



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.

ALCOHOL FACTS

Source: www.drugabuse.gov

People who drink too much alcohol might forget things that happened when they were drunk. This is called a blackout.

Effects of Alcohol on Brains and Bodies

These are just some of the problems alcohol can cause:

ALCOHOL POISONING

You can die from drinking a lot of alcohol at one time.

DISEASES

Heavy drinking over the years can raise your risk for stroke (brain injury from a blood clot), cancer, liver disease, and other illnesses. People can forget to use condoms when they're drunk, have unsafe sex, and get HIV/AIDS or hepatitis (a liver disease).

HURTS BABIES

If a pregnant woman drinks alcohol, it can cause brain damage, which can lead to other health problems in the baby.

YOU CAN GET HURT OR KILLED

Being drunk makes you more likely to get hurt or killed. Alcohol is involved in:

- 60 percent of drownings, murders, and deadly burns
- 50 percent of severe injuries and sexual attacks
- 40 percent of deadly driving crashes, deadly falls, and suicides



LabINFO NEWSLETTER

BRAIN DAMAGE

Long-term alcohol abuse can permanently hurt your brain cells. This can make it hard to walk, remember, or learn new things.

ADDICTION

You can get addicted to alcohol just like other drugs. Fortunately, there are medicines and other treatments that can help someone recover from alcohol addiction.

DEA CONSUMER ALERT!

Synthetic Drugs, also referred to as **New Psychoactive Substances (NPS)**, represent an emerging and ongoing public health threat in the United States. Synthetic Drugs may have cute names like **Green Giant, Joker, N-bomb, or Flakka**. Some may be sold in colorful little baggies at gas stations and convenience stores or as a street deal like other illegal drugs.

Don't Be Fooled

Individual products can contain a vast range of different chemical formulations and potency. Consuming these Synthetic Drugs can cause severe **symptoms** to include **seizures, psychotic episodes, suicidal thoughts, respiratory depression and even death**.

Many of these Synthetic Drugs are controlled under federal law which makes manufacturing or distributing them a prosecutable offense, even if it is sold as an over-the-counter item.

NOTE: Adding two stimulant drugs together can have a profound impact on the heart, and that might translate into cardiovascular distress and death. Two drugs working together are just more harmful than one drug working alone, and the results can be catastrophic!!!

JUST THINK TWICE!!!



LabINFO NEWSLETTER

FENTANYL and its ANALOGUES – 5o years on

Global Smart Update by United Nations Office on Drugs and Crime (ONODC)- March, 2017

SHORT SEGMENTS

Beijing, China – September, 2015: Six fentanyl analogues are placed under national control.

On September 29, the Chinese and Food Administration announced “Administrative Measures on Narcotics and Psychotropic Substances without Medical Use” by which 116 psychoactive substances, including six (6) fentanyl analogues, were placed under national control. The six fentanyl analogues that have been placed under national control are acetylfentanyl, butyrfentanyl, Beta-hydroxythiofentanyl, 4-fluorobutyrfentanyl, isobutyrfentanyl and ofentanil. Various other NPS, have also been included to the list of controlled substances. This could mean controlled flow of these analogues to USA.

Beijing, China – May, 2015: Chinese Customs seizes fentanyl and acetylfentanyl destined for Mexico.

Later, in March 2016, the Drug Enforcement Administration (DEA) and Homeland Security Investigations offices in the south-eastern United States also reported to have seized multiple shipments that had come from China containing mislabeled pill presses, as well as *fentanyl, acetylfentanyl, and butyrfentanyl.*

Tokyo, Japan – August, 2016: “Bath salt” containing fentanyl analogues linked to a case of acute poisoning.

In Japan, a forensic autopsy report on a man in his 30s has attributed this case of acute poisoning to a “bath salt” product containing *Acetylfentanyl and 4-methoxy PV8.* It is suggested that the substances had been self-administered by an intravenous injection.

Helsinki, Finland – June, 2015: International cooperation disrupts Acetylfentanyl trafficking.

After being notified by Belgium Customs, 2.36 grams of *Acetylfentanyl* that had been sourced in China were seized in Finland. The substance was in powder form and had been declared as acrylic paint phenolic resin for an individual in Finland. Previously, in 2014, Finland also reported three (3) *Acetylfentanyl* seizures in small quantities that had been discovered in the post and had originated from China and Belgium.



LabINFO NEWSLETTER

Stockholm, Sweden – August, 2016: Fentanyl analogues linked to several deaths and intoxications.

According to the National Board of Forensic Medicine, acrylfentanyl has been linked to 20 deaths that occurred in Sweden between April and August 2016. Between April and November 2015, nine had analytically confirmed intoxications involving Acetylfentanyl, three involving 4-methoxybutyrfentanyl and furanylfentanyl. All of these patients were aged 20 – 4- and mostly male. In 12 of the cases, patients were admitted to intensive care, where two required intubations and mechanical ventilation.

Tallinn, Estonia – July, 2016: Furanylfentanyl is placed under national control.

In July 2016, furanylfentanyl was added to Schedule I of the narcotic and psychotropic substances regulation. Although it has not yet been officially confirmed, the Estonian Forensic Science Institute might have been linked to the use of furanylfentanyl.

Vienna, Austria – May, 2016: UNODC: International control of Acetylfentanyl and MT-45 enters into force.

The decision adopted by the Commission on Narcotic Drugs (CND) during its 59th Session in March 2016 to add the synthetic opioids Acetylfentanyl to Schedule I and MT-45 to Schedule I of the Single Convention on Narcotic Drugs of 1961 entered into force.

Vienna, Austria – November, 2016: Increasing number of non-controlled fentanyl analogues reported to the Early Warning Advisory.

Of the 13 non-controlled fentanyl analogues that have been reported by Member States to the UNODC Early Warning Advisory (EWA) by November 2016, eight have been reported within the last year.



LabINFO NEWSLETTER

Geneva, Switzerland – November, 2016: World Health Organization (WHO) Expert Committee on Drug Dependence reviews twelve (12) psychoactive substances.

At the 38th meeting of the WHO Expert Committee on Drug Dependence, twelve psychoactive substances have been considered for review, among them two synthetic opioids: *U-47700* and *butyrfentanyl*. The other substances reviewed are: *4-MEC*; *3-MEC*; *ethylone*; *pentedrone*; *ethylphenidate*; *methiopropamine*; *MDMB-CHMICA*; *5f-APINACA*; *JWH-073*; AND *XLR-11*.

Brussels, Belgium – 2015: Belgian Customs Service reports seizures of acetylfentanyl en route to France and Germany.

The Belgian Customs Service has reported of three seizure cases of *acetylfentanyl* that were perceived to have been sourced in China to France and Germany. According to Belgian Customs Service, the substances were sourced in China and intended for onward trafficking to an individual in Germany.

Dublin, Ireland – 2016: Authorities in Dublin and Cork investigate deaths involving fentanyl analogues.

Five deaths have been linked to the use of *fluorofentanyl* (isomer not specified) and *ocfentanil* in Dublin and Cork. According to Health Service Executive of Ireland, fentanyl analogues might be sold to drug users as heroin in powder form possibly mixed with heroin or mixed with caffeine and paracetamol to mimic the effect of heroin.

Los Angeles, California – March 2016: Counterfeit Oxycodone and Xanax tablets contains fentanyl and analogues.

In Los Angeles, the DEA seized a counterfeit prescription pill manufacturing site that had employed the use of fentanyl and other synthetic opiates. The DEA of New Jersey in January arrested a counterfeit prescription pill producer, who had manufactured tablets in New York to look like 30 milligram Oxycodone tablets, but in fact contained either *fentanyl citrate* or *acetylfentanyl*. According to the DEA, nine people dies of the use of counterfeit Xanax tablets containing fentanyl in Pinellas County, Florida. Another 52 overdoses and 10 deaths occurred in Sacramento, California, through the use of counterfeit Norco pills containing fentanyl.



LabINFO NEWSLETTER

Washington D.C., United States – 2016: Fentanyl analogues are placed under national control.

Based on the recent surge of fentanyl-related deaths, the DEA issued a nationwide alert on fentanyl and its analogues. Since July, 2015, *acetylfentanyl* is a controlled substance in the United States under Schedule I of the Controlled Substances Act (CSA). In September 2016, the DEA issued a notice of intent to temporarily schedule the synthetic opioid *furanylfentanyl*.

SYNTHETIC PHENETHYLAMINES

Source: www.deadiversion.usdoj.gov

Synthetic phenethylamines, which mimic hallucinogens, have been encountered as powder, liquid solutions, laced on edible items, and soaked onto blotter papers. Two of the known street names are *N-Bomb* and *Smiles*. Like Flakka (Alpha-PVP), phenethylamines are not sold over the counter and are sold like other illegal drugs. The ingestion of extremely small amounts of these substances may result in seizures, cardiac and respiratory arrest, and death.

ANABOLIC STEROIDS

Source: www.deadiversion.usdoj.gov

Anabolic steroids are a class of drugs with a basic steroid ring structure that produce anabolic effects and androgenic effects. Athletes, bodybuilders, and others abuse anabolic steroids with the intent to improve athletic performance, muscle strength, and appearance.

In the U.S., only a small number of anabolic steroids are approved for either human or animal use. Some of the approved medical uses include the treatment of testosterone deficiency, delayed puberty, anemia, breast cancer, and tissue wasting resulting from AIDS. Trenbolone, boldenone and mibolerone are used only in veterinary medicine.

Most anabolic steroids are synthetically manufactured variations of testosterone. No anabolic steroid is devoid of androgenic effects. The anabolic effects include the growth of skeletal and cardiac muscle, bone, and red blood cells, whereas the androgenic effects include the development of male secondary sexual characteristics.



LabINFO NEWSLETTER

Anabolic steroid use can damage the liver and can cause an increase in cholesterol levels. Anabolic steroid use can also induce psychological effects such as aggression, increased feelings of hostility, psychological dependence, and addiction. Upon abrupt termination of long term anabolic steroid use, abusers may experience withdrawal symptoms including severe depression.

Anabolic steroid abuse is often accompanied by the use of other drugs!

Anabolic steroids are abused by professional, amateur, recreational athletes, and bodybuilders. Adolescents and young adults in the general population also abuse steroids for its muscle growth effects.

The National Forensic Laboratory Information System (NFLIS) and System to Retrieve Information from Drug Evidence (STRIDE) indicate that testosterone, methandrostenolone, trenbolone, and stanozolol are the four most frequently encountered steroids by the federal, state, and local forensic laboratories in 2012 and the first quarter of 2013.

By enacting the Anabolic Steroid Control Acts of 1990 and 2004, Congress placed a total of 59 anabolic steroids in Schedule III of the Controlled Substances Act (CSA). The salts, esters, and ethers of these 59 anabolic steroids are also controlled. Congress provided a definition to administratively classify additional steroids as Schedule III anabolic steroids.

KNOW THE FACTS

Source: www.ohioattorneygeneral.gov

- Drug overdoses kill an average of five (5) Ohioans every day.
- Since 2007, unintended drug overdoses have exceeded car crashes as the leading cause of accidental death in Ohio.
- There has been a 366% increase in unintentional drug overdose deaths in Ohio from 2000 to 2012.
- Unintentional drug overdoses caused 1,914 deaths in Ohio in 2012.
- Ohio's heroin-involved death rate increased from 16 percent in 2008 to 35.5 percent in 2012.
- The number of deaths from unintended overdoses of prescription opiates declined in 2012 for the first time since 2003 with a 12 percent reduction between 2011 and 2012 (789 deaths in 2011 vs. 697 deaths in 2012).



LabINFO NEWSLETTER

DRUG FACTS: *Source:* www.deadiversion.usdoj.gov

- Fentanyl is approximately 50 times more potent than Heroin and 100 times more powerful than morphine.
- Fentanyl-related overdose deaths increased from about 550 deaths in 2013 to more than 2,000 deaths in 2014 and 2015.
- Although pharmaceutical fentanyl is diverted for abuse in the United States, the majority of fentanyl drug reports and fentanyl reported with other drugs results from clandestinely produced and trafficked fentanyl not diverted pharmaceutical fentanyl.

CAT vs. KHAT

Methcathinone ("CAT") is a derivative of the naturally occurring stimulant drug *cathinones* ("KHAT").

Cathinones comes from the khat plant, *Cathula edulis*, which is found in Africa and the southern Arabian peninsula.

Khat users chew on the leaves and young shoots. Absorption of cathinones results in effects similar to amphetamine. Plant chewed within 48 hours of harvest (3-14% cathinones).

First synthesized in Germany in 1928, it was used as an anti-depressant in the Soviet Union in the 1930's and 1940's.

In the late 1950's Parke-Davis attempts to find a medical use for the drug, but finds that it is too dangerous and abandons the research.

October 1993, methcathinone was placed into Schedule I of the CSA (Controlled Substances Act). Methcathinone is a potent stimulant and addictive!

LEVAMISOLE

Levamisole is used as a cutting agent to cocaine and other illicit drugs. Studies indicate that levamisole may act on the same receptors as cocaine- possibly enhancing the effects of taking cocaine. It was developed by Janssen



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Pharmaceutical in 1966 and used to treat parasitic worms. Levamisole suppresses production of white blood cells and can cause skin necrosis (attacks the blood vessels leaving the tissue to rot)!

LYSERGIC ACID DIETHYLAMIDE (LSD)

Source: www.dea.gov

LSD is a psychedelic drug known for its psychological (hallucinogenic) effects. It is commonly referred to as "acid."

Humans and animals have ingested plants containing psychoactive compound for years. These plants soon had their place in religious ceremonies and rituals.

LSD was the first psychedelic to have a major impact on modern Western societies. LSD is a synthetic drug with many naturally occurring relatives (e.g., ergot, ergotamine).

People feeling the effects of ergotamine were said to be possessed, a possible reason for the Salem Witch.

One gram of LSD is equivalent to 10,000 doses. It is easily absorbed through the skin with 3000X more potent than mescaline. Half-life is 2.5 hours.

Other forms of LSD include tablets (known as microdots), gelatin squares (known as window pane), and impregnated sugar cubes. LSD has also been available in gel wraps which look like "bubble-wrap" packing material, and is blue in color. LSD is also distributed in liquid form which often is packaged in small bottles typically sold as breath drops. Additionally, LSD has been embedded in candy such as "Gummy Worms," "Sweet Tarts," "Smartie," and "Pez." The most common venues for retail LSD distributions are "raves," dance clubs, and concerts.

Lysergic acid diethylamide acid is in Schedule I of the Controlled Substances Act (CSA). The LSD precursors, ergotamine and ergonovine, are List I chemicals.



LabINFO NEWSLETTER

KROCODIL

The story of desomorphine!

Desomorphine, most commonly referred to by its street name Krocodil/Krokodil, is a designer opiate and morphine derivative originally abused in Russia and other parts of Europe due to its ease of manufacture from codeine. Desomorphine was first synthesized in 1932 by Small et al. In Russia, it's called krokodil because once injected, user's skin turns greenish, dry and cracked like crocodile's. Tissue destruction is not due to the drug itself, but likely due to infections from needle injections, impurities in the drug- causing tissue damage which leads to infection.

Homemade desomorphine surfaces in Siberia in 2002 and clandestine laboratories spread through Russia and the neighboring Soviet republics in 2010. Reports of Krokodil surface in the U.S.A in 2013.

Desomorphine is controlled as a Schedule I substance of the Controlled Substances Act (CSA).

What do teens say is in their e-cig? [Source: www.drugabuse.gov]

66.0 percent say just flavoring, 13.7 percent don't know, 13.2 percent say nicotine, 5.8 percent say marijuana, and 1.3 percent say other. Manufacturers don't have to report e-cig ingredients, so users don't know what's actually in them.

High teen exposure to e-cig advertising

7 in 10 teens are exposed to e-cig ads.

Among middle school students, 52.8 percent are exposed to retail ads, 35.8 percent to internet ads, 34.1 percent to TV and movie ads, and 25.0 percent to newspaper and magazine ads. Among high school students, 56.3 percent are exposed to retail ads, 42.9 percent to internet ads, 38.4 percent to TV and movie ads, and 34.6 percent to newspaper and magazine ads.

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

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