



## LORAIN COUNTY COMMISSIONERS

MATT LUNDY, TED KALO, LORI KOKOSKI

### LabINFO NEWSLETTER

Volume 4, Number 1

APRIL - JUNE, 2016

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.

#### **e-CIGS MAY CONTAIN CHEMICALS TIED TO LUNG DISEASE**

[Source: WebMD News from HealthDay by Robert Preidt; webMD.com]

*Flavoring compounds have been tied to a serious illness known as 'popcorn lung'.*

Many electronic cigarettes contain flavoring chemicals that may cause lung disease, researchers say.

A team from Harvard School of Public Health in Boston tested 51 types of flavored e-cigarettes and liquids. The investigators found that 47 (more than 75 percent) of them contained *diacetyl*.

The chemical has been linked to a severe lung disease called *bronchiolitis obliterans*, also known as "popcorn lung" because it was first diagnosed in workers who inhaled artificial-butter flavoring in factories making microwave popcorn.

Two other related flavoring chemicals that may pose a lung hazard were also found in many of the flavored e-cigarettes and liquids tested, according to researchers led by Joseph Allen, an assistant professor of exposure assessment science at the school.

One such flavoring chemical, *acetoin*, was detected in 46 of the flavors while another, called 2,3-*pentanedione*, was found in 23 of the flavors, the findings showed.

There are currently more than 7,000 varieties of flavored e-cigarettes and liquid, the researchers said, but there's a lack of information on their potential health effects.

#### **NARCAN NASAL SPRAY**

FDA announced its approval of the NARCAN Nasal Spray, an intranasal naloxone formula that can immediately restore normal breathing in a person overdosing on prescription opioids or heroin and thus save their life. While naloxone already exists in injectable formulations, this new nasal spray will make it easier and less intimidating for families, loved ones, friends, and emergency personnel to save the lives of those struggling with addiction, giving them a second chance and hopefully encouraging them to enter into long-term addiction treatment. It can also treat accidental overdoses in pain patients.



## LabINFO NEWSLETTER

Approval of NARCAN Nasal Spray is no small accomplishment. More than 16,000 people die every year from prescription opioids overdoses; another 8,000 die from heroin overdose. Although emergency personnel in some states have been equipped with injectable naloxone for years, often they are too late on the scene to save a life. For that reason, some states have tried pilot programs distributing naloxone to opioids users and their friends and family (along with instructions for use); between 1996 and 2014, over 26,000 overdoses were reversed by non-medical personnel using naloxone. Lorain County is currently using NARCAN nasal spray for opioids and heroin overdose.

### DAMIANA LEAF

[Source: [WebMD.com](http://WebMD.com)]

**Damiana** is a wild shrub that grows in Mexico, Central America, and the West Indies. The leaf and stem are used to make medicine, and now used in manufacturing **SPICE (synthetic cannabinoids)** [Source: [See DEA.gov](http://DEA.gov); [Years in Photos 2015](http://Years in Photos 2015)]. Historically, it was used mostly as an aphrodisiac.

Damiana is used to treat headache, bedwetting, depression, nervous stomach, constipation and boosting mental and physical stamina. Some people inhale Damiana for a slight “*high*.”

*Not enough information to determine Damiana as a supplement!*

### PRESCRIPTION OPIOID ABUSE & HEROIN USE

New data from the Centers for Disease Control and Prevention (CDC) show that opioids—a class of drugs that include prescription pain medications and heroin—were involved in 28,648 deaths in 2014. And between 2002 and 2013, the number of heroin-related deaths in America nearly quadrupled.

More Americans now die every year from drug overdoses than they do in motor vehicle crashes.



## LabINFO NEWSLETTER

### METHAMPHETAMINE

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

Methamphetamine (also called meth, crystal, chalk, and ice, among other terms) is a central nervous system stimulant drug that is similar in structure to amphetamine. It takes the form of a white, odorless, bitter-tasting crystalline powder. Due to its high potential for abuse, methamphetamine is classified as a Schedule II drug and is available only through a prescription that cannot be refilled. Although methamphetamine can be prescribed by a doctor (to treat attention deficit hyperactivity disorder and other conditions), its medical uses are limited, and the doses that are prescribed are much lower than those typically abused. Most of the methamphetamine abused in the country comes from foreign or domestic superlabs, although it can also be made in small, illegal laboratories, where its production endangers the people in the laboratories, neighbors, and the environment.

Methamphetamine is taken orally, smoked, snorted, or dissolved in water or alcohol and injected. Smoking or injecting the drug delivers it very quickly to the brain, where it produces an immediate, intense euphoria. Because the pleasure also fades quickly, users often take repeated doses, in a “binge and crash” pattern.

### STATISTICS & TRENDS

**Monitoring the Future Study: Trends in Prevalence of Methamphetamine for 8th Graders, 10th Graders, and 12th Graders; 2015 (in percent)\***

Drug	Time Period	8th Graders	10th Graders	12th Graders
Methamphetamine	Lifetime	0.80	1.30	1.00
	Past Year	0.50	0.80	0.60
	Past Month	0.30	0.30	0.40

Page 3 of 7



## LabINFO NEWSLETTER

POSSIBLE HEALTH EFFECTS

Short-term	Increased wakefulness and physical activity; decreased appetite; increased breathing, heart rate, blood pressure, temperature; irregular heartbeat.
Long-term	Anxiety, confusion, insomnia, mood problems, violent behavior, paranoia, hallucinations, delusions, weight loss, severe dental problems (“meth mouth”), intense itching leading to skin sores from scratching.
Other Health-related Issues	Pregnancy: premature delivery; separation of the placenta from the uterus; low birth weight; lethargy; heart and brain problems.  Risk of HIV, hepatitis, and other infectious diseases from shared needles.
In Combination with Alcohol	Masks the depressant effect of alcohol, increasing risk of alcohol overdose; may increase blood pressure and jitters.
Withdrawal Symptoms	Depression, anxiety, tiredness.

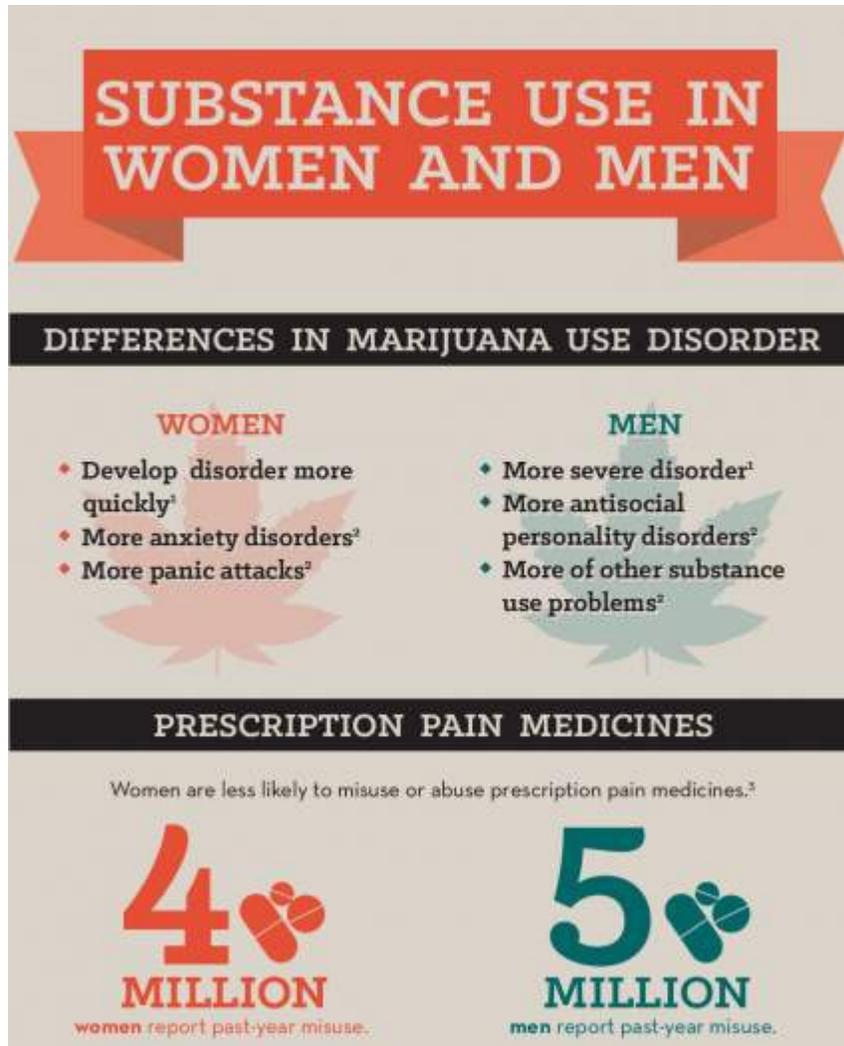
### EPHEDRA (MA HUANG)

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

Ephedra sinica, a species of ephedra (ma huang), contains ephedrine and pseudoephedrine. Ephedra has been found to stimulate the nervous system, increase airflow into the lungs and constrict blood vessels. In combination with caffeine, ephedra appears to cause weight loss. However, effects of ephedra or ephedrine monotherapy have been mixed. Ephedrine has been widely studied for asthma and low blood pressure. However, quality research of commercial supplements with ephedra is lacking.

Major safety concerns have been associated with ephedra or ephedrine use, including high blood pressure, increased heart rate, nervous system excitation, irregular heartbeat, heart attack, and stroke.





**SOURCE**

Substance Abuse and Mental Health Services Administration. *Results from the 2012 National Survey on Drug Use and Health: Summary of National Findings*. NSDUH Series H-46, HHS Publication No. (SMA) 13-4795. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013. Available at <http://www.samhsa.gov/data/NSDUH/2012SummNatFindDetTables/NationalFindings/NSDUHresults2012.htm#ch2.10>



**LabINFO NEWSLETTER**

**CLUB DRUGS**

Club drugs tend to be used by teenagers and young adults at bars, nightclubs, concerts, and parties. Club drugs include [GHB](#), [Rohypnol®](#), [ketamine](#), [MDMA \(Ecstasy\)](#), [Methamphetamine](#), and [LSD \(Acid\)](#).

**Statistics and Trends**

**Monitoring the Future Study: Trends in Prevalence of Various Drugs for 8th Graders, 10th Graders, and 12th Graders; 2015 (in percent)\***

Drug	Time Period	8th Graders	10th Graders	12th Graders
GHB	Past Year	-	-	0.70
	Lifetime	1.30	3.00	4.30
LSD	Past Year	0.90	2.00	2.90
	Lifetime	2.30	[3.80]	[5.90]
MDMA	Past Year	1.40	[2.40]	[3.60]
	Past Year	-	-	1.40
Ketamine	Lifetime	0.80	1.30	1.00
	Past Year	0.50	0.80	0.60
Methamphetamine	Lifetime	0.80	0.50	-
	Past Year	0.30	0.20	1.00
Rohypnol	Lifetime	0.80	0.50	-
	Past Year	0.30	0.20	1.00

\* Data in brackets indicate statistically significant change from the previous year. See [www.drugabuse.gov](http://www.drugabuse.gov)



**National Survey on Drug Use and Health: Trends in Prevalence of Various Drugs for  
Ages 12 or Older, Ages 12 to 17, Ages 18 to 25, and Ages 26 or Older; 2014 (in percent)\***

Drug	Time Period	Ages 12 or Older	Ages 12 to 17	Ages 18 to 25	Ages 26 or Older
<b>LSD</b>	Lifetime	9.40	[1.20]	7.00	10.90
	Past Year	0.50	[0.90]	2.30	0.10
<b>MDMA</b>	Lifetime	6.60	[1.20]	12.00	6.40
	Past Year	0.90	0.70	3.50	0.50
<b>Methamphetamine</b>	Lifetime	4.90	[0.70]	3.00	5.70
	Past Year	0.50	0.40	1.00	0.40
<b>Psychotherapeutics (Nonmedical Use)</b>	Lifetime	20.50	9.20	26.30	20.90
	Past Year	5.60	6.20	11.80	4.50

^ indicate low precision; no estimate reported. Data in brackets indicate statistically significant change from the previous year.

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

Compiled by: Emmanuel G. de Leon  
Director, Lorain County Crime/Drug Lab

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.