

DO

- Model responsible use, the most important thing for a parent to do. Our actions related to alcohol, tobacco, or any other drug speak much louder than words.
- Set clear expectations with your sons and daughters about drinking, smoking and using other drugs. Describe the damage that chemical use does to their developing brains and explain that because of the potential harm you do not want them to drink until they are adults and that you hope that they never smoke or use drugs.
- Set and enforce curfews.
- Get to know your adolescent's friends.
- Get to know your adolescent's friend's parents.
- Have regular conversations about alcohol, tobacco, and drugs. Take advantage of opportunities that arise from news reports or media portrayals to talk about alcohol and drug effects. Ask your kids what they know and think. Listen to their answers carefully so that you understand their attitudes and the peer pressure they may be under. Make sure you let them know that you welcome their questions or concerns.
- Seek professional guidance if you are worried about your teen's chemical use.

DON'T

- Don't send mixed messages about adolescent drinking, smoking, or drug use. Tolerating some use, making jokes or bragging about your own use confuses kids and erodes your credibility.
- Don't ignore signs that your son or daughter is drinking, smoking or using drugs.
- Don't accept excuses for repeated drinking, smoking or drug use.

From David Walsh, *Why Do They Act That Way?: A Survival Guide to the Adolescent Brain for You and Your Teen*

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Warning Signs of Chronic Adolescent Substance Abuse

Physical Findings

- Weight loss
- Red eyes
- Nasal irritation
- "Colds" or "allergies"
- Chronic cough
- Hypertension
- Sores on face /legs
- Injuries
- Needle tracks
- Seeking mind-altering medications
- Hoarseness
- Hemoptysis
- Hepatomegaly

Personal Habits

- Using eye drops
- Altered sleep pattern or appetite
- Less attention to hygiene
- Loss of interest in sports
- Change in dress
- New music interests
- New friends

Academic Performance

- Falling grades
- Impaired short-term memory
- Concentration problems
- Loss of interest
- Discipline problems
- Cutting/truancy
- Suspensions/expulsions
- Dropped Out

Family

- Increased conflict
- Curfew problems
- Isolation from family
- Increased secretiveness
- Drugs/paraphernalia in room (often explained as "holding" for a friend)

Behavioral Psychological

- Mood swings
- Depression
- Panic reactions
- Acute psychosis
- Paranoia
- Temper outbursts
- Stealing
- Promiscuity
- Legal Problems: Possession, Public Intoxication, Theft, Traffic violations, etc.

RULES AND CONSEQUENCES: POTENTIAL STUMBLING BLOCKS

RULES & CONSEQUENCES NOT CLEARLY DEFINED & MEASURABLE	RULES ARE OPTIONAL, NOT MANDATORY	TOO MANY RULES AT ONE TIME	CONSEQUENCES NOT EFFECTIVE	NO CONSISTENCY	RULES NOT WRITTEN IN CONTRACT FORM
<p>Teenagers are extremely literal and will continue to get into arguments about the interpretation of rules or consequences. Therefore, rules and consequences must be clearly operationalized before a rule has been broken</p>	<p>A mandatory rule is one that the teenager must obey. However, if the rule is not clearly stated, it becomes optional and ineffective.</p>	<p>Rather than focusing their time and energy on the most important issues, parents often want to correct every negative thing the teenager does at one time.</p>	<p>Consequences are often not severe enough. Therefore, the teenager has no reason to give up the extreme behavior.</p>	<p>Parents do not follow through on a consistent basis, or they change the rules or consequences as they go along.</p>	<p>Rules and consequences are not written down in a contract format. As a result, both parents and teen get confused as to what was said and how the rule was to be enforced.</p>

POSITIVE AND NEGATIVE CONSEQUENCES EXAMPLE:

Whenever possible, consequences should be both positive and negative.

EXAMPLE:

John's curfew time will be 5 pm on school nights (Sunday through Thursday) and 9 pm on weekends (Friday and Saturday). If John returns home even ____ minute(s) past the curfew hour, he will be considered late. These times will not be changed or altered until we as parents decide otherwise. Therefor, John's trying to change them on his own breaks this rule.

CONSEQUENCE A (Negative)	CONSEQUENCE B (Positive)
For every night John is late, he will be grounded for the next day plus the next weekend night. IF he is late again that same week, the same thing happens. If he runs out of weekend nights, then the grounding will be carried over to the next weekend.	If John comes home on time, he will receive 1 hour added to his curfew time the next night. If the next night is a school night, the curfew will be 6 pm and if it is a weekend night, it will be 10 pm

Marijuana's effects on the brain*

The major active chemical in marijuana is delta-9-tetrahydrocannabinol (THC). THC owes many of its effects to its similarity to a family of chemicals called the endogenous cannabinoids, which are natural *Cannabis* like chemicals. Because a THC molecule is shaped like these endogenous cannabinoids, it interacts with the same receptors on nerve cells, the cannabinoid receptors. THC overstimulates the cannabinoid receptors, leading to a disruption of the endogenous cannabinoids' normal control. This overstimulation produces the intoxication experienced by marijuana smokers. Overtime, it may degrade some cannabinoid receptors, possibly producing permanent adverse effects and contributing to addiction and risk for a withdrawal syndrome.

Brain areas stimulated by THC*

Brain Region	Functions Associated With Region	Brain Region	Functions Associated With Region
Brain Region in which cannabinoid receptors are abundant		Brain Region in which cannabinoid receptors are moderately concentrated	
Cerebellum	Body movement coordination	Hypothalamus	Body housekeeping functions (body temperature regulation, salt and water balance, reproductive function)
Hippocampus	Learning and memory	Amygdala	Emotional response, fear
Cerebral cortex, especially cingulate, frontal, and parietal regions	Higher cognitive functions	Spinal cord	Peripheral sensation, including pain
Nucleus accumbens	Reward	Brain stem	Sleep and arousal, temperature regulation, motor control
Basal ganglia Substantia nigra pars reticulata Entopeduncular nucleus Globus pallidus Putamen	Movement control	Central gray	Analgesia
		Nucleus of the solitary tract	Visceral sensation, nausea and vomiting

Health consequences of marijuana abuse*

Acute (present during intoxication)

- Impairs short-term memory
- Impairs attention, judgment, and other cognitive functions
- Impairs coordination and balance
- Increases heart rate

Persistent (lasting longer than intoxication, but may not be permanent)

- Impairs memory and learning skills

Long-term (cumulative, potentially permanent effects of chronic abuse)

- Can lead to addiction
- Increases risk of chronic cough, bronchitis, and emphysema
- Increases risk of cancer of the head, neck, and lungs

*Condensed from the NIDA Research Report: Marijuana Abuse, <http://www.nida.nih.gov/ResearchReports/Marijuana>
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MARIJUANA WITHDRAWAL SYMPTOMS**

Peak Symptoms 2 – 6 days into withdrawal. Duration for most symptoms is 5 – 21 days.

- ◆ Anger/Irritability/Aggression
- ◆ Sleep Disturbances
- ◆ Increased dream sleep including “strange dreams”
- ◆ Concentration Problems
- ◆ Craving
- ◆ Restlessness
- ◆ Nervousness/anxiety
- ◆ Decreased appetite or weight loss
- ◆ Aches, Pains and Chills
- ◆ Sweating

Withdrawal from heavy marijuana use (25 days/month) is about as harsh as withdrawal from nicotine addiction (10 cigarettes daily) A within-subject comparison of withdrawal symptoms during abstinence from cannabis, tobacco, and both substances **Drug and Alcohol Dependence Volume 92, Issues 1-3, 1 January 2008, 48-54

Some Facts About Club Drugs

Methylenedioxyamphetamine (MDMA)

Slang or Street Names: *Ecstasy, XTC, X, Adam, Clarity, Lover's Speed*

Chemically, MDMA is similar to the stimulant amphetamine and the hallucinogen mescaline. MDMA can produce both stimulant and mild sensory-altering effects.

- Methylenedioxyamphetamine (MDA), methylenedioxyethylamphetamine (MDEA), and paramethoxyamphetamine (PMA) are chemically similar to MDMA, are sometimes found in ecstasy tablets, and can produce deleterious health effects.
- MDMA is usually taken orally, via a tablet or capsule. Its effects last approximately 3 to 6 hours, though depression, sleep problems, and anxiety have been reported for days to weeks afterwards.
- MDMA can produce a significant increase in heart rate and blood pressure and a sense of alertness similar to that associated with amphetamine use.
- MDMA can cause a marked increase in body temperature (hyperthermia), which may further be exacerbated by hot and crowded conditions characteristic of the rave environment. Hyperthermia can lead to liver, kidney, and cardiovascular system failure. MDMA can interfere with its own metabolism (breakdown), so repeated use over a short interval of time can lead to especially harmful levels in the body.
- MDMA users can become dehydrated, prompting increased water consumption. In some cases, this has led to the problem of "water intoxication" or hyponatremia, a potentially fatal condition in which excessive water consumption causes a dramatic decrease in electrolytes. MDMA can affect the hormone that regulates the amount of sodium in the blood, which can also cause hyponatremia.
- In animal studies, repeated administration of MDMA was found to produce long-lasting, perhaps permanent, damage to the neurons that release serotonin. In humans, chronic use of MDMA has been associated with memory impairment, which may indicate damage to the parts of the brain involved in memory processing.
- Recent animal studies have shown that binge use of MDMA is toxic to the heart. Health effects observed included arrhythmia, heart muscle damage, and reductions in heart rate and blood pressure. (Initially, MDMA increases heart rate and blood pressure, but following repeated use, this effect is reversed.)
- Newborn rats exposed to MDMA develop impairments of spatial learning and memory that are seen when the rats become young adults. The newborn stage of rodent brain development is analogous to late third trimester in humans.
- NIDA's 2003 Monitoring the Future (MTF) study reported that 2.1 percent of 8th-graders, 3.0 percent of 10th-graders, and 4.5 percent of 12th-graders had used MDMA in the 12 months prior to the survey. This is a decrease from 2001 peak rates of 3.5, 6.2, and 9.2 percent, respectively.

*MDMA abuse has been reported across the country, including most of the 21 areas that are monitored by NIDA's Community Epidemiology Work Group (CEWG), a network of researchers that provide ongoing community-level surveillance of drug abuse. CEWG cities in which MDMA use has been reported include: Chicago, Denver, Miami, Atlanta, New Orleans, San Francisco, Austin, Seattle, Boston, Detroit, New York, St. Louis, Dallas, Baltimore, Los Angeles, Minneapolis/St. Paul, Newark, Philadelphia, and Washington, DC.

Gamma-hydroxybutyrate (GHB)

Slang or Street Names: *Grievous Bodily Harm, G, Liquid Ecstasy, Georgia Home Boy*

GHB can be produced in clear liquid, white powder, tablet, and capsule forms, and it is often used in combination with alcohol, making it even more hazardous. GHB has been increasingly involved in poisonings, overdoses, drug-facilitated sexual assaults (such as "date rapes"), and fatalities. The drug is used predominantly by adolescents and young adults - often when they attend nightclubs and raves - and is prominent in many gay male communities.

- GHB is usually abused either for its intoxicating/sedating/euphoria-inducing properties or for its growth hormone-releasing effects.
- Chemicals that can be converted by the body into GHB include gamma-butyrolactone (GBL) and 1,4-butanediol (BD), which are found in a number of products that are labeled as cleaning agents and are often sold over the Internet and in retail stores.

- GHB is a central nervous system depressant and its intoxicating effects begin 10 to 20 minutes after the drug is taken. The effects typically last up to 4 hours, depending on the dosage. At higher doses, GHB's sedative effects may result in sleep, coma, or death.
- GHB is cleared from the body relatively quickly (in approximately 2 hours). There are no GHB detection tests for use in emergency rooms and many clinicians are unfamiliar with it, so many GHB incidents go undetected.
- In July 2002, the Food and Drug Administration approved the medically supervised use of GHB for the treatment of cataplexy (episodes in which muscles suddenly go limp) associated with narcolepsy.

*CEWG cities in which GHB abuse has been reported include: Detroit, Phoenix, Honolulu, Miami, New York, Atlanta, Minneapolis/St. Paul, Dallas, Seattle, San Francisco, San Diego, New Orleans, Newark, Los Angeles, Baltimore, Boston, and Denver.

Ketamine

Slang or Street Names: *Special K, K, Vitamin K, Cat Valium*

Ketamine is an anesthetic that can be injected, snorted, or smoked. It has been approved for both human and animal use in medical settings since 1970. About 90 percent of the ketamine sold legally today is intended for veterinary use.

- Large doses cause reactions similar to those associated with use of phencyclidine (PCP), such as dream-like states and altered perceptions or hallucinations.
- Ketamine is produced in liquid form or as a white powder that is often snorted or smoked with marijuana or tobacco products. In some cities (Boston, New Orleans, and Minneapolis/St. Paul, for example), ketamine has been reported to be injected intramuscularly.
- Low-dose intoxication from ketamine results in impaired attention, learning ability, and memory.
- At higher doses, ketamine can cause delirium, amnesia, impaired motor function, high blood pressure, depression, and potentially fatal respiratory problems.

*CEWG cities in which ketamine abuse has been reported include: Seattle, Miami, New York, Chicago, Minneapolis/St. Paul, Newark, Boston, Detroit, New Orleans, and San Diego.

Rohypnol

Slang or Street Names: *Roofies, Rophies, Roche, Forget-me Pill*

Rohypnol (flunitrazepam) belongs to the class of drugs known as benzodiazepines (which include Valium, Halcion, Xanax, and Versed). It is not approved for prescription use in the United States, although it is used in many countries as a treatment for insomnia, as a sedative, and as a presurgery anesthetic.

- Rohypnol is tasteless and odorless, and it dissolves easily in carbonated beverages. The sedative and toxic effects of Rohypnol are aggravated by concurrent use of alcohol. Even without alcohol, a dose of Rohypnol as small as 1 mg can impair a user for 8 to 12 hours.
- Rohypnol is usually taken orally, although there are reports that it can be ground up and snorted.
- The drug can cause profound "anterograde amnesia;" that is, individuals may not remember events they experienced while under the effects of the drug. Reportedly, it has been used in sexual assaults.
- Other adverse effects associated with Rohypnol include decreased blood pressure, drowsiness, visual disturbances, dizziness, confusion, gastrointestinal disturbances, and urinary retention.

*CEWG areas in which Rohypnol abuse has been reported include: Miami, Houston, and sites along the Texas-Mexico border.

Methamphetamine

Slang or Street Names: *Speed, Ice, Chalk, Meth, Crystal, Crank, Fire, Glass*

Methamphetamine is a toxic, addictive stimulant that affects many areas of the central nervous system. The drug is often made in clandestine laboratories from relatively inexpensive over-the-counter ingredients. It is used by diverse groups, including clubgoers, in some areas of the country. Methamphetamine has been available in western and southwestern regions of the country for several years, but appears to be increasingly available in other regions.

- Methamphetamine can be smoked, snorted, injected, or ingested orally. It is a white, odorless, bitter-tasting crystalline powder that dissolves easily in beverages.
- Methamphetamine is typically sold through networks; not on the street like many other illicit drugs.

- Methamphetamine abuse is associated with serious health consequences, including memory loss, aggression, violence, psychotic behavior, and cardiac and neurological damage.
- Methamphetamine abusers typically display signs of agitation, excited speech, decreased appetite, and increased physical activity levels.
- Methamphetamine is neurotoxic. Abusers may suffer significant reductions in dopamine transporters and receptors.
- Methamphetamine abuse can contribute to higher rates of infectious disease transmission, especially hepatitis and HIV/AIDS.
- NIDA's 2003 MTF study found that 3.2 percent of 12th-graders, 3.3 percent of 10th-graders, and 2.5 percent of 8th-graders had used methamphetamine within the past year.

*CEWG cities in which methamphetamine abuse has been reported include: San Diego, San Francisco, Phoenix, Atlanta, St. Louis, Denver, Honolulu, Los Angeles, Minneapolis/St. Paul, Philadelphia, Boston, Seattle, and Dallas. Methamphetamine abuse has also been reported in many rural areas of the country.

Lysergic Acid Diethylamide (LSD)

Slang or Street Names: *Acid, Boomers, Yellow Sunshines*

LSD is a hallucinogen, inducing abnormalities in sensory perceptions. The effects of LSD are unpredictable depending on the amount taken, on the surroundings in which the drug is used, and on the user's personality, mood, and expectations.

- LSD is typically taken by mouth. It is sold in tablet, capsule, and liquid forms, as well as on pieces of blotter paper that have absorbed the drug.
- Typically, an LSD user feels the effects of the drug 30 to 90 minutes after taking it. The physical effects include dilated pupils, elevated body temperature, increased heart rate and blood pressure, sweating, loss of appetite, sleeplessness, dry mouth, and tremors.
- LSD users frequently report numbness, weakness, trembling, and nausea.
- There are two long-term disorders associated with LSD—persistent psychosis and hallucinogen persisting perception disorder (which used to be called "flashbacks").
- NIDA's MTF survey data found that LSD use has decreased significantly among 10th- and 12th graders over the past few years. In 2003, past year use reached the lowest levels in the history of the survey: 1.3 percent of 8th-graders, 1.7 percent of 10th-graders, and 1.9 percent of 12th-graders reported past year use of LSD.

*CEWG cities in which LSD abuse has been reported include: Boston, Detroit, Seattle, Chicago, Denver, New Orleans, San Francisco, Atlanta, and Phoenix.

* Information from [NIDA's Community Epidemiology Work Group \(CEWG\)](#), a network of epidemiologists and researchers from 21 U.S. metropolitan areas who monitor drug use trends.

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