New Trends in Substance Abuse -Opiates

IJJA Sept. 2017

Lynn Riemer
720-480-0291
trainings@actondrugs.org
www.actondrugs.org
Facebook/ACTonDrugs

Ron Holmes, MD
720-630-5430
rdholmes1@msn.com

Abuse of Prescription Opiates (Pain Killers)

Identifying Narcotic Abuse: Signs of Abuse

- The warning signs of addiction to prescription drugs include the following:
- Using more than the recommended amount of the medication
- Using prescription pills prescribed for others
- Complaining of vague symptoms to get more medication
- Lack of interest in treatment options other than medications
- Mood swings
- Seeing several doctors and/or pharmacies to get more pills

Opioids are commonly prescribed for pain-relief and include morphine, tramadol, opium, codeine, hydrocodone, methadone, hydromorphone, oxycodone, and codeine. Prescription pain-killers within this class include morphine, codeine, hydromorphone (Dilaudid), tramadol (Ultram), oxycodone (OxyContin, Roxicodone, Percodan, Percocet), hydromorphone (Opana), and hydrocodone (Vicodin). Opiates also act as depressants. The popular prescribed painkillers are addictive and abusers may exhibit any of the following:

Signs of Addiction

Constricted pupils	Drowsiness & excessive yawning
Lack of energy/motivation	Become more isolated or alone
Skin cool to touch	Itching of face, arms, and body
Ptosis - “on the nod”	Lack of coordination
Slurred, slowed raspy speech	Inability to concentrate
Slow/shallow breathing	Depression, apathy, & withdrawal
Slowed reaction time	Sweating
Impaired mental function and alertness	Dry mouth
Flushing of neck and face	Drooping eyelids

Women are 2-3 times more likely to be prescribed these drugs and are about 2 times more likely to become addicted. Seniors take more of these drugs than the rest of the population, increasing their odds of becoming addicted. However, recent national studies show that the sharpest increase in users of prescription drugs for non-medical purposes is the 12 to 25 year age group. Those who abuse opioids may intensify their experience by taking the drug in ways other than those prescribed. For example, OxyContin is an oral medication but may be snorted or injected, thereby increasing their risk for serious medical complications, including overdose.

Opiate pain relief

Opioids act by attaching to opioid-receptors that are found in the brain, spinal cord, gastrointestinal tract, and other organs in the body. When these drugs attach to their receptors, they block the perception of pain (and cause brain injury, see below). In addition to relieving pain, opioids produce drowsiness, mental confusion, nausea, and constipation. Some people experience a euphoric response to opioid medications, since these drugs also affect the brain regions involved in reward.

Short Term Effects

Short-term administration of prescription drugs produce euphoria, sedation and a feeling of tranquility. Repeated administration rapidly produces tolerance (increasing the dose, reducing intervals between doses or both) and intense physical dependence. Overdose causes respiratory depression. Continued use of opiates makes the body rely on the presence of the drug to maintain rewarding feelings and other normal behaviors. The person is no longer able to feel the benefits of natural rewards (food, water, sex) and cannot function normally without the drug present.

Long Term Effects

Opiates are considered extremely addictive and this addiction affects the structure and function of the brain, especially motivation and emotions. The ways in which the nerve cells communicate are changed because of damage to neurotransmitters and to the shapes of brain cells. The damage alters the way people behave.

Drug interaction poses another risk. If the physician or pharmacist is not aware of everything that a person is taking they may prescribe a medication that will interact with the illicit drug and result in serious side effects. Vitamins and herbal remedies fall into this category. The combination of alcohol and prescription drugs can affect the central nervous system, leading to respiratory distress or failure, or even death.

Commonly abused prescription opiates

Of the 7 million people abusing prescription drugs, 5 million are abusing opiate painkillers. With the reformulation of OxyContin limiting abuse, the prevalence of other prescription painkillers is increasing.

Oxycodone - Percocet & Roxicodone: Oxycodone is among the fastest growing of all prescription drugs people abuse in the United States. Percocet is the brand name of a painkiller containing oxycodone and acetaminophen (Tylenol). Overdose can cause, abdominal pain, dark urine, clay-colored stools, liver damage, and jaundice. Percocet known as Perc's on the street, can be smoked, snorted, and injected. Percocet taken in large doses, or when the tablet is crushed for snorting, smoking or injecting (destroying the time-release mechanism) and can cause a "high" similar to using to heroin.

Roxicodone is a painkiller in the oxycodone family with a high potential for abuse. It is in an immediate-release form and acts more quickly than the timed-release forms of opiate pain-killers. Addicts and treatment providers state that 30mg of Roxicodone when abused by snorting, smoking, or injecting is the painkiller that produces effects most similar to heroin. On the street it is known as Blues, OxyIR, Blueberry, Thirties, OC, or Roxys.

Oxymorphone – Opana: Opana became more sought after once OxyContin was reformulated. Opana is an extended release opiate painkiller in the oxymorphone family. Many think oxymorphone has less potential for abuse than OxyContin (oxycodone), however oxymorphone is metabolized oxycodone. Opana is extremely potent with many experts claiming it is more addictive than cocaine or heroin. Opana can be snorted, smoked, or injected.

In 2011, Indiana's state health department investigated an increase in Hepatitis C cases in a county in southeastern Indiana. As more Opana users transitioned to injection, hepatitis C spread quickly through sharing of syringes. The CDC estimated that between 2010 and 2012, new hepatitis C infections rose 75%, to about 23,000 new cases a year. In January 2015, the Indiana State Health Department began an ongoing investigation of a rise in HIV cases in this county. Of the 135 confirmed cases of HIV, 108 cases report dissolving and injecting Opana as their drug of choice. This is the first documented HIV outbreak in the United States associated with injection of a prescription painkiller. *(CDC, Morbidity & Mortality Weekly Report, April 2015)*

In August 2012, three cases of unexplained thrombotic thrombocytopenic purpura (TTP), a rare but serious blood disorder, were reported by a nephrologist to the Tennessee Department of Health (TDH). By the end of October, 15 such cases had been reported. A case-control study was conducted, and investigators determined that the cases of TTP-like illness were associated with dissolving and injecting tablets of Opana ER. Seven of the 15 were treated for sepsis and TTP-like illness, 12 patients reported chronic hepatitis C or had a positive test for anti HCV antibodies. Health care providers and pharmacists who prescribe or dispense Opana ER should inform patients of the risks associated with the drug being used in ways other than being prescribed. Health care providers should ask patients with TTP like illness of unknown origin about any IV drug use. *(CDC, Morbidity & Mortality Weekly Report, Jan 2013)*

Signs of Opana overdose:

- Suppression of breathing

- Cold or clammy skin
- Muscle flaccidity
- Stupor
- Coma
- Chest pain
- Drop in blood pressure & heart rate
- Numbness in arms and legs
- Circulatory collapse
- Cardiac Arrest
- Death

***** FDA has removed Opana from the market as of July 2017***

Dilaudid & Fentanyl Abuse:

Dilaudid on the street is known as "Big D" "M-80's" and "Peaches". Dilaudid is a schedule II drug and often used to manage moderate to severe pain. Dilaudid is hydromorphone hydrochloride and is a very powerful semi-synthetic opioid narcotic painkiller considered to be almost 10 times stronger than morphine. Dilaudid is often used as an alternative to morphine. Dilaudid takes effect within 15 minutes and lasts for longer than six hours. It can be addictive like all other opiates. Tolerance and dependence can occur within a couple weeks of use. Dilaudid can be ingested, smoked, snorted or injected.

Common indicators of Dilaudid abuse:

Physical Indicators:

Nausea and vomiting
Respiratory depression
Stomach Pain
Difficulties urinating
Dizziness/lightheadedness
Track marks on arms, legs, between toes
Circulatory collapse
Heart attack
Stroke
Coma
Seizures

Psychological Indicators:

Worsening of emotional wellbeing
Exacerbation of mental illness symptoms
Delusions
Hallucinations
Paranoia

Mood indicators:

Depression
Anxiety
Mood swings
Agitation
Irritability

Fentanyl is one of the strongest opiate drugs on the market. It is a synthetic drug, is 50-100 times more potent than morphine, and 15 times more potent than Heroin. It is used to treat severe pain in individuals with injuries or chronic illness, after surgery or prescribed for individuals who are tolerant to other opiates. It can be powdered out, liquid, pill, lollipop, or gel patch form. It can be ingested, smoked, snorted, injected, or addicts will chew on the patch. Fentanyl is often stolen from hospitals, pharmacies, and home hospice care.

Fentanyl is often added to Heroin on the street when Heroin is dirty or of poor quality. Powdered fentanyl is indistinguishable from heroin so users have no way of knowing if it's mixed in heroin or being sold in replacement of heroin (china white). This potent drug can be used alone or in combination with another substance and just one use, can kill you. More and more states are seeing death from fentanyl overdose alone, indicating it is being sold as heroin or being used as its replacement.

Indicators of Fentanyl abuse:

Dizziness and lightheadedness
Dry mouth
Retention of urine
Suppression of breathing
Severe constipation
Difficulty seeing
Depression
Hallucinations
Bad dreams
Insomnia

Itching or hives	Sweating
Nausea and vomiting	Tremors
Loss of appetite	Swelling of arms and legs
Weight loss	Headaches

Note, "fake" or "mock" Xanax pills laced with Fentanyl have been found on the street causing overdoses and death across the nation.

Poppy Tea

Poppy tea is generally brewed from the seeds, pods, and/or straw of the opium poppy (*papaver somniferum),* grown in Mexico, South America, and Asia. The Poppy seeds and pods contain opiates, including morphine, thebaine, codeine, papaverine, and noscapine, with the pods containing the largest concentration of opiates. The pods can be ordered online, or purchased at hobby stores where they are sold for flower arraignments. Users crush the seeds, pods, and stems (known as straw) then brew in very hot water creating a tea more potent and potentially more likely to cause an opiate-related overdose than brewing the seeds alone. The tea is very bitter, and the darker the color, the more potent it is. Some users add a flavoring to counteract the bitter taste. Some users will evaporate the liquid into a concentrate, and powder it out. They will put the concentrated liquid and/or powder into gel caps to ingest. The pods, straw, powder and liquid concentrates are a controlled schedule II drug by the DEA.

Upon ingestion of the tea, it can take from 20-60 minutes to start to feel the effects, and last about four to eight hours. Since this mixture contains opiates it can be addictive with tolerance building up within a week or two of daily use. Effects are similar to opiates and include: warming sensation throughout body, constricted pupils, euphoria, nausea and vomiting, constipation, stomach and abdominal discomfort, drowsiness, and loss of concentration. Adverse effects, which increase with dosage, can include sleepiness, mild stomachache, lethargy, itching, slowed breathing, and nausea. At high doses, death can occur through respiratory depression. A number of deaths have been reported across the US from the ingestion of poppy tea. The tea has also been known to be mixed with benzodiazepines, increasing the negative effects and resulting in death.

Prescription Codeine: Codeine is an opiate used for managing pain and cough. Teens and young adults are abusing large amounts of liquid cough medications containing codeine in drinks known on the street as Syrup, Lean, Sizzurp, Texas Tea, Memphis Mud, or Purple Drank. This drink contains prescription strength cough medicine with codeine and promethazine (antihistamine) mixed with sugary candy, soda, or Arizona Tea to make it sweet and palatable. The combination is illegal and dangerous. The amount of cough syrup consumed can exceed up to 25 times the recommended dose.

The consumption of large amounts of this drink is glamorized in Hip-Hop music on the internet and on YouTube. There have been a number of arrests and deaths related to this drug combination. Most famously, rapper Lil Wayne talks and raps about use of this drink – he recently spent days in a coma from abusing it. It is also glamorized by the group Three Six Mafia. At least three hip hop rappers or producers have died, including DJ Screw and musician Big Hawk, both from Houston. This concoction is very dangerous since promethazine is a CNS depressant and codeine is a respiratory depressant. If the drink is combined with alcohol or other drugs, the risk of death is even more likely.

Signs of use include: slurred speech, blurred vision, euphoria, dissociation from one's body, impaired motor skills, lethargy, sedation, and drowsiness. Effects of Purple Drank include:

- Constricted pupils that do not respond well to light
- Rough, raspy voice
- Slow, slurred speech
- Uncontrolled eye movement
- Droopy eyes
- Slowed heart rate
- Drowsiness & weakness
- Loss of balance & coordination
- Paleness
- Constipation
- Urinary tract infection
- Dental problems

- Addiction
- Death (fatal respiratory depression)

Designer Opiates

Acetyl Fentanyl: Acetyl fentanyl is a new and lethal drug and is becoming more popular among narcotic abusers. The drug looks similar to heroin and is being sold as heroin. Numerous deaths among intravenous users of this drug have been reported across the US. In fact, the drug came to the attention of authorities after several deaths of narcotic addicts were investigated and the drug was identified in blood samples by ELISA testing (using antibodies) but not detected by GC/MS (detects chemical molecules). The drug is not available by prescription and said not to be available in the US. However, the drug is available online and sold without questions as a "research chemical." Overdoses are treated the same as any opiate overdose. However, the drug is 15X more potent than heroin and larger doses of rescue medications are often necessary.

Carfentanil: This new opiate was first created by Janssen Pharmaceuticals in 1974 and is an analogue of Fentanyl. It is marketed under the trade name *Wildnil* and used as a general anesthetic for large animals, i.e. elephants, rhino's, hippo's and bears. It is extremely potent, and claimed to be 10,000 times more potent than Morphine. It is a white powder that can be used anyway, and sold on the street as Heroin. It can be added in Heroin to make it more potent, and can be mixed with Cocaine as a "speed ball." It is causing deaths across the nation.

U-47700: Known as "pink" on the street, it has been a problem since beginning of 2016. It is a designer opiate being made in drug labs in China. The U in the name stands for Upjohn, a pharmaceutical manufacturer that developed the drug in the mid-1970s. Scientists were looking for a synthetic alternative to morphine. Effects are similar to Tramadol. It is about 8X more potent than Morphine, and can be used any way - injected, snorted, smoked or put in pills and swallowed. Some people have "plugged" it, meaning dissolving it in a little water and using rectally, it will absorb very quickly like a supositoryU-47700 works as a selective μ-opioid receptor. The drug is sold in pill, powder and liquid form, and can be bought online for less than $40 for a bottle of pills. It has been linked to 50 deaths across the nation. It is mixed with Heroin, sold as Heroin, and can be mixed with Cocaine.

Effects from use can be: Muscle aches, nausea & vomiting reported, irritable, mood swings, euphoria, pain relief relaxation, constipation, itching, difficulty urinating, constricted pupils, respiratory depression, death, anxiety suppression, depression. Short duration of effects can cause double dosing. It is corrosive to mucous membranes, and vaporizing the substance can damage the lungs. Sublingual administration is likely to damage the skin in the mouth.

At least three states — Ohio, Wyoming and Georgia — already have taken action to ban U-47700 after it was connected to overdoses. Wisconsin has banned it - it is illegal to buy or possess. A spokeswoman for the U.S. Drug Enforcement Administration said that the agency is studying the opioid but hasn't yet moved to control it. Since Sept of 2016, 15 fatalities have been confirmed. Belgium had a death from U-47700 being mixed with Fentanyl.

Furanyl Fentanyl: This is an illicit designer version of fentanyl being mass-produced in clandestine labs in China - then smuggled into the United States via traditional distribution routes through Mexico. It was first described in patent literature in 1986 and has no approved medical use, and it has also not been approved by the FDA for human consumption. Research shows it to be 5X more potent than fentanyl - has an ED50 value of 0.02 mg/kg in mice.

It has been encountered as a single substance as well as in combination with other substances of abuse, including heroin, fentanyl, butyryl fentanyl, and U-47700. This potent drug has killed hundreds of people throughout Europe and the former Soviet republics, and the US has confirmed 128 fatalities associated with furanyl fentanyl in 2016. It was detected in 24 states in 2016, and is still available across the country. DEA reports use of powder can cause seizures, and treatment centers report users are not responding to normal protocol when trying to get someone off of these powerful drugs - requires higher doses of methadone for detox.

W-18: This designer opiate is likely coming from Chinese drug labs where little-known drugs and analogues of known drugs are mass-produced and sold online. It is 100 times more powerful than fentanyl and 10,000 times more powerful than morphine. It is known on the street as W-18, "beans" or "shady 80's" - a play on 80mg OxyContin pills. This drug can be in powder form and it can also come as little green round pills looking similar to 80mg OxyContin. Close examination reveals they are not Oxy pills. Recently it has been seen on the street sold as Fentanyl pills. The powder has been mixed with heroin, and found cut with Cocaine.

This drug was first synthesized in 1980 at the University of Alberta where scientists were looking at new analgesic drugs, where studies in animals showed it had pain-killing activity in mice. It has no therapeutic use, and due to potency is causing deaths all over Canada and the USA.

Due to the potency of these new designer opiates, Narcon (Naloxone) needs to be administered in high doses. Doctors and EMS across the country report using upwards of 10+ doses to an IV Narcon drip. Even with high doses, the lifesaving efforts often are resulting in death.

Pre-birth exposure to opiates and effects on the newborn

About 4%-10% of women admit taking opiates while pregnant, resulting in more than 500,000 newborns annually exposed to these drugs. The number of babies born with drug withdrawal symptoms tripled from 2000 to 2009 and hospital charges for their care increased from $190 million to $720 million. Fluctuations in an expectant mother's daily opiate use, because of voluntary abstinence or lack of access to the drug, may affect the fetus. Abrupt changes can precipitate the Fetal Abstinence Syndrome and increase the risk of premature delivery, low birth weight, and stillbirth.

Exposure to opiates decreases birth weight, birth length, and head circumference, but has not been associated with congenital malformations. Other associated problems include abnormally high muscle tone (stiffness and rigidity), inconsolability, irritability, sneezing, stuffiness, excessive sucking, poor sucking ability, Sudden Infant Death Syndrome (SIDS) and high-pitched cry. The high-pitched cry may signify a brain abnormality.

About 30% of exposed newborns are born prematurely and have a high mortality rate, either as a result of drug exposure, mother not taking care of herself or a combination of both. Babies may be born addicted to opiates (neonatal abstinence syndrome) and require treatment within the first few weeks of life. Methadone may be prescribed to pregnant women to facilitate withdrawal from opiate addiction and safe guard the newborn infant. Unfortunately, chronic use of methadone also results in neonatal addition and withdrawal problems. Methadone withdrawal may be more severe than withdrawal from heroin or narcotic pain-killers. Buprenorphine may be used to prevent the infant's withdrawal. Although withdrawal from buprenorphine may occur, the symptoms are very mild.

Naloxone (an opiate blocker) is given immediately after birth to any infant born to a mother who is known to be using opium, heroin, methadone, or hydrocodone. However, the mother's drug history may not be known until the infant develops symptoms after birth. Symptoms may start as early as 1 day or as late as 7 days after birth. Symptoms include tremors, irritability, sleep problems, seizures, yawning, stuffy nose, sneezing, unstable temperature, poor feeding, vomiting, and diarrhea.

Treatment includes keeping the infant swaddled and in a quiet, dark room, but most babies need medications. Morphine elixir and phenobarbital are the most commonly used drugs. Treatment may be required for 1-2 weeks or longer.

Mothers who are taking opiates should not breast-feed their infant.

Pre-birth exposure and the long-term consequences for older children

Children whose mothers used opiates during pregnancy have on-going neuro-developmental problems including short attention span, hyperactivity, sleep disturbances and mild memory and perceptual difficulties. Some studies have found evidence of delayed general cognitive function at 3 years of age with lower verbal ability, impaired reading skills, and impaired arithmetic skills. Opiate-exposed children are more likely to have ADHD or other disruptive behavior diagnoses at 10 years of age and 65% of opiate-exposed school age children repeat one or more grades or need special educational services. It is difficult to differentiate the impact of a poor postnatal environment and prenatal opiate exposure on children's long-term outcome and studies of prenatal opiate exposure and infants' early cognitive development yield mixed results. However, there is solid evidence linking exposure to behavioral problems, including ADHD and other disruptive behaviors. Long-term effects on growth have not been documented. (Pediatrics, Feb 2013)

Heroin Abuse

Heroin is an opioid drug synthesized from morphine. Heroin may be a white or brown powder or a black sticky substance known as "Black Tar Heroin." The drug can be smoked or vaporized and inhaled, snorted, sniffed (dissolved in nasal spray), or injected. When

it enters the brain, it is converted back to morphine and binds to opioid brain receptors, especially those in the pain-perception and reward areas of the brain and in the brain-stem which controls wakefulness, blood pressure and breathing.

Moderate doses of heroin cause euphoria, a warm “rush” sensation, constricted pupils, and nausea. Higher doses result in restlessness, constipation, droopy eyelids (on the nod), shallow and slow breathing, depressed cough reflux, sweatiness, lethargy, slow heart rate, and sedation. Overdose results in respiratory failure and death. The drug is highly addictive and withdrawal symptoms (cold turkey) may begin within 6 to 24 hours of discontinuation of the drug. However, the time frame can fluctuate with the degree of tolerance as well as the amount of the last dose.

Withdrawal symptoms may include sweating, malaise, anxiety, depression, priapism, extra sensitivity of the genitals in females, general feeling of heaviness, cramp-like pains in the limbs, excessive yawning or sneezing, tears, runny nose, sleep difficulties (insomnia), cold sweats, chills, severe muscle and bone pain, nausea and vomiting, diarrhea, cramps, and fever.

Heroin abuse is associated with a number of serious health problems including fatal overdose, spontaneous abortion, and serious infectious diseases (HIV, Hepatitis C, sexually transmitted diseases). Pregnant women who are abusing heroin put the fetus at extreme risk. These problems are discussed in the section on the abuse of prescription-pain-killers.

What Are The Warning Signs Of Heroin Use?

- Lack of personal hygiene
- Tendency toward recklessness
- Withdrawal from family and friends
- Items of value being "lost or stolen"
- Burnt foil being present in car, room, or in personal effects
- Mood swings, intense rage, lying, and manipulation
- Sudden drop in grades and excessive ditching at school
- Finding evidence of prescription drugs
- Scratching hands and arms
- Strong craving for sweets, morning, noon, and night.
- Possession of drug paraphernalia (needles, burnt spoons, cotton balls, pens, cut-off water bottles, foil)
- Foil & toilet paper rolls are commonly used to smoke heroin

What Are The Physical Signs Of Heroin Use?

- Runny nose and constant sniffling
- Needle marks on arms and/or legs, between toes, in groin area
- Sores on nostrils and top of lips from smoking heroin
- Constant "hacking" cough from smoking heroin off of tin foil
- Loss of appetite and dramatic weight loss
- Nodding off during day and inability to sleep at night
- Dark circles under eyes and constant sleepy or groggy expression
- Scratch marks all over body, especially neck and arms

Treatment of opiate overdose of prescription drugs and heroin

Opioid-related disorders that require medical management include opioid intoxication, opioid overdose, opioid withdrawal, and treatment of acute pain in people already on maintenance therapy. Short-term and long- term treatment includes a combination of opioid agonist therapy (substituting one drug for another) and psychotherapy.

Deaths from abuse and overdose of these substances are becoming more and more common, especially among women and adolescents. Excessive doses, whether taken by mouth or injection, result in respiratory depression and asphyxiation. In this situation, rapid emergency treatment is imperative. Because overdose usually occurs in the presence of other people and because medical care is often not sought or sought too late, at-home naloxone programs have been piloted and have been found to save

lives. Naloxone prescription programs enable users to have kits on hand to administer intranasal naloxone to reverse the effects of narcotics.

For most addicts long-term treatment begins with detoxification, the controlled and medically supervised withdrawal from the drug. No single approach to detoxification is guaranteed to be best for all addicts. Medications used to detoxify the addict include methadone and buprenorphine or buprenorphine combined with naloxone (Suboxon®). Suboxone is often favored since abuse of this medication will cause withdrawal symptoms that addicts are trying to avoid. Maintenance medications used along with counseling include methadone, buprenorphine, or Suboxone or extended release naltrexone injections. Most addicts will resume taking the drug unless treatment includes long-term psychotherapy.

Opioid withdrawal in the adolescent

Withdrawal symptoms may occur even after short-term use. The symptoms are notoriously challenging and mild symptoms may mimic the flu. The process can be brutally painful and difficult to manage. Depending on the quantity, type, frequency, and duration of opioid use, the physical withdrawal symptoms may last for as little as 48-72 hours (for short-acting opioids such as hydromorphone and oxycodone) and as long as 30-60 days for long-acting opioids such as buprenorphine and methadone.

Symptoms of withdrawal from opiates include, but are not limited to:

Physical Symptoms	***Behavioral Symptoms***
Tremors	Dysphoria
Cramps	Malaise
Muscle and bone pain	Cravings
Chills	Anxiety/Panic attacks
Perspiration (sweating)	Paranoia
Priapism	Insomnia
Tachycardia (rapid heartbeat)	Depression
Itching and excess yawning	Flu-like symptoms

Heroin use during pregnancy and the effect on the fetus, newborn and child

Heroin abuse during pregnancy and its associated environmental factors have been associated with poor fetal growth, premature delivery, premature rupture of membranes, still birth and low birth weight (an important risk factor for developmental delay). Blood tests at birth have shown the infant's blood levels to be 50% - 100% of the mother's drug level. Using heroin also raises the baby's risk of contracting the HIV virus. Babies born to mothers using heroin while they are pregnant inherit their addiction and upon birth must go through withdrawal and treatment of withdrawal.

Low birth weight Babies born to addicted mothers have been shown to have many difficulties later in life, including:

- Language, visuo-motor, and other learning disabilities
- Behavior problems
- Children are more likely to be rejected by peers
- Performance in school may suffer and the children may need special education courses
- Behavioral problems with hyperactivity and short attention span
- The need for foster care placement

Drug Testing

Most laboratories use a 5 panel urine drug screen that checks for PCP, marijuana, cocaine, methamphetamines/amphetamines and opiates. This drug screen is most commonly used for regular workplace screening. Tests that detect a specific drug may be used for diagnosis and monitoring.

The standard U.S. National Institute of Drug Abuse (NIDA) urine test includes a one-step rapid assay for the detection of opiate and opiate metabolites. Heroin breaks down into codeine and morphine. Codeine breaks down into morphine. The opiate drug tests look for codeine, morphine, and 6-acetyl-morphine. The presence of 6-acetyl-morphine is relatively conclusive of recent heroin use,

but is only detectable for a few hours after use. The presence of codeine can be the result of either heroin or codeine use. The presence of morphine can be the result of the use of heroin, codeine, or morphine. Relative levels of codeine and morphine can help determine their origin. Fentanyl does not show up in the 5-panel test and a specific test must be requested. Opiates may be detected in the urine for up to 4 days after use: opium for 1-2 days, heroin for 1-4 days and morphine for 3-4 days.

A number of substances may cause "false positive" tests, including poppy seeds, cough medicines containing dextromethorphan, Nyquil**,** kidney infection, kidney disease, diabetes, liver disease and various antibiotics.

Users can adulterate the test to mask the results by adding "Urine Luck" to the sample. This product contains a chemical (pyridinium chlorochromate) that alters the molecular structure of opiates (and THC). However, this agent is easy to detect. Instant drug-testing urine dip cards are available that test for the 5 drugs in the NIDA standard test and also detects oxidants and other agents that can cause the urine drug test to be negative.

Saliva drug testing can generally detect drug use that occurred in the last few days. This makes saliva drug testing excellent for post-accident drug testing, pre-employment testing and random testing. Most saliva drug tests are limited to the NIDA-5 i.e. cocaine, marijuana, opiates, amphetamines and barbiturates but when warranted saliva drug testing can be set up to detect any drug use. Saliva drug testing cannot be beat with conventional mouthwashes.

Detection in urine:
Drugs have certain "detection windows" meaning the amount of time after ingestion that evidence of their use can be detected by a drug test. Alcohol is absorbed and eliminated more quickly than other drugs; therefore, many employers have post-accident testing procedures that require testing for alcohol to occur within two hours of the incident. Other drugs are eliminated from the body at different rates and thus detectable for different periods of time, often long after the drug's effect has worn off. The following are estimates of the length of time that certain drugs are detectable:

Alcohol – 2-12 hours
Amphetamines/Methamphetamine – 2-3 days
Adderall / Ritalin – 2-5 days
Bath salts – 4-7 days
Barbiturates – 2-10 days
Benzodiazepines – 1-6 weeks
Cocaine – 2-10 days
- Benzoylecogonine - 2-4 days
- Heavy use - up to 10 days

Codeine – 2-4 days
Ecstasy (MDMA) – 2-3 days
Heroin - 1-3 days
Morphine – 2-3 days
LSD – 8 hours
Marijuana
- 1 time only – 5-8 days
- 2-4 times month - 11-18 days
- 2-4 times week – 23-35 days
- 5-6 times week – 33-48 days
- Daily use – 49-90 days

Methadone – 2-3 days
Phencyclidine (PCP) – 1 week
Prescription Opiates – 3-5 days
Suboxone – 2-7 days
Synthetic Pot (K2 / Spice) – 4-7 days

**OxyContin and other prescription opiates will not show up in a regular urine tox! You need to request the urine be quantified or request a five panel opiate test.*

Ways to cheat/beat drug tests

When something is at stake, people will find a way to cheat the system and drug testing is no different. It is important to know what your drug-testing agency provides. Do they watch someone urinate? Do they allow people to bring their urine to a designated location? Do they test the temperature or the urine? What drugs are in the panel they are using? What type of testing are they doing: blood, urine, oral swab, hair sample, saliva test? What are the parameters of the different tests? (Know oral swabs can be blown up by washing your mouth out with hydrogen peroxide before they swab. Hair sampling is a 90-day window of exposure; it does not tell you if the person is currently under the influence). Do they test for human antigens? Knowing all the parameters of the drug-testing agency can lessen the possibility of someone cheating the test.

Here are some of the most common ways people try to cheat drug tests:

1. The whizzinator – a pouch with straps and a small hose that clamps off. People will put someone else's urine in the pouch, strap it to their thigh, and wear it for 2-3 hours before the test. This gets the urine in the pouch to the same body temperature of the person. Then if no one watches them fill the cup, they can loosen the clamp, make dribbling sounds, and then re-clamp it off.
2. Elmer's glue bottle – similar idea to the whizzinator above. The can leave the twist lid on, or take it off and attach small tubing to the top and clamp the tubing off. They put someone else's urine in and strap it to their leg for 2-3 hours before the test. They can then squeeze the urine out, or open the clamp and release the urine.
3. Males will put someone else's urine in small glass vials and roll it up under their scrotum. Sometimes they will tape it to get to body temperature; sometimes they do it right before they get to the collection site. If they are not watched or checked, the urine can easily be substituted for their urine.
4. Females will fill balloons with someone else's, and insert them up their vagina for a couple hours. This gets the urine to match their body temperature, and they can pop the balloon releasing the urine.
5. Females take small thin prescription drug vials, put a hole in the lid, and cover it with duct tape. They fill the vial with someone else's urine and insert it up their vagina. It gets to temperature, they pull off the tape, and the urine dribbles out.
6. Detox drinks – these drinks are sold at vitamin stores (GNC, Vitamin Shoppe, etc.), online, in smoke shops, and in marijuana dispensaries. Majority of the time they do not work, and some drug testing agencies can test for the flushing agents. The testing agencies will list the flushing agents and state the sample is "dilute" which is considered a positive test.
7. Powdered and synthetic urine – these products are sold in smoke shops, marijuana dispensaries, and online. Some synthetic urine products come with their own small heating pad to put the bottle in. It heats the liquid to body temperature. If the drug testing agency tests for human antigens this will easily pop up as non-human, and some agencies will list the urine is synthetic.
8. Cranberry and Niacin pills – this seems to be working. People take high doses of cranberry pills and niacin alternating every 3 hours. Both can legally be purchased anywhere vitamins are sold (pharmacies, vitamin stores, grocery stores, drug stores, and health food stores).

Drug Paraphernalia

Most people consider drug paraphernalia to be pipes, bongs and syringes, but it can be many things. It can be ordinary items used to disguise or hide the drug or things used to consume the drug. Aluminum foil, small ziplock baggies, pill bottles, spoons, film canisters, cigarette packs, hide-a-cans, makeup kits, gum wrappers, mint tins, liquid breath mint containers, or small glass vials are types of paraphernalia. Parents need to be aware that these kinds of things are either used to conceal the drug or a way of using the drug. Paraphernalia means drug user.

The following is paraphernalia associated with the use of specific drugs:

Ecstasy:

- pacifiers, lollipops, mouth guards for grinding of the teeth
- glow sticks, surgical masks and mentholated rubs to over stimulate the senses
- water bottles used to bring in alcohol or liquid drugs like GHB, LS

Cocaine:

- glass pipes for smoking crack
- small mirrors and razorblades, rolled dollar bills or cut straws for snorting

- spoons and lighters, syringes, turnicate, cotton pieces

Heroin:
- kits containing – spoons, bottle caps, lighters, syringes, turnicate, cotton pieces, small baggies
- balloons, baggies, burnt aluminum foil, burnt spoons, bottle caps
- scales, razor blades with powder residue, cut straws, needles
- toilet paper rolls filled with dryer sheets – absorb odor from smoking

Marijuana:
- rolling papers, small baggies, stash cans, film canisters, tins and roach clips
- deodorizers, incents, potpourri to disguise or mask the odor of marijuana
- pipes –metal, colored blown glass, ceramic large bongs
- brown dryer sheets – kids' stuff them in an empty TP roll and exhale smoke into it

Methamphetamine:
- small plastic baggies
- small cosmetics bags (to keep paraphernalia in)
- pocket knives
- Q-tips
- Cut straws
- Pocket torches
- Glass pipes
- Razor blades
- Mirrors

Inhalants:
- tubes of modeling glue or super glue
- empty spray cans, small CO2 cartridges
- plastic & paper bags, balloons, tops cut off of liter bottles
- bottle or cans with pens or tubing punctured in the sides

Things used to cover up the use of drugs:
- mouthwashes, breathe sprays, mints
- eye drops to conceal bloodshot eyes
- breathe mint droppers and eye drop containers to conceal LSD and GHB
- wearing sunglasses at inappropriate times

Resources:

Urban Dictionary is an app for smart phones, tablets and computers and is useful for defining drug related words and street terms. After entering a term or word, if the word is part of the drug-jargon, the meaning will pop up within the top 3 responses and give all details about the word or terminology. http://www.urbandictionary.com/

EcstasyData.org is an independent laboratory pill testing program run by Erowid Center, and co-sponsored by Dancesafe and Isomer Design. Launched in July 2001, its purpose is to collect, review, manage, and publish laboratory pill testing results from a variety of organizations. https://www.ecstasydata.org/

Parents Opposed to Pot: nationwide organization providing factual information about the effects marijuana has on users, families, and society. They have testimonial from parents whose children have been affected by Marijuana. Their website is http://www.poppot.org/ Facebook: https://www.facebook.com/poppotorg

Moms Strong: A national group of moms who share their stories of addiction and marijuana http://momsstrong.org/

National Institute on Drug Abuse, the Science of Drug Abuse and Addiction. This site contains research about substance abuse and addiction. http://www.drugabuse.gov/

Dr. Christian Thurstone is one of fewer than three dozen physicians in the United States who are board certified in general, child and adolescent and addictions psychiatry. He is medical director of one of Colorado's largest youth substance-abuse-treatment clinics and an associate professor of psychiatry at the University of Colorado Denver, where he conducts research on youth substance use and addiction. http://drthurstone.com/

Phoenix Multisport fosters a supportive, physically active community for individuals who are recovering from alcohol and substance abuse and those who choose to live a sober life. Through pursuits such as climbing, hiking, running, strength training, yoga, road/mountain biking, socials and other activities, we seek to help our members develop and maintain the emotional strength they need to stay sober. **Scott Strode, Director** http://www.phoenixmultisport.org/ Multiple Locations:

- Denver - 2233 Champa, Denver, CO, 80205 #720-440- 9175
- Colorado Springs - 218 W Colorado Ave, Suite 102 Colorado Springs, CO, 80903 #719-434-3387