



LORAIN COUNTY COMMISSIONERS

LabINFO NEWSLETTER

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

COMMONLY ABUSED PRESCRIPTION and OVER-THE-COUNTER (OTC) DRUGS

Source: www.webMD.com

Over the counter and prescription drugs can help and heal us. But they can be addictive and dangerous if they're used in the wrong way.

1. **BARBITURATES:** Phenobarbital, Meberal, Nembutal and Seconal are sedatives. They help with anxiety, sleep problems, and some seizures. But if you take more than you should, you can get addicted. High doses can cause trouble breathing, especially when you drink alcohol.
2. **BENZODIAZEPINES:** Valium and Xanax are two examples of benzodiazepines- another type of sedative that can help with anxiety, panic attacks and sleep problems. Overused can also lead to physical dependence and addiction.
3. **SLEEP MEDICINE PILLS:** Hypnotic drugs like Ambien, Lunesta and Sonata can help you get the rest you need, but if you use them longer than your doctor prescribes, you may start to believe you need them in order to sleep. Doctors are concerned about abuse if they are not taken as prescribed.
4. **CODEINE & MORPHINE:** Some of the most common abused prescription meds are painkillers – specifically, opioids. These drugs dull pain, but in large doses they can also cause euphoric high – and dangerous side effects.
5. **OXYCONTIN, PERCOCET:** Another opioids painkiller is Oxycodone. It's in drugs like OxyContin, Percocet, Percodan, and Roxicodone. People who abuse Oxycodone sometimes crush it and snort it or inject it, greatly increasing the risk of overdose.
6. **VICODIN, LORTAB, LORCET** contains the opioid Hydrocodone plus acetaminophen. Opioids cause drowsiness and constipation. High doses can cause dangerous breathing problems.



LabINFO Newsletter

7. *AMPHETAMINES*: Stimulants like the amphetamines Adderall and Dexedrine can help people with ADHD, but some people use amphetamines to get high, to increase energy and alertness, or to keep their weight down. You can get addicted to stimulants. High doses can cause a dangerous rise in body temperature, irregular heartbeat, and even cardiac arrest.
8. *METHYLPHENIDATE* is a stimulant in ADHD drugs like Concerta, Metadate, Methylin, and Ritalin. If you take stimulants with common decongestant, it can cause dangerously by high blood pressure or an irregular heartbeat.
9. *DEXTROMETHORPHAN (DXM)*: DXM is a common ingredient in over-the-counter cold and cough medicine – it helps you clear out mucus. But large doses can get you high and cause hallucinations. High doses also cause vomiting, rapid heart rate, and rarely cause brain damage.
10. *PSEUDOEPHEDRINE* is a decongestant in lots of non-prescription cold medicines. While it helps clear up a stuffy nose, it's also an ingredient in illegal Methamphetamine (meth). To curb meth abuse, U.S. laws now control how you buy pseudoephedrine products. That's why some cold medicines are located behind the counter and why you may have to sign for some.

Identifying a suspicious pill, please visit www.drugs.com or www.webMD.com pill identification tool may help. You may need a pharmacist to identify a pill you can't find visiting these websites.

What to do if someone is abusing drugs? The best thing to do is ask directly. Keep an eye out for signs of abuse, like behavior changes, missing medicines, several bottles of cough syrup in the trash can, etc.



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Many kids assume that common household drugs or even prescription medicines are safer than street drugs because they're legal. Explain the risks. Clean out and safeguard your medicine cabinet. Get rid of the drugs you don't need, and keep track of the ones you do. Lorain County Drug Task Force/Sheriff's Office takes unwanted/expired prescription pills twice a year (April & September) through the Operation Medicine Cabinet held at our local police departments.

'POT ADDICTION' MAY BE REAL, STUDY SUGGESTS

Source: www.WebMD.com by Robert Preidt; HealthDay News

Many people believe that marijuana is not addictive, but a new study challenges that theory.

"As more people are able to obtain and consume cannabis legally for medical and, in some states, recreational use, and people are less likely to perceive it as addictive or harmful," study co-author John Kelly, a psychiatrist at Massachusetts General Hospital's Center for Addiction Medicine, said in a hospital news release.

"But research shows that cannabis use can have significant consequences, and we know that among adolescents it is second only to alcohol in rates of misuse," he added.

In the new study, Kelly's team followed outcomes for 127 teens, ages 14 to 19, treated at an outpatient substance abuse clinic. Marijuana was the substance used most often by 90 of the teens.

Of those 90 teens, 76 (84%) met criteria for marijuana dependence, including increased tolerance for, and use of, marijuana, as well as unsuccessful attempts to reduce or stop using the drug. About two-fifths of the 90 teens also experienced symptoms of withdrawal when they stopped using marijuana – a sign of drug dependence, according to the study authors.



LabINFO NEWSLETTER

Teens who exhibited withdrawal symptoms were more likely to experience negative consequences such as trouble at school or on the job, or financial or relationship problems, Kelly's team said.

The teens that developed withdrawal symptoms were also more likely to meet the guidelines for marijuana dependence and for *mood disorders*, according to the study published recently in the Journal of Addiction Medicine.

People who recognized and accepted that they had a substance abuse problem tied to their marijuana use were more likely to make progress towards abstinence, compared to those who did not think they had a problem, the researchers noted.

"The importance of understanding the addictiveness, risks and harms associated with cannabis use is a major theme of this study's findings," said Kelly, an associate professor of psychiatry in addiction medicine at Harvard Medical School in Boston. "Recognizing those risks is known to reduce the likelihood that someone will start to use drugs, and better understanding of the role of substances in the problems experienced by patients may help them cut down on future use."

"Unfortunately, the general trend in attitudes in the U.S. is to minimize the risks and not recognize the addictiveness of cannabis," he added.

The study was supported by a grant from the U.S. National Institute of Alcohol Abuse and Alcoholism.

DRUGGED DRIVING

Source: www.drugabuse.gov [National Institute on Drug Abuse]

Car crashes are a leading cause of death and injury among young people, and alcohol, drugs, or some combination are frequently a contributor to those crashes. Large numbers of U.S. high school seniors and college students put themselves and others at risk of harm by driving after using illicit drugs or drinking alcohol; they also put themselves at risk by riding in a vehicle whose driver is intoxicated.

Thirty-two (32) million people drove after drug or alcohol use in 2012. The highest rate was among 18 to 25 year olds. Impaired driving shows three (3) percent of 12 to 17 year olds, 22% of 18 to 25 year olds, and 12% of those 26 or older under the influence of illicit drugs or alcohol in the past year.



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Driving after marijuana use surpasses drunk driving. College and high school seniors drove or rode with a driver after alcohol or marijuana use. Among college students, nearly 1 in 3 drove after marijuana use and nearly 1 in 2 rode with a driver who had been using marijuana. Traffic Safety facts (2010) shows that 7% of college students drove after drinking alcohol and 31% drove after using marijuana; while 16% rode with a driver who had been drinking alcohol and 45% rode with a driver who used marijuana. Among high school seniors, 9% drove after drinking alcohol and 12% drove after using marijuana; while 15% rode with a driver who had been drinking alcohol and 20% rode with a driver who uses marijuana.

SPICE/K2

Synthetic cannabinoids, or Spice/K2, are designer drugs that mimic Delta-9-Tetrahydrocannabinol (marijuana).

Appearance:

These chemicals are sprayed onto dried herbs and spices similar to potpourri. They are sold in head shops, gas stations, and the internet. Synthetic cannabinoids can be called "Fake Weed", "Legal Marijuana", or "Herbal Incense". Normally, Spice is packaged in 3 grams small envelopes. These envelopes are marked with the disclaimer "Not for human consumption" and "Not for Sale to Minors". Often the manufactures will also print "Lab Certified Legal" on the packaging.

Chemicals:

Most products are made in China, with the herb mixture originating from Central America, Mexico, and the Caribbean. The original Spice compounds were HU-210, HU-211, JWH-018, and JWH-073. These original compounds were criminalized by the state and federal government. Once criminalized, the manufactures changed the chemical compounds. The DEA and local governments continue to monitor the new and emerging chemicals used in Spice mixtures.

[Source: http://www.justice.gov/dea/pr/multimedia-library/publications/drug_of_abuse.pdf#page+62]



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Abuse:

"Synthetic marijuana is ingested in a similar manner to cannabis, either smoked alone in a joint or other device, such as a pipe or a bong, or rolled into a joint with tobacco or natural marijuana. Synthetic pot may also be baked into foods, such as brownies, or made into tea."

[Source: <http://www.drugs.com/illicit/synthetic-marijuana.html>]

Abuse is high among teens due to the easy access and the misconception that Spice is 'natural' and 'safe'. In 2011, one survey showed that synthetic cannabinoid use was second only to THC in high school seniors.

[Source: <http://www.drugabuse.gov/publications/drugfacts/spice-synthetic-marijuana>]

"The harmful effects from these products were first reported in the U.S. in 2009. Since then, the drugs have spread throughout the country. Poison centers received 5,230 calls about exposures to these drugs in 2012 and 2,664 exposures in 2013." From 1/1/2014 to 7/31/2014 the poison control center received 1,719 reports of exposure.

[Source: https://aapcc.s3.amazonaws.com/pdfs/topics/Synthetic_Marijuana_6.2012.pdf]

Abuse may occur due to the ability to 'pass' a standard drug test. "Although synthetic cannabis does not produce positive results in drug tests for cannabis, it is possible to detect its metabolites in human urine."

[Source: http://en.wikipedia.org/wiki/Synthetic_cannabis]

Effects:

The effects of Spice on the user are greatly varied dependant on the chemicals used in the Spice mixture: Paranoia, panic, relaxation, increase heart rate and blood pressure. The long term effects have not been studied.

[Source: http://www.justice.gov/dea/pr/multimedia-library/publications/drugs_of_abuse.pdf#page=62]

Poison control centers report Spice abusers have rapid heart rate, vomiting, agitation, confusion, suicidal thoughts, and hallucinations. Heart attacks, strokes, and seizures have also been reported. Frequent users will exhibit withdrawal symptoms. [6]

[Source: https://aapcc.s3.amazonaws.com/pdfs/topics/Synthetic_Marijuana_6.2012.pdf]



LabINFO NEWSLETTER

ZOLPIDEM: Forensic Toxicological Aspects

[Brand Names: Ambien, Ambien CR, Intermezzo, Zolpimist]

Source: TIAFT Bulletin; Issue 44 Number 2; October, 2014

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Melbourne, Australia*

Zolpidem is a common *hypnotic* found in forensic toxicology cases in many parts of the world and was first made available in 1992. It is prescribed by medical practitioners for the short-term (usually about two to six weeks) treatment of insomnia. It reduces sleep latency and prolongs the duration of sleep. Sleep studies have shown that Alprazolam (Xanax) increases slow wave sleep and have no effect on stage 2 sleep.

Doses tend to range from about 2.5-10 mg with only 5 mg recommended in elderly persons and women.

Various generic forms are available. Some include Adormix, Ambien, Ambien CR, Edluar, Damixan, Domizol, GenRx Zolpide, Hypnogen, Ivedal, Lioran, and many others. The sustained release forms release about 60% of the drug immediately and the remaining 40% is released over a longer duration.

The Australian Therapeutic Goods Administration (TGA), the USA's Food and Drug Administration (FDA) and the European Medicines Agency have issued warnings that zolpidem may be associated with potentially dangerous complex sleep-related behaviors which may include sleep walking, sleep driving and other bizarre behaviors. These side effects can occur at therapeutic doses, without concomitant intake of alcohol, however, if alcohol is also consumed a heightened risk of developing side effects occurs.

Adverse/Toxic Effects

The drug as one would expect from its ability to induce sleep, causes drowsiness and dizziness. It is also associated with headache, nausea and vomiting in a small number of patients using 10 mg or higher doses. The drug can cause small degrees of anterograde amnesia as well as decrements in other cognitive functions and in psychomotor skills similar to most, if not all, benzodiazepines. The duration of these adverse effects are less than 8 hours if normal doses are consumed.



LabINFO Newsletter

The drug has been associated with some unusual side effects, namely parasomnias resulting in sleep walking and eating or cleaning the home while apparently asleep, and more disturbingly sleep driving in a small number of individuals particularly those using higher doses.

Death from overdose to this drug alone is most unusual, although subjects presenting to hospital emergency centers can show extreme drowsiness, ataxia, slurred speech, vomiting and even hallucinations. The drug is more toxic when combined with significant amount of alcohol and/or other CNS (central nervous system) depressant drugs.

Zolpidem has been shown to be associated with impaired driving particularly when driving occurs within 4 hours of a standard dose, misuse of the drug and when combined with other impairing drugs.

Fatalities

The mechanism of death involving Zolpidem is similar to benzodiazepines and other CNS depressant drugs. In overdose the drug can produce sedation, ataxia and coma. CNS depressants such as alcohol and opioids increase the depressant effects of Zolpidem.

Deaths attributed to Zolpidem alone are most uncommon. Most published drug-caused deaths in which Zolpidem was detected have involved a combination of drugs.

FORMALDEHYDE IN e-CIGARETTE VAPOR

High Levels of Formaldehyde in E-Cig Vapor

When users turn up the heat, formaldehyde levels may increase as well

WebMD News from HealthDay

By Dennis Thompson

HealthDay Reporter

WEDNESDAY, Jan. 21, 2015 (HealthDay News) -- E-cigarette vapor can contain cancer-causing [formaldehyde](#) at levels up to 15 times higher than regular cigarettes, a new study finds.

Researchers found that e-cigarettes operated at high voltages produce vapor with large amounts of formaldehyde-containing chemical compounds.



LabINFO Newsletter

This could pose a risk to users who increase the voltage on their e-cigarette to increase the delivery of vaporized nicotine, said study co-author James Pankow, a professor of chemistry and civil and environmental engineering at Portland State University in Oregon.

"We've found there is a hidden form of formaldehyde in e-cigarette vapor that has not typically been measured. It's a chemical that contains formaldehyde in it, and that formaldehyde can be released after inhalation," Pankow said. "People shouldn't assume these e-cigarettes are completely safe."

The findings appear in a letter published Jan. 22 in the *New England Journal of Medicine*.

SOURCES: James Pankow, Ph.D., professor, chemistry and civil and environmental engineering, Portland State University, Portland, Ore.; Gregory Conley, J.D., M.B.A., president, American Vaping Association; Eric Jacobs, Ph.D., strategic director of pharmacoepidemiology, American Cancer Society; Jan. 22, 2015, *New England Journal of Medicine*



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