

New Trends in Substance Abuse: Opiates and Heroin

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SCOPE OF THE PROBLEM

Substance abuse is a major public health problem. Abuse/dependence affects approximately 61% of youths age 12-17 years, 38% of young adults age 18-25 and 25% of adults age 26 and over. Nearly half of these young users go on to be adult-users and some become addicts. The transition from recreational use to dependence/addiction can occur at any age. The distinction between recreational drug use and drug dependence is not always clear, but the short-term consequences are the same for both types of users.

The use of illicit drugs among American youth is approaching epidemic proportions. The 2013 National Survey on Drug Use and Health (NSDUH) prepared by the Substance Abuse and Mental Health Services Administration (SAMHSA) reports that 24.6 million people 12 years or older use illicit drugs. In 2013, 681,000 people used Heroin, with 169,000 using Heroin for the first time, and 517,000 abused and/or were dependent on Heroin. The most disturbing trend, however, is the number of children in foster care who abuse alcohol or drugs. The February 2005 report of the NSDUH compared the rate of alcohol and drug abuse among a random sample of high school students not in foster care and high school students in foster care. The rate of alcohol abuse in both groups was similar (near 19%). However there were a much higher percentage of adolescents in foster care than in the general population who abused illicit drugs, 31.6% v. 21.7% respectively. These rates have been increasing since 2005.

Every year since the early 1980's the "Monitoring The Future Study" (MFS) has surveyed 8th, 10th and 12th graders to gain information about drug abuse. During the past 2 years the survey has included questions about the use of synthetic drugs. The use of synthetic marijuana is a problem of great concern because of its adverse effects. In 2012, 11.3% of high school seniors, 4.4% of 8th graders and 8.8% of 10th graders admitted to using this drug daily or near daily, similar to the use of marijuana (1 in 15 high school seniors).

WHY DO ADOLESCENTS AND YOUNG ADULTS BECOME DRUG ADDICTS

Behavioral Factors Predisposing to Addiction: The Adverse Childhood Events (ACE) Study

The Adverse Childhood Event (ACE) study was started in 1966 to investigate the interrelation of childhood abuse and household dysfunction to health problems, including drug and alcohol abuse and addiction. It is an ongoing collaborative study utilizing the resources of the Southern California Permanente Medical Group (Kaiser Permanente). It is the largest scientific research study of its kind and the results reveal that the compulsive use of alcohol and illicit drugs increases proportionally to the frequency of adverse childhood experiences. These adverse events are often concealed and unrecognized, are surprisingly common, and dramatically increase the risk of drug addiction. These events include:

- Recurrent physical abuse
- Recurrent emotional abuse
- Contact sexual abuse
- An alcohol and/or drug abuser in the household
- An incarcerated household member
- Someone in the family who is chronically depressed, mentally ill, institutionalized, or suicidal
- Mother is treated violently
- One or no parents
- Emotional or physical neglect

The ACE Study uses a simple scoring method to determine the extent of exposure to childhood trauma. Exposure to one ACE category, and not just an isolated ACE incident, qualifies as one point. The ACE Score is a sum of all points. An ACE Score of 0 (zero) would mean that the person reported no exposure to any of the categories of childhood trauma listed above. An ACE Score of 9 would mean that the person reported exposure to all of the categories of trauma listed above. A score of 4 or more is associated with a 500% increase in the risk of becoming an alcoholic and a 4000% increase in the risk of drug addiction. The findings imply that the basic causes of addiction lie within us and the way we treat each other; not in drug dealers or dangerous chemicals.

The physiologic (biologic) basis of drug addiction

Nearly every addictive drug targets the brain's reward system by flooding the circuit with the neurotransmitter, dopamine. Neurotransmitters are necessary to transfer impulses from one brain cell to another. The brain adapts to the overwhelming surges in dopamine by ultimately producing less dopamine and by reducing the number of dopamine receptors in the reward circuit. As a result, two important physiologic adaptations occur: (1) the addict's ability to enjoy the things that previously brought pleasure is impaired because of decreased dopamine, and (2) higher and higher doses of the abused drug are needed to achieve the same "high" that occurred when the drug was

first used. This compels the addict to increase drug consumption to increase dopamine production leading to physiologic addiction with more and more intense cravings for the drug.

Factors which increase the risk of addiction in foster children

Children and adolescents in foster care may have a significantly higher number of ACE's than children in the general population and therefore have an increased risk of addiction. In addition, there may also be physiologic mechanisms that make these children even more vulnerable to drug/alcohol addiction. Both natural rewards (such as good food, pleasurable family events) and addictive drugs stimulate the release of the neurotransmitter, dopamine, in the reward-centers of the brain. The effects of dopamine include euphoria and the desire to repeat the behavior. Foster children, who may have been deprived of many "natural rewards", who experience this dopamine-induced euphoria after experimenting with illicit drugs may repeat drug use to again experience this reward-euphoria. This sequence leads to compulsive drug seeking and behaviors that lead to addiction.

There is at least one more factor unique to youth in foster care that may result in increased risk of drug addiction. Of all the varieties of addictive illicit drugs, prescription medications are becoming the most common. There is a societal trend to treat behavioral problems, especially in children in foster care, with medications instead of trying to learn more about the unwanted behaviors. A 2010 report published by Medco Health Solutions revealed that 42 % of all kids in the foster system are prescribed drugs to alter or modify their moods and many have prescriptions for three or more medications. This practice sets the stage for substance abuse in this high-risk population.

A recent study by researchers at the University of Michigan (J. Adolescent Health, August 2013) found that 75% of 8th and 9th graders had unsupervised access to their narcotic-pain pills, stimulant medications, anti-anxiety medications and sedative medications. Researchers concluded that the lack of supervision facilitated non-medical use of these medications, putting these adolescents at risk of poisoning, overdose and dependence.

Drug Dependence, Addiction and the Risk Factors for Addiction

Physical drug dependence occurs after chronic exposure to a drug and is not the same as addiction. Someone who is physically dependent on a medication will experience withdrawal symptoms when use of the drug is abruptly reduced or stopped. These symptoms can be mild or severe and can usually be managed medically or avoided by slowly tapering the drug. Dependence is often accompanied by tolerance, or the need to take higher doses of a medication to get the same effect. Addiction is distinguished from dependence by the presence of compulsive drug seeking and use despite devastating consequences. Compulsive drug-seeking and drug-taking behavior results in poor decision-making and the inability to judge one's own responses.

The effects of addiction on the brain

Nearly all substances of abuse affect the activity of neurotransmitters that play an important role in connecting one brain cell to another. Interruption of this process may result in:

- Delayed maturation and development of the immature brain (brain development continues to about age 25 years)
- Cognitive impairment with learning problems and limited or decreasing IQ
- Behavioral disorders, including aggression, impulsive behavior, and a variety of mental health problems

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, Percodan, Percocet) 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.

In a recent national survey on teen drug abuse, one in 8 high school seniors admitted to using prescription painkillers they weren't prescribed. There is a strong link between prescription opiate abuse and heroin addiction. The street cost of prescription drugs is increasing while the cost of heroin is decreasing, encouraging addicts to switch to heroin. Accidental overdose with these drugs is now the leading cause of accidental death in the US, one person dies every 19 minutes. Opiate overdose may cause confusion and physical discomfort. In severe cases breathing can slow down and stop, resulting in a fatal overdose. The Center for Disease Control estimates that more than 100 people die every day from unintentional prescription drug overdoses.

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.

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)

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

Tremors
Cramps
Muscle and bone pain
Chills
Perspiration (sweating)
Priapism
Tachycardia (rapid heartbeat)
Itch

Behavioral Symptoms

Dysphoria
Malaise
Cravings
Anxiety/Panic attacks
Paranoia
Insomnia
Depression
Flu-like symptoms

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 sniffing
- Needle marks on arms and/or legs, between toes, in groin area
- Soars 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

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 drug users due to 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.

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.

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.

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

- Benzoyllecogonine - 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

Behaviors

People's behaviors and personalities change when things are happening in their lives, if someone is going thru a divorce or breakup, a child is ill, a family member passes away, they lose their job, etc. Supervisors and employers need to be able to determine if it a personal issue, a bad day, or possible substance abuse. The same goes for your children. Is your kid just having a bad day at school, or fighting with a friend, or is something else going on? When you notice behavioral changes in your child, you want to be able to identify if it is adolescent stress or typical growing pains or is it something else like drug use. When you are trying to figure out what your child has been up to it is important to use and trust your senses.

What do you see? Look at the person. Are their eyes red and having problems focusing? They may have been drinking. Are their pupils dilated or constricted? Are they agitated? Are they breathing normal? Is there a strange burn on their mouth or fingers? That could signify smoking something through a metal or glass pipe, or they are huffing Dust Off. Have they developed nosebleeds? This can be indicative of cocaine use. Are they wearing long sleeves even in the middle of summer? This is a way to hide track marks from intravenous drug use.

What do you smell? Marijuana, cigarettes, Inhalants (chemical odor), alcohol, and vomit all have tell tale odors. Whether you notice the odor on the breath or clothes, it is a reason to be alarmed; for teens, simply being around others who drink or smoke makes it more likely your child will try it. Do not be afraid to follow your nose. Excessive "pleasant" smells, like breathe mints, heavy perfumes, laundered clothing (for a child who never does their own wash) can be telltale signs of them trying to cover up or mask odors. If you have teenagers, make sure you look in, and smell, their car – the smell of stale beer and marijuana can linger in the upholstery.

What do you hear? Listen to the clues the person is giving you by the things being said, the things they laugh at or the fact they may not be saying anything at all. Silence can speak volumes about something going on in the person's life. By listening, over time you will be able to identify which behaviors are the results of bad days, mood swings or something more serious. Are they slurring their word? Are they speaking low and raspy or high pitched and fast? Are they able to follow the conversation? Are they taking a long time to answer? By using all your senses along with your gut instinct, you will be able to determine certain behavior as typical or indicative of drug use.

Other signs that may indicate drug use:

- Stories do not add up and social circles change
- Schoolwork goes downhill
- Increased lying and stealing

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/>

National Registry of Evidence-Based Programs and Practices - a searchable online registry of more than 160 interventions supporting mental health promotion, substance abuse prevention, and mental health and substance abuse treatment <http://nrepp.samhsa.gov/>

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/>

Substance Abuse and Mental Health Services Administration, Helpful site for both Substance Abuse and Mental Health www.samhsa.gov

WebMD is a site full of information around prescription drugs, drug interactions, and mental health <http://www.webmd.com/mental-health/abuse-of-prescription-drugs>