



Teen Drug Testing: What You Need to Know

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If you are the parent of a teenager you know that raising children now is not an easy task. This isn't to say that it was ever truly easy, but the availability of inappropriate information and substances makes it more complicated to be a parent. Stories about famous and not-so-famous teens getting involved in drugs and alcohol use and abuse are widespread. The ability of parents to limit exposure to information about intoxicants is restricted unless they are willing to eliminate internet access, TVs, cell phones or print media in the home. The rampant use of drugs and alcohol is alarming and continues to grow. What are parents supposed to do? The issues include not only well-known, illegal street drugs and newly created synthetic drugs, like K2, Spice and Bath Salts that mimic the effects of marijuana and methamphetamine, but the abuse of prescription drugs and alcohol found in the home.

The Effects of Drugs on a Developing Brain

In the past because teenagers began to have adult looking bodies people assumed that their brains had reached their full development. Research conducted by [Science and Management of Addictions \(SAMA\)](#)¹ has discovered through neuroscience



and MRI technology that the adolescent brain is still developing and development is not complete until the age of approximately 25. Teenagers are inclined to more risky and impulsive behavior due to the immaturity of the prefrontal cortex of the brain which is responsible for reasoning and control and the cerebral mantle (gray matter forming the outer surface of the brain), responsible for processing abstract information and understanding rules, laws and codes of social conduct. The front sections of the brain are still not completely mature allowing for impulsivity and recklessness. Teenage brains are prone to errors of judgment and are very sensitive to the effects of psychoactive substances. This age group, more than any other, is at a higher risk of substance addiction and permanent intellectual and emotional damage from drugs.

Psychoactive substances can alter the function of the developing brain in many ways leading to long term behavioral and addiction issue. They can target and change the function of neurotransmitters which are partially responsible for the high addiction potential of methamphetamines and cocaine. In particular the neurotransmitter dopamine, involved in feelings of reward and motivation, is dumped into the brain and can override, over time, the brain's ability to sense rewards accurately in day to day life,

causing damage to intellectual development as well as a person's ability to get satisfaction from everyday life.

Drugs can alter perception and damage developing perception skills which are critical to being able to determine the feelings and thoughts of others. Marijuana, in particular, over the long term can alter these perceptions causing misperceptions leading to failure in school, work and relationships and ultimately leading to a retreat into drugs. Finally, many life habits are developed during adolescence and setting up a habit of drug use can become more easily ingrained at this time of life. These habits can become hardwired into the brain during childhood and adolescence and continue throughout adulthood. After the age of 25 it is much more difficult to establish new habits and change old ones.

Why Do Teens Try Drugs?

According to the 2010 National Household Survey on Drug Abuse (NHSDA), developed by the Substance Abuse and Mental Health Services Administration (SAMHSA)² the number of teenagers ages 13 to 18 that have tried illicit drugs for the first time has dropped slightly but is still too high at 11.3% of students who have tried marijuana by the time they are 13. Overall the number of teens currently using drugs has gone up to 10.1 from 9.3 in 2008 showing that this is still a significant issue for our youth. Boys tend to use marijuana more than girls, while girls are more inclined toward the use of psychotherapeutics more than boys. In addition, the teens are trying and abusing dangerous club drugs like Ecstasy, Rohypnol and GHB (Gamma-hydroxybutyrate).

To adults who have already navigated adolescence and know the dangers of illicit drugs or the misuse of prescriptions it can be difficult to understand the appeal. The reasons that children try drugs are numerous and often times specific to being a teenager. The Treatment Research Institute and the Partnership for Drugfree.org has developed a guide for good parenting practices that highlights four common risk factors associated with teen drug and alcohol abuse.³ Having any or several of these risk factors does not mean that a child is doomed to drug or alcohol addiction, but they can provide clues and warning signs to parents allowing them to be prepared to head trouble behavior off at the pass. The four risk factors are:

1. **Family History:** Alcohol or drug abuse has been found to be hereditary, running in families. If a parent or grandparent has an addiction, genes linked to addictive behavior can be passed on to the child putting them at greater risk.

2. **Mental or Behavioral Disorder:** Children with ADHD, depression, anxiety and/or learning disorders may have difficulty fitting in and use alcohol or drugs to reduce stress from their pre-existing disorders. Addressing proper treatment for mental or behavioral disorders allows children to see that they can handle symptoms and problem situations on their own or with medication prescribed specifically for them and they don't need to turn to illicit drugs.

3. **Trauma:** If a child experienced or witnessed a severe trauma such as a serious car accident or has experienced sexual abuse or molestation they may use alcohol or drugs to bury the feelings aroused by the trauma. Addressing the possible emotional impact and providing counseling to address lingering emotions from traumatic

experiences can help children to channel them into healthy activities such as sports, dance and art and to talk through painful feelings.

4. **Impulse Control Problems:** Some children and teens take more risks than others. They may be more willing to engage in risky behavior like trying drugs and alcohol.

Knowing why some teens are drawn to drugs, either illegal or prescription can provide the insight parents need to help prevent them from ever starting. Testing for current or past drug use has provided law enforcement and parents with much needed information about adolescent behavior and has been used by legal authorities and parents alike to monitor and prevent drug use.

Standard Drug Tests

Standard drug tests can determine whether an adolescent is currently using illicit drugs. An 11-Panel drug screen provides results in only ten minutes and determines whether drugs are in the urine including amphetamines, barbiturates (sedatives), benzodiazepines (sedatives), cocaine, marijuana, ecstasy, opiates (pain relievers), oxycodone, phencyclidine (PCP), propoxyphene (Darvon), and tricyclic antidepressants. Precautions are taken to ensure a fresh sample, testing accuracy and that the specimen has not been substituted. Dilution of the sample can provide false negative results but urine screening has more value than a serum (blood) test because most substances remain in the urine after the intoxication has passed.

Another drug screening option that shows past drug use for up to 90 days is a Hair 5-Panel drug screen that uses only a few strands of hair and tests for amphetamines

(including Ecstasy), cocaine, marijuana, opiates and PCP. This simple, non-invasive test is very difficult to cheat on, is more accurate and offers a historical view of drug use. The ability to track not only current drug use but past use is a powerful method of monitoring a teenager's compliance to parent's no drug rules or to monitor a promise not to use drugs.

Prescription Drug Abuse

One in five teenagers reports taking a prescription drug without having a prescription for it themselves. All geographic, socioeconomic and racial and ethnic groups have similar rates. The many reasons that teenagers give for using prescription medications include to party and get high, to regulate their lives, for example with Ritalin or Adderall, to lose weight with amphetamines, to deal with stress with OxyContin and tranquilizers such as Xanax or to bulk up with prescription steroids.

According to the Partnership for a Drug-Free America, every day 2,500 teenagers use a prescription drug to get high for the first time⁴. They access these drugs at home from their parents' or friend's medicine cabinets or drawers and it's easy to do. Because a doctor prescribed them teens think these drugs are safe. The ease of access along with the belief that they are safe make this a simple step for a teenager who is interested in getting high or has heard about it from friends.

What motivates teens to engage in prescription drug abuse? Ultimately, their desire for getting high outweighs their perception of the risks.

- 12 to 17 year olds abuse prescription drugs more than they abuse ecstasy, crack/cocaine, heroin, and methamphetamine combined.

- 60% of teens who have abused prescription painkillers did so before age 15.
- There are as many new abusers age 12 to 17 of prescription drugs as there are of marijuana.

Although some children have been prescribed OxyContin for moderate to severe pain while suffering painful conditions including childhood rheumatoid arthritis, Sickle Cell Anemia, burn recovery, and post-operative pain, according to Purdue Pharma, OxyContin is not approved for use in children. The impact on children's endocrinology is unknown and could lead to developmental complications. Although the benefit to children who are in pain is clear, any prescriptions for children are off-label and doctors must guess at an appropriate dosage. Purdue Pharma, the manufacturer of OxyContin, is currently conducting a [study](#)⁵ on the viability of OxyContin use in children. Although they are not seeking FDA approval for use in children, they explain that they do not want to deny what could be a valuable treatment for children. Another worry when prescribing an addictive drug, such as OxyContin, is the way that addictive substances cause a still-forming brain to react.

The lack of information on how prescription pain relievers affects children, as well as adults, is even more frightening when combined with the nonmedical use of prescription pain relievers. Data from SAMHSA's 2002 to 2007 National Surveys on Drug Use and Health⁶ were combined to look at trends in nonmedical use of prescription pain relievers among the general population aged 12 and older. Nonmedical use is defined as use without a prescription belonging to the respondent or use that occurred simply for the experience or feeling the drug caused. The prescription

pain relievers included in research were hydrocodone, oxycodone (the active ingredient in OxyContin), and morphine.

- Usage has remained constant: The rate of past month nonmedical use of pain relievers did not differ significantly between 2002 and 2007 among the overall general population aged 12 and older but did differ by age group during this period.
- In 2007, 2.1% persons aged 12 and older (5.2 million) reported using prescription pain relievers nonmedically in the past month and the percentage of youth was 2.7% or 670,000 teenagers aged 12-17.

Another prescription drug that is frequently misused by teenagers is Adderall®. Adderall® is the brand name for an amphetamine formulation that is prescribed for the treatment of Attention Deficit Hyperactivity Disorder (ADHD) and for narcolepsy. Under the Controlled Substance Act, Adderall® is classified as a Schedule II drug because of its high potential for abuse and dependence. Information on the nonmedical use of Adderall® was collected as part of SAMHSA's National [Survey](#) on Drug Use and Health.⁷

- “Among persons aged 18 to 22, full-time college students were twice as likely to use Adderall® nonmedically in the past year as those who had not been in college at all or were only part-time students.
- “Nearly 90% of the full-time college students who had used Adderall® non-medically in the past year also were past month binge alcohol drinkers and more

than half were heavy alcohol users. Students under the legal drinking age who used Adderall® were also more likely to be binge drinkers or heavy drinkers than their underage counterparts who had not used Adderall® non-medically.

- Full-time college students who had used Adderall® non-medically in the past year were more likely to be polydrug users in the past year than their non-Adderall® using counterparts, that is, both drink alcohol and use other drugs.
- In the past year, full-time college students who had used Adderall® nonmedically in the past year were more likely to have used illicit drugs than their non Adderall® using counterparts: almost 3 times more likely to use marijuana (79.9% vs 27.2%), 8 times more likely to use cocaine (28.9% vs. 3.6%), 8 times more likely to use tranquilizers nonmedically (24.5% vs. 3%) and 5 times more likely to use pain relievers nonmedically (44.9% vs. 8.7%).”⁸

Unfortunately, the continued abuse of prescription medications is not limited to teenagers, but is a problem among all age groups. The same 11-Panel urine drug screen and the Hair 5-Panel drug screen will effectively identify the use of prescription medications such as pain relievers, anti-depressants and amphetamines, as well as street drugs.

You may be interested in learning more about prescription drug abuse through the [Medicine Abuse Project](#).

Synthetic Drugs

The availability of new synthetic, as opposed to organic, drugs has added an additional layer of danger to the myriad adult situations that teens are forced to navigate. One of these was originally developed in a laboratory by a researcher for testing the effects of marijuana on animals. Once the formula for this fake marijuana got out it was quickly picked up by drug users looking for drugs that would mimic the effects of THC, the psychoactive ingredient in marijuana, but not be detectable by standard drug tests and still be legal. The chemical is usually sprayed on herbs or other plant material and is sold in “head” shops, gas stations and smoke shops as herbal incense, Spice or K2, among other names, and first hit the streets in the early 2000s. It is important to know that although the effects mimic THC, it is not THC and its effects can be very different and may be more similar to the effects of PCP. Users report that the high is more intense and serious side effects have been reported increased agitation, sweating, vomiting and lack of physical control, such as seizures or spastic, uncontrolled movements. In late 2010 the drug was studied further and is now illegal in most states.



Another new synthetic drug is “substituted cathinone” or “bath salts”. These man-made chemicals produce stimulant effects similar to amphetamines, cocaine or Ecstasy and can be extremely dangerous. A white powder that is ingested orally or snorted through the nose, bath salts were sold as vitamins or energy boosters in convenience stores or gas stations. The specific mixture in this chemical vary

depending on the package and serious side effects such as severe paranoia, agitation and combative behavior, hallucinations or psychosis, chest pain and death have been reported at poison control centers. As with spice, bath salts were not illegal when they were first sold and used. In December of 2010 reports began to come in to poison control centers about people having severe reactions. The drug is already banned in the United States and the President Obama has recently signed a bill to make methylenedioxypropylamphetamine (MDPV) and mephedrone, the active ingredients in bath salts, categorized as Schedule I substances, effectively making them illegal.

One of the reasons that both of these synthetic drugs were developed was to elude the law and sell and use drugs without getting arrested. Because they weren't illegal many people, including teenagers, thought they were safe. As new chemicals standard drug tests weren't able to detect the drugs, allowing users who were caught behaving strangely or arriving in emergency rooms to walk away without any consequences other than the physical or mental repercussions. In the past two years researchers have worked diligently to develop drug tests which are now available to detect both drugs. A Synthetic Cannabinoid Detection test can identify Spice or K2 in the urine very quickly. Several tests are now available for Bath Salts as well.

What Can Adults Do to Prevent Teenage Drug Use?

With all of the evidence that teenagers are trying new drugs every day, that drugs are more available and that the risks that teens will be motivated to try drugs it can seem disheartening to parents and law enforcement officials who are trying to prevent teenage drug use. There are ways to reduce the chances that a teen will drink, use drugs, or engage in other risky behaviors³ but it takes effort and isn't a guarantee that a

teenager will get through unscathed. The hope is that the following steps will provide guidance to parents who want help.

1. Build a warm and supportive relationship with your child.
2. Be a good role model when it comes to drinking, taking medicine and handling stress.
3. Know your child's risk level.
4. Know your child's friends.
5. Monitor, supervise and set boundaries.
6. Have ongoing conversations and provide information about drugs and alcohol.

Additionally, follow the three steps for handling prescription drugs: Monitor, Secure and Dispose¹⁰ as described in the [Not in My House](#) program developed by The Partnership for A Drugfree America:

Monitor: Do you know how many pills you have and would you notice if some were missing?

Secure: Lock up your medications just as you would jewelry or cash. 64% of teens who have abused pain relievers say they got them from friends or relatives.

Dispose: Safely disposing of left over medications can prevent teenagers from getting to them. This is a critical step in protecting your teen.

Trust, But Verify

As a parent, it would be great if you could trust everything your child says. But the majority of parents don't trust that their child got all A's but asks to see the report

card or check their teeth to be sure that they were really brushed. If you give your teenager a curfew, it makes sense to monitor whether they are really getting home on time. These may seem to be basic parenting skills and are critical to ensuring that rules are followed and that the limits that are set are respected.

The same holds true for expecting that your child will not try or use drugs. Teenagers who know that their parents expect them to stay drug free are more likely to avoid drugs. Testing your child for drugs may seem over the top, but it falls under the category of ensuring that they respect curfew rules, keep their grades up and do chores around the house. If you don't check, you don't know it's been done. In addition, knowing that they will be tested gives your teenager another excuse to say no: "My parents will know if I use it even just once."

A study which appeared in the November issue of the journal, [*Pediatrics*](#), found that teens substantially underreported their cocaine use, even when they knew they were going to be drug tested. If a parent or pediatrician suspects drug use but they don't seem to be getting a straight answer from the teen, a drug test will provide a reliable response so that adults can take action immediately.

It is a parent's responsibility to provide the best possible route to adulthood that they can for their child, including a safe home, firm limits and a healthy adolescence. Knowledge of what to watch for and how to protect your child are tools to help your teen get safely to adulthood.

ANY LAB TEST NOW[®] is available to answer any questions you have regarding drug testing, its benefits and the legal issues involved. Our experienced Medical Assistants

are thoroughly trained in these tests and the concerns of parents and teens. Whether you only want to know for your peace of mind or you anticipate the need for legal documentation, we are here when you are ready.

If you need guidance on how to talk to your teen, please contact The Partnership at Drugfree.org's Parent Helpline at 855-DRUGFREE.

Footnotes

¹<http://samafoundation.org/youth-substance-addiction/effects-of-drugs-on-adolescent-brain/>

²Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings, US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality, September 2011,
<http://www.samhsa.gov/data/NSDUH/2k10Results/Web/HTML/2k10Results.htm#2.2>

³Treatment Research Institute and The Partnership at Drugfree.org, copyright 2012,
http://www.drugfree.org/wp-content/uploads/2011/07/partnership_components_tool_revised_031612.pdf

⁴Preventing Teen Prescription Drug Abuse (<http://www.drugfree.org/wp-content/uploads/2010/10/Preventing-Teen-Abuse-of-Prescription-Drugs-Fact-Sheet-2draft-Cephalon-sponsored.pdf>)

⁵<http://www.nytimes.com/2012/07/07/health/oxycodone-effect-on-children-in-testing-by-purdue-pharma.html>

⁶<http://www.oas.samhsa.gov/2k9/painRelievers/nonmedicalTrends.cfm>

⁷<http://www.oas.samhsa.gov/2k9/adderall/adderall.cfm>

⁸<http://www.oas.samhsa.gov/NSDUH/2k10NSDUH/2k10Results.htm#Fig2-3>

⁹<http://www.drugfree.org/wp-content/uploads/2012/02/Parents360-Synthetics-Bath-Salts-K2-Spice-Parents-Guide-FINAL-2-13-12.pdf>

¹⁰<http://notinmyhouse.drugfree.org/>

¹¹Just Say “I Don’t”: Lack of Concordance Between Teen Report and Biological Measures of Drug Use, Virginia Delaney-Black, Lisa M. Chiodo, John H. Hannigan, Mark K. Greenwald, James Janisse, Grace Patterson, Marilyn A. Huestis, Joel Ager, and Robert J. Sokol. *Pediatrics* Vol. 126 No. 5 November 1, 2010, pp. 887 -893, (doi: 10.1542/peds.2009-3059).