



## LabINFO NEWSLETTER

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This newsletter is provided by the Lorain County Crime/Drug Lab discussing technical and general information dedicated to local agencies within Lorain County. The information has been collected from various sources and journals.

### FDA Warns of Synthetic Cannabinoids Laced with Anticoagulant

Source: [www.drugabuse.gov](http://www.drugabuse.gov)

The U.S. Food and Drug Administration issued a [warning statement](#) on July 19, 2018 about numerous health emergencies, mostly in Midwestern states, caused by consumption of [synthetic cannabinoid](#) products laced with brodifacoum, an anticoagulant (blood-thinning) compound commonly used in rat poison. Hundreds of users of synthetic cannabinoid products typically sold in gas stations and convenience stores under various brand names such as "K2" and "Spice" have been treated for complications such as bleeding, and several people have died. Users of these products should be alert for bleeding and other symptoms like easy bruising, oozing gums, and nosebleeds and seek medical attention if they suspect they may have consumed contaminated drugs. Brodifacoum remains in the body a long time and can raise bleeding risk for weeks after consumption.

#### Physical signs of heroin overdose include:

- **Face is extremely pale or clammy to touch**
- **Breathing is very slow or stopped**
- **Fingernails or lips are blue or purple**
- **Vomiting or making gurgling noises**
- **Cannot be woken up from sleep or unable to speak**
- **Slow heartbeat and/or low blood pressure**

### VETERINARY CLINICS

Opioid diversion and misuse is a problem affecting everyone in the veterinary clinics – from staff to pet owners to pets themselves. Of the 189 veterinarians surveyed, 13% reported that they had seen a client who they believed had purposely injured a pet, made them ill, or made them appear to be unwell. Close to 45% of those surveyed knew of a pet owner or member of their team who was abusing opioids; 12% acknowledged that were aware of a staff member diverting opioids or abusing them. [Recent survey conducted by the Center for Health, Work & Environment at the Colorado School of Public Health at CU Anschutz and a local veterinary association. August 10, 2018.](#)



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### VAPING COULD DAMAGE BACTERIA-FIGHTING LUNG CELLS

*Scientists cautioned smoking e-cigarettes may not be as safe as previously thought.*

Vaping could damage important immune cells in the lungs and trigger inflammation, according to a study.

Inside our lungs, protective cells known as *alveolar macrophages* fight and eat up debris such as bacteria, dust particles and allergens. The research published in the Journal *Thorax* published by the *BMJ* indicates e-cigarette vapor disables these cells.

The researchers warned their findings add to concerns among health experts that vaping is perhaps not as healthy as previously thought.

### e-CIGS LINKED TO HEART ATTACKS

*Source: ([www.drugabuse.gov](http://www.drugabuse.gov))*

An analysis of health data concludes that e-cigarette use, adjusted for smoking conventional cigarettes and other risk factors, is associated with increased risk of myocardial infarction, which is commonly known as a heart attack caused by blockage of the arteries. Scientists noted that dual use of e-cigarettes and conventional cigarettes—the most common use pattern among e-cigarette users—is more dangerous than using either product alone. The study was funded by the National Institute on Drug Abuse, the National Cancer Institute and the U.S. Food and Drug Administration.

**Deaths from self injury, a category that includes drug and alcohol use and committing suicide, has surpassed diabetes as the seventh-leading cause in the U.S., a study has shown.** *(Source: US Center for Disease Control and Prevention)*

### WHAT ARE SYNTHETIC CANNABINOIDS?

Synthetic cannabinoids refer to a growing number of human-made mind-altering chemicals sprayed on dried, shredded plant material or vaporized to produce a high. Synthetic cannabinoids are sometimes misleadingly called "synthetic marijuana" (or "fake weed") because they act on the same brain cell receptors as THC, the mind-altering ingredient in marijuana.



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The effects of synthetic cannabinoids can be unpredictable and severe or even life-threatening. The only parts of synthetic cannabinoid products that are "natural" are the dried plant materials. Chemical tests show that their active ingredients are human-made cannabinoid compounds.

Synthetic cannabinoid users report some effects similar to those produced by marijuana:

- elevated mood
- relaxation
- altered perception
- symptoms of psychosis

Synthetic cannabinoids can also cause serious mental and physical health problems including:

- rapid heart rate
- vomiting
- violent behavior
- suicidal thoughts

Synthetic cannabinoids can be addictive. Behavioral therapies and medications have not specifically been tested for treatment of addiction to these products.

### **DRUG OVERDOSE EPIDEMIC HAS BEEN GROWING EXPONENTIALLY FOR DECADES**

Source: [www.forensicmag.com](http://www.forensicmag.com)

Death rates from drug overdoses in the U.S. have been on an exponential growth curve that began at least 15 years before the mid-1990s surge in opioid prescribing, suggesting that overdose death rates may continue along this same historical growth trajectory for years to come, according to a University of Pittsburgh Graduate School of Public Health analysis published in *Science*.

The type of drug and the demographics of those who die from overdoses have fluctuated over the years. When the use of one drug waned, a new drug filled in, attracting new populations from different geographic regions at faster rates. These findings suggest that, to be successful, prevention efforts must extend beyond control of specific drugs to address deeper factors driving the epidemic.



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### METHAMPHETAMINE

(Trade Name: Desoxyn®; Street Names: Meth, Speed, Crystal, Glass, Ice, Crank, Yaba)

[Source: [www.dea.org](http://www.dea.org)]

Methamphetamine is a highly addictive drug with potent central nervous system (CNS) stimulant properties. In the 1960s, methamphetamine pharmaceutical products were widely available and extensively diverted and abused. The placement of methamphetamine into schedule II of the Controlled Substance Act (CSA) in 1971 and the removal of methamphetamine injectable formulations from the United States market, combined with a better appreciation for its high abuse potential, led to a drastic reduction in the abuse of this drug. However, a resurgence of methamphetamine abuse occurred in the 1980s and it is currently considered a major drug of abuse. The widespread availability of methamphetamine today is largely fueled by illicit production in large and small clandestine laboratories throughout the United States and illegal production and importation from Mexico. In some areas of the country methamphetamine abuse has outpaced heroin and cocaine.

Methamphetamine is abused for its stimulant and euphoric effects. It can be taken orally, snorted, smoked, and injected. Smoking or injecting methamphetamine results in intense euphoria and is often associated with binge use, large escalation in dose with rapid tissue tolerance, and high rates of dependence and addiction.

Methamphetamine is in schedule II of the CSA.

#### Physical signs of heroin overdose include:

- Face is extremely pale or clammy to touch
- Breathing is very slow or stopped
- Body is limp
- Fingernails or lips are blue or purple
- Vomiting or making gurgling noises
- Cannot be woken up from sleep or unable to speak
- Slow heartbeat and/or low blood pressure

#### FDA approves first medication to reduce opioid withdrawal symptoms

[Source: [www.drugabuse.gov](http://www.drugabuse.gov)]

The National Institute on Drug Abuse (NIDA), part of the National Institutes of Health, is pleased to announce that LOFEXIDINE, the first medication for use in reducing symptoms associated with opioid withdrawal in adults, has been approved by the U.S. Food and Drug



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Administration. Lofexidine, an oral tablet, is designed to manage the symptoms patients often experience during opioid discontinuation. Opioid withdrawal symptoms, which can begin as early as a few hours after the drug was last taken, may include aches and pains, muscle spasms/twitching, stomach cramps, muscular tension, heart pounding, insomnia/problems sleeping, feelings of coldness, runny eyes, yawning, and feeling sick, among others. The product will be marketed under the brand name LUCEMYRA™.

## OPERATION MEDICINE CABINET

Operation Medicine Cabinet is operated by the Lorain County Drug Task Force twice a year. This is the best way Lorain County residents are able to ultimately dispose unwanted, expired and unused prescriptions, including over-the counter medicines. It is usually held in spring and fall of each year.

### HEROIN

[Source: [www.dea.gov](http://www.dea.gov)]

**What is it? An opiate (narcotic) drug processed from morphine and extracted from certain poppy plants. Heroin comes in a white or brownish powder, or a black sticky substance known as “black tar heroin.” Often “cut” with other drugs or substances such as sugar or powdered milk. User is unaware how much actual heroin is being used, creating likelihood of overdose.**

### SUBSTANCE USE DISORDERS

[Source: [www.samhsa.gov](http://www.samhsa.gov)]

Substance use disorders occur when the recurrent use of alcohol and/or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home.

According to the DSM-5, a diagnosis of substance use disorder is based on evidence of impaired control, social impairment, risky use, and pharmacological criteria.

### MEDICATED-ASSISTED TREATMENT

[Source: [www.samhsa.gov](http://www.samhsa.gov)]

Medicated-Assisted Treatment (MAT) is the use of FDA- approved medications, in combination with counseling and behavioral therapies, to provide a “whole-patient” approach to the treatment of substance use disorders.



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There are three medications commonly used to treat opioid addiction:

- [Methadone](#) – clinic-based opioid agonist that does not block other narcotics while preventing withdrawal while taking it; daily liquid dispensed only in specialty regulated clinics
- [Naltrexone](#) – office-based non-addictive opioid antagonist that blocks the effects of other narcotics; daily pill or monthly injection
- [Buprenorphine](#) – office-based opioid agonist/ antagonist that blocks other narcotics while reducing withdrawal risk; daily dissolving tablet, cheek film, or 6-month implant under the skin

### CAN A PERSON OVERDOSE ON KRATOM?

[Source: [www.drugabuse.gov](http://www.drugabuse.gov)]

In 2017, the Food and Drug Administration (FDA) began issuing a [series of warnings](#) about kratom and now identifies [at least 44 deaths](#) related to its use, with at least one case being investigated as possible use of pure kratom. Most kratom associated deaths appear to have resulted from adulterated products (other drugs mixed in with the kratom) or [taking kratom along with other potent substances](#), including illicit drugs, opioids, benzodiazepines, alcohol, gabapentin, and over-the-counter medications, such as cough syrup. Also, there have been some reports of [kratom packaged as dietary supplements](#) or dietary ingredients that were laced with other compounds that caused deaths.

#### Is kratom addictive?

Like other drugs with opioid-like effects, kratom might cause dependence, which means users will feel physical withdrawal symptoms when they stop taking the drug. Some users have reported becoming addicted to kratom. Withdrawal symptoms include:

- muscle aches
- insomnia
- irritability
- hostility
- aggression
- emotional changes
- runny nose
- jerky movements



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### GLOBAL HANDWASHING DAY

*Global Handwashing Day is celebrated each year on October 15 as a way to increase awareness and understanding of the benefits of handwashing with soap. You'll never know, but you could be handling illegal drugs without knowing it.*

### GOVERNMENT REGULATION OF E-CIGARETTES

(Source: [www.drugabuse.gov](http://www.drugabuse.gov))

In 2016, the FDA established a rule for e-cigarettes and their liquid solutions. Because e-cigarettes contain nicotine derived from tobacco, they are now subject to government regulation as tobacco products, including the requirement that both in-store and online purchasers be at least 18 years of age (see "[E-cigarette Use in Teens](#)"). For more information about this ruling, visit the FDA's webpage, [The Facts on the FDA's New Tobacco Rule](#).

### HOW SCIENCE HAS REVOLUTIONIZED THE UNDERSTANDING OF DRUG ADDICTION

Source: Nora D. Volkow, M.D. - Director, National Institute on Drug Abuse (NIDA) [[www.drugabuse.gov](http://www.drugabuse.gov)]

For much of the past century, scientists studying drugs and drug use labored in the shadows of powerful myths and misconceptions about the nature of addiction. When scientists began to study addictive behavior in the 1930s, people addicted to drugs were thought to be morally flawed and lacking in willpower. Those views shaped society's responses to drug use, treating it as a moral failing rather than a health problem, which led to an emphasis on punishment rather than prevention and treatment.

As a result of scientific research, we know that addiction is a medical disorder that affects the brain and changes behavior. We have identified many of the biological and environmental risk factors and are beginning to search for the genetic variations that contribute to the development and progression of the disorder. Scientists use this knowledge to develop effective prevention and treatment approaches that reduce the toll drug use takes on individuals, families, and communities.



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### HISTORY OF VALIUM IN THE UNITED STATES

(Source: [www.thetreatmentcenter.com](http://www.thetreatmentcenter.com))

America's long history with tranquilizers and sedatives started with alcohol and quickly moved into more powerful substances. In the late 1800s, bromides, chloral hydrate, and paraldehyde hit the market for medical and recreational use, followed by barbiturates in the 1900s. In 1954, a pharmacist named Leo Sternbach developed a safer alternative to barbiturates, which had high potential for dependence and overdose. Sternbach invented the world's first clinically useful benzodiazepine, known in 1960 under the trade name Librium (chlordiazepoxide). In 1963, diazepam – the second successful benzo compound – hit the market in the form of Valium.

Valium quickly gained popularity among patients and doctors alike. Between 1969 and 1982, Valium was the number one most-prescribed medication in America. Valium sales peaked at an incredible 2.3 billion pills sold in 1978. During the '80s and '90s, however, the use of Valium came under global scrutiny. Psychiatrists expressed concern regarding the drug's potential for abuse and dependence, as well as issues with over prescribing. While diazepam remains the most widely prescribed psychoactive drug in the U.S, its popularity never again reached the lofty heights it had in the '70s.

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*The information gathered for this newsletter is not necessarily the opinion of the County Crime/Drug Lab staff. The LabINFO Newsletter is solely available for informational purposes only.*