported in the Texas poison control data are fairly rare. LSD is a hallucinogen and its effects are different from the cannabinoids, so let's talk about the dangers of the synthetic cannabinoids and cathinones, since we are having so many problems with them right now.

Initially, the synthetic cannabinoids had effects similar to cannabis and use seemed to be by those who had to provide urine (samples) free of drugs and they could use the cannabinoids and get similar effects as marijuana but not test positive. Since then, there are more reports of tachycardia, hypertension, chest pain, nausea, vomiting, agitation, confusion, drowsiness, hallucinations, seizures, hyperventilation and problems serious enough to be seen in the emergency room.

Part of what seems to be happening, in my opinion, is that the drugs, which are based on raw chemicals from China, may be different now than in the past.

I also wonder, given some of the descriptions of the recent cases, if some of the physical violence seen with these individuals is due to cathinones rather than cannabinoids. When 35 cases occur over a weekend, there is not time to do much in the way of toxicological analysis, and often the only information immediately available is the empty packages lying on the ground, and we know the contents of identical packages picked up at the same spot can vary in their contents. Analyzing cannabinoids and cathinones takes time. And the descriptions of the behaviors of the individuals certainly sound like PCP in some cases.

How difficult is it to recover from K2 addiction?

These drugs are so new that there has not been time to do the longterm studies which are needed to determine treatment effectiveness. We know that the detoxification from heroin is much more uncomfortable, whereas treating the cannabinoid or cathinone patient is treatment in the emergency room or intensive care.

Has the state invested in any education outreach campaign about the dangers of K2?

Remember that we have only been dealing with these drugs since 2010, and it has been a difficult process to figure out the changing chemistry and to obtain epidemiological data to see the changes over time.

TEA used to have a required drug education module, but with all the testing requirements and new curriculum requirements, the drug classes have been de-emphasized.

What can parents do to make kids aware of the dangers?

Love them, talk with them — not to them — and stay informed. In terms of preventing drug use, we have always encouraged parents to talk to their kids about drugs. The problem with these new drugs is the parents do not know much about them, so how can they talk to their kids? Parents need to learn about these new drugs.



Austin police confiscated this packet of K2. Experts have described K2 as plant products doused with chemicals.

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