



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.

TATTOOS MAY POSE HEALTH RISKS

[Source: WebMD News from HealthDay by Robert Preidt; published in the journal Contact Dermatitis]

Getting a tattoo may put you at risk for long-term skin problems, a new study warns.

“We were rather alarmed at the high rate of reported chronic complications tied to getting a tattoo,” said Senior Investigator Dr. Marie Leger, an assistant professor in the dermatology department at NYU Langone Medical Center in New York City.

“Given the growing popularity of tattoos, physicians, public health officials and consumers need to be aware of the risks involved,” Leger said in a Langone news release.

For the study, researchers surveyed about 300 New York City adults, aged 18 to 69, with tattoos. Most of them had no more than five (5) tattoos, and the arm was the most popular tattoo site (67 percent).

Up to 6 percent of the study participants experienced some form of tattoo-related *rash*, infection, severe *itching* or swelling that sometimes lasted longer than four (4) months. In some cases, the problem persisted for years, according to the investigators.

The chemicals used in tattoo ink are not standardized or properly regulated, Leger said.

“It is not yet known if the reactions being observed are due to chemicals in the ink itself or to other chemicals, such as preservatives or brighteners, added to them, or to the chemicals’ breakdown over time. The lack of a national database or reporting requirements also hinders reliable monitoring,” Leger said.



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DOES MARIJUANA USE AFFECT DRIVING? [www.drugabuse.gov]



Marijuana (THC) significantly impairs judgment, motor coordination, and reaction time, and studies have found a direct relationship between blood THC concentration and impaired driving ability (6,7). Marijuana is the illicit drug most frequently found in the blood of drivers who have been involved in accidents, including fatal ones (8) (although it is important to note that marijuana can remain detectable in body fluids for days or even weeks after acute intoxication). A meta-analysis of multiple studies found that the risk of being involved in an accident roughly doubles after marijuana use (9).

Accident-involved drivers with THC in their blood, particularly higher levels, are three to five times more likely to be responsible for the accident than drivers who had not used drugs or alcohol. The risk associated with marijuana in combination with alcohol appears to be greater than that for either drug by itself (10).

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PRINCIPLES of DRUG ABUSE TREATMENT for CRIMINAL JUSTICE POPULATIONS *A Research-Based Guide*

Source: www.drugabuse.gov

Nora D. Volkow, M.D., Director of National Institute on Drug Abuse (NIDA)

1. Drug Addiction is a brain disease that affects behavior.
2. Recovery from drug addiction requires effective treatment, followed by management of the problem over time.
3. Treatment must last long enough to produce stable behavioral changes.
4. Assessment is the first step in treatment.
5. Tailoring services to fit the needs of the individual is an important part of effective drug abuse treatment for criminal; justice populations.
6. Drug use during treatment should be carefully monitored.
7. Treatment should target factors that are associated with criminal behavior.
8. Criminal justice supervision should incorporate treatment planning for drug abusing offenders, and treatment provider should be aware of correctional supervision requirements.
9. Continuity of care is essential for drug abusers re-entering the community.
10. A balance of rewards and sanctions encourages pro-social behavior and treatment participation.
11. Offenders with c-occurring drug abuse and mental health problems often require an integrated treatment approach.
12. Medications are an important part of treatment for many drug abusing offenders.
13. Treatment planning fro drug abusing offenders who are living in or re-entering the community should include strategies to prevent and treat serious, chronic medical conditions, such as HIV/AIDS, Hepatitis B and C, and tuberculosis.

A full description of the guide is available at www.drugabuse.gov.



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3 in 10 HAVE DRINKING PROBLEM AT SOME POINT *Effective treatments are available, but fewer than 20 percent get help, study finds*

[WebMD News from HealthDay by Steven Reinberg \[June 3, 2015\]](#)

Nearly 30 percent of Americans have a problem with alcohol at some point in their lives, ranging from binge drinking to full-blown alcoholism, but less than 20 percent are ever treated, a new study found.

Alcohol use disorders (AUD) are among the most common mental health problems worldwide and result in disability, illness and death, researchers from the U.S. National Institute on Alcohol Abuse and Alcoholism (NIAAA) said.

“Alcohol disorders cost the United States \$224 billion a year, said NIAAA Director George Koob.”

Koob thinks people avoid treatment for a variety of reasons. First, there is a stigma to admitting you have a drinking problem. Many people still believe that alcohol disorders are a matter of choice. Alcoholics can be in denial about their problem, Koob added. “That can go on for years until it’s too late.”

The report was published online June 3 in JAMA Psychiatry.

Researchers also found that:

- White and Native American men had the highest rates of lifetime drinking problems – 33 percent and 43 percent, respectively.
- Thirty-seven percent of people aged 18 to 29, and 34 percent of those between 30 and 44 years had lifetime alcohol disorders.
- People previously married or who were never married had high rates of lifetime alcohol problems – 27 percent and 35.5 percent, respectively.
- Alcohol abuse was associated with other problems, including major depressive and bipolar disorders, and antisocial and borderline personality disorders.



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For the study, a research team led by Bridget Grant used data from a 2012-2013 national survey of more than 36,000 adults.

Dr. James Gambit, a professor of psychiatry at the University of North Carolina School of Medicine in Chapel Hill, said the U.S. health care system hasn't paid enough attention to drinking problems.

See full report at www.WebMD.com

INTERNET DRUG KINGPIN GETS LIFE

Ross William Ulbricht, who went by the name "Dread Pirate Roberts" online, was sentenced in Manhattan federal court to life in prison in connection with his operation and ownership of *SILK ROAD- the hidden website designed to enable its users to buy and sell illegal drugs and other unlawful goods and services anonymously and beyond the reach of law enforcement between January 2011 and 2013.*

Transactions were anonymized on SILK ROAD in two (2) ways:

1. using the "Tor Network", a network of computers that conceals the true IP addresses of the computers on the network and thereby, the identities of the network's users.
2. the Bit coin-based payment system facilitated the illegal commerce conducted at the site. The use of this method to transmit and receive funds also worked to conceal the identities and location of the users.

When Ross Ulbricht was sentenced to life in prison without parole, Judge Katherine Forrest in Ulbricht's case, made clear that the severe punishment wasn't only about personal actions in creating the Silk Road's billion-dollar market. The judge is also sending a message to any would-be online drug kingpins who might follow in Ulbricht's footsteps.



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HEROIN USE

Heroin use is growing at a faster rate than any other drug of abuse, almost doubling between 2007 and 2013 – from 161,000 to 289,000 according to SAMHSA (Substance Abuse and Mental Health Services Administration).

According to CDC (Centers for Disease Control), deaths involving Heroin more than tripled between 2007 (2,402) and 2013 (8,260).

According to National Seizure System Data, from 2010 through 2014, Heroin seizures in the U.S. rose 81%, from 2,763 kilograms (6,091.37 pounds) to 5,014 kilograms (11,053.98 pounds).

Heroin is higher in purity than prescription pain relievers, less expensive, and often easier to obtain than illegal prescription drugs. Higher purity allows Heroin to be smoked or snorted, thereby avoiding the stigma associated with injection.

Heroin user today tend to be younger, more affluent, and more ethnically and geographically diverse than ever before, creating more challenges for law enforcement, treatment professionals, and educators.

FENTANYL *(Source: www.dea.gov)*

State, local laboratories reported 3,344 Fentanyl submissions in 2014, up from 942 in 2013. In addition, DEA has identified 15 other Fentanyl-related compounds.

Globally, Fentanyl abuse has increased the past two years in Russia, Ukraine, Sweden and Denmark. Mexican authorities have seizure Fentanyl laboratories there, and intelligence has indicated that the precursor chemicals are from companies from Mexico, Germany, Japan and China.



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Drug overdose deaths continue to be a public health crisis in Ohio with a 366 percent increase in the number of deaths from 2000 to 2012.

Unintentional drug overdoses caused 1,914 deaths in Ohio residents based on data in 2012. *This is the highest number of deaths on record for drug overdose and surpasses the previous highest number (1,765) in 2011 by 8.4 percent.*

In 2012, five Ohioans died every day from unintentional drug overdose, or one every 5 hours.

Source: Ohio Department of Health; Office of Vital Statistics, Analysis Conducted by Injury Prevention Program.

*Additional data, resources and background information are available at:
<http://www.healthyohiprogram.org/vipp/drug/dpoison.aspx>*

FACTS

[Source: www.whitehouse.gov]

4 MINUTES -Every 4 minutes someone in America is sent to treatment instead of prison through drug courts. *[Source: ONDCP]*

10% - The percentage of American 8th graders reporting using an illicit drug in the past month. *[Source: Monitoring the Future]*

1 in 8 – The rate of Americans driving on a weekend night testing positive for an illicit drug. *[Source: NHTSA]*

ONE THIRD – Amount by which the rate of current drug use in America has decreased since the late 1970s. *[Source: SAMHSA]*

\$6,120 per second – Estimated cost of drug use to the U.S. society in lost productivity, health care costs, etc. *[Source: NDIC]*

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DRUG TESTING ADULTERATION

According to the National Survey on Drug Abuse and Health, more than 24 million Americans were current drug users in 2013. Many of these will be asked to take a drug test either as a condition of employment or as a court-ordered mandate. Efforts to cheat on drug testing continue to be a problem for employers, law enforcement, probation/parole, drug treatment facilities, and the criminal justice system.

Several methods have been used to detect urine adulteration. These methods include measuring the temperature, pH, specific gravity and creatinine concentration of the sample. Freshly voided urine should have the following typical characteristics: temperature between 32.5-37.7°C or 90.5-99.8°F, pH within 4.7-7.8, specific gravity within a range of 1.003-1.030 mg/dL. and creatinine concentration of 20-400 mg/dL. If any of these urine parameters is outside the specified range, there is reason to believe that the urine sample has been adulterated or tampered with.

Creatinine is secreted from muscle into urine daily. In the absence of renal disease, rate of creatinine clearance in an individual is relatively constant. Dilution of urine with water or any other non-urine solution can result in a lower creatinine concentration.

A refractometer was designed to measure all solutes in urine by means of refractive index of light. The property of a solution increases at a linear rate with increases in the amount of dissolved solute. Thus the measurement of the refractive index of urine serves the same purpose as a measurement of the *Specific Gravity*, an index of the amount of solids excreted by the kidneys. This is one of the validity tests currently performed at the Lorain County Crime/Drug Lab, in addition to Creatinine.

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Normal Specific Gravity is primarily influenced by the electrolytes and nitrogenous waste products, e.g., urea nitrogen and creatinine dissolved in the urine. Generally the Specific Gravity rises with reduced fluid intake, and drops with increased fluid intake. Low specific gravity is consistently seen in

exaggerated oral fluid intake (hydration). *The Specific Gravity of pure water is 1.000.*

Urine validity/adulteration testing refers to testing conducted by the laboratory to identify any attempt to tamper/adulterate/dilute/substitute a urine specimen. It is performed (prior to drugs of abuse testing) to validate the integrity of urine samples through physiologically means.

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