



Peer Educator's Manual

## **GUIDE to Drug Information Resources**



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## Guide to Drug Information Resources

In this *GUIDE*, we have included an extensive list of websites where you will find reliable, trustworthy information about drugs and drug abuse. Many of these websites are designed especially for high school students. We've also included easy-to-use *CROSSROADS Drug Information Sheets* that have been created by us especially for our Peer Educators.

You may use these *Drug Information Sheets* to:

- Help you and your fellow Peers learn more about drugs during your weekly meetings,
- Create new games and learning activities for your programs and presentations, and
- Help you learn about many of the common drugs of abuse that are not typically addressed in *CROSSROADS* lessons and activities.

*CROSSROADS* College Mentors developed these *Drug Information Sheets* from information available on the National Institute on Drug Abuse website [www.nida.nih.gov](http://www.nida.nih.gov).

REMEMBER: There is a lot of misleading information about drugs on the Internet. For the best and most accurate information, rely on scientific resources like the National Institute on Drug Abuse.

Be sure to also check out our *CROSSROADS* Online Resource Center, found on the *CROSSROADS* High School website [www.crossroadsprevention.com](http://www.crossroadsprevention.com) for additional trustworthy sites for accurate drug information.

In this *GUIDE*, we have included *Drug Information Sheets* that will provide important information about the following drugs or drug categories:

- Alcohol
- Tobacco & Nicotine
- Marijuana
- Prescription Medications (focus is on those most commonly abused)
- Cocaine
- Methamphetamine
- Inhalants
- Anabolic Steroids
- Ecstasy (MDMA)
- Heroin
- LSD (Acid)
- Mushrooms (Psilocybin)
- Club Drugs: Ketamine
- Club Drugs: GHB & Rohypnol

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## Recommended Online Resources

While there are many excellent drug information resources available both online and in print form, we have limited our list to those available directly from CROSSROADS, the National Institute on Drug Abuse and other reputable agencies. **CAUTION:** When using other online resources related to drugs and drug abuse, we advise that you always verify the trustworthiness of the site, its source and its content.

### GENERAL RESOURCES

#### **National Institute on Drug Abuse**

[www.drugabuse.gov](http://www.drugabuse.gov)

[www.nida.nih.gov](http://www.nida.nih.gov)

#### **NIDA for Teens**

<http://teens.drugabuse.gov>

#### **Mind Over Matter**

<http://teens.drugabuse.gov/mom/index.asp>

#### **Heads Up (A Scholastic and NIDA cooperative education project)**

<http://teacher.scholastic.com/scholasticnews/indepth/headsup/>

#### **NIDA InfoFacts: High School and Youth Trends in Drug Abuse**

<http://www.nida.nih.gov/Infofacts/Infofaxindex.html>

#### **ClubDrugs.gov**

<http://www.clubdrugs.org/>

#### **Teen Drinking site of the National Institute on Alcohol Abuse and Alcoholism**

[www.thecoolspot.gov](http://www.thecoolspot.gov)

#### **Clearinghouse for Alcohol and Drug Information**

[www.health.org](http://www.health.org)

#### **National Youth Anti-Drug Media Campaign**

[www.freevibe.com](http://www.freevibe.com)

[www.abovetheinfluence.com](http://www.abovetheinfluence.com)

#### **Centers for Disease Control and Prevention**

Healthy Schools, Healthy Youth

<http://www.cdc.gov/HealthyYouth/>

#### **California Department of Justice**

[www.stopdrugs.org](http://www.stopdrugs.org)

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## TOBACCO

**Truth.com Anti-Tobacco group**

[www.thetruth.com](http://www.thetruth.com)

**Centers for Disease Control and Prevention**

[www.cdc.gov/tobacco/index.htm](http://www.cdc.gov/tobacco/index.htm)

**Ministry of Health, Government of British Columbia (Canada)**

[www.tobaccofacts.org](http://www.tobaccofacts.org)

**V-CC Systems, Inc.** (A Canadian health information technology company that develops and supports community-based interactive disease management programs)

[www.stopsmokingcenter.net](http://www.stopsmokingcenter.net)

**An online information clearinghouse** for anyone who wishes to quit smoking or who wants information about lung cancer.

[www.smokingisugly.com](http://www.smokingisugly.com)

**American Cancer Society**

[www.cancer.org](http://www.cancer.org)

**American Lung Association**

[www.lungusa.org](http://www.lungusa.org)

**National Institute on Drug Abuse**

<http://smoking.drugabuse.gov/>

**QuitlineNC**

<http://www.quitlinenc.com/>

## MARIJUANA

National Institute on Drug Abuse

[www.nida.nih.gov/MarijBroch/Marijteens.html](http://www.nida.nih.gov/MarijBroch/Marijteens.html)

[www.marijuana-info.org/](http://www.marijuana-info.org/)

## TREATMENT

**Substance Abuse Treatment Facility Locator**, Substance Abuse and Mental Health Services Administration, U. S. Department of Health & Human Services

<http://findtreatment.samhsa.gov/>

**Alcoholics Anonymous, a 12-step recovery group**

[www.aa.org](http://www.aa.org)

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**Narcotics Anonymous, a 12-step recovery group**

[www.na.org](http://www.na.org)

**Cocaine Anonymous, a 12-step recovery group**

[www.ca.org](http://www.ca.org)

**Marijuana Anonymous, a 12-step recovery group**

[www.marijuana-anonymous.org](http://www.marijuana-anonymous.org)

**STATISTICS**

Youth Risk Behavior Survey, a national study of teen substance use

[www.cdc.gov/HealthyYouth/yrbs](http://www.cdc.gov/HealthyYouth/yrbs)

**FOR PARENTS**

National Youth Anti-Drug Media Campaign

[www.theantidrug.com](http://www.theantidrug.com)





# **CROSSROADS Drug Information Sheets**



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Information on the following CROSSROADS Drug Information Sheets excluding that for alcohol comes from the National Institute on Drug Abuse (NIDA) of the National Institutes of Health. That information is taken from the NIDA documents Research Reports and InfoFacts fact sheets. These can be accessed at <http://www.nida.nih.gov/>. Information on alcohol comes from the National Institute on Alcohol Abuse and Alcoholism and their Alcohol Alert publications, accessed at <http://www.niaaa.nih.gov/>.

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## Alcohol

Common street names: booze



alcohol; drive; drinking; drunk; binge; driving; hangover; dependence; withdrawal; tolerance; standard; party; spirits; wine; beer; soft; drink; liqueur; alcopops; soda; pregnancy;

### What is alcohol?

- Ethyl alcohol (the kind of alcohol that people drink) is a “depressant.” As a depressant, it inhibits you and slows down your central nervous system.
- After prolonged use, it can do a great deal of damage to your body and brain. Like any other drug, alcohol use can under some circumstances and in some people lead to addiction.

### What is considered a standard drink?

- Until recently, we defined a “standard drink” as a 12 oz. beer, 1.5 oz. of liquor or 5 oz. of wine. Each of these contains the same amount of ethyl alcohol. Like so many things in today’s “super-size it” world, many people have come to think of “standard drinks” as being much larger than this. And so as the drinks get larger, so does the dose of alcohol!

### What happens to alcohol in the body?

Alcohol is absorbed through the walls of the stomach and small intestine into the bloodstream. Once in the bloodstream, alcohol is carried to the rest of the body, including the liver and the brain.

- In the liver, alcohol is slowly metabolized (broken down and removed from the body).
- In the brain, alcohol slows the action of nerve cells – that’s the “depressant” effect.
- Some alcohol is not metabolized and is excreted (gotten rid of) unchanged through the lungs, in urine and in sweat.

In small amounts, alcohol makes people feel more relaxed and less inhibited. This lowering of inhibitions may cause them to do things they would not normally do.

With **larger amounts** of alcohol:

- Movements become clumsy
- Reflexes are slowed down
- Eyes do not focus properly

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- Speech becomes slurred
  - Judgment becomes impaired (e.g. A person might drive while intoxicated or have unsafe sex.)

In persons consuming large amounts of alcohol, and particularly in adolescents, they are often not aware of these changes. Even though these changes can, in adults, serve as a critical warning that one has had too much to drink, the adolescent's brain does not sense or recognize the changes at all and so does not provide the protective benefit of these warnings. In fact, the person drinking may think that they are able to do things even better than usual, when in fact they cannot do them nearly as well or as safely. For example, they might drive faster than usual when they have been drinking because they think they are driving safely. Unfortunately, the fact is they are driving much more poorly and much more unsafely than usual!

Large amounts of alcohol can also have a strong effect on the person's mood. While drinking, they might become:

- Violent and aggressive
- Very depressed
- Excitable and reckless
- Withdrawn and sleepy

**Long term effects** of drinking too much include:

- Arguments with friends
- Family conflict and breakdown
- Concentration and memory problems
- Missing work and maybe getting fired
- Sleeping difficulties
- Sexual complications
- Heart damage
- Liver damage
- Cancers of the digestive system and breast
- Brain damage, causing changes in mood and personality

**Consequences of use:**

- Alcohol use among teens has far-reaching effects
  - o Alcohol-related traffic accidents are a major cause of death and disability among teens.
  - o Teens who use are more likely to become sexually active earlier, engage in sexual intercourse more often and have unprotected sex than are those who do not drink.
  - o Those who drink are more likely to become victims of violent crimes.
  - o Those who drink are more likely to have problems with school work and conduct.
- Alcohol use among adolescents can have serious health risks that are related to
  - o Alcohol's negative effects on the developing brain, liver and endocrine/hormone balance and

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- o The adolescent brain's failure to send warning signals to the user that they have consumed too much.
  - o Persons who begin using alcohol prior to 15 years of age are at significantly greater risk for experiencing alcohol dependence problems later in life than those who first used at age 21 or later.
  - Alcohol poisoning can occur when one drinks too much alcohol within a short period of time. Remember that alcohol is a depressant that acts on the brain by suppressing its normal activities. Too much alcohol can lead to death because of these suppressing effects.
    - Hangovers occur after a person has consumed too much alcohol. Generally the more alcohol the person has had, the worse the hangover.
      - o Hangover symptoms start a few hours after stopping drinking and can last up to 24 hours, long after the blood alcohol concentration has returned to zero. Time is the only thing that is known to always improve the hangover symptoms. Though most symptoms are usually gone within 24 hours, that's 24 hours of feeling really, really bad that can be avoided altogether
      - o Symptoms of hangover include:
        - tiredness, headache, dizziness, increased sensitivity to light
        - muscle aches, extreme thirst, red eyes
        - raised blood pressure and rapid heart rate
        - shaking, sweating
        - depression, anxiety and irritability

### Scary Facts

- Teens can and do become addicted!
- Adolescents who begin drinking before age 15 are **four times more likely** to develop dependence on alcohol than those who begin drinking at age 20 or older.
- Out of those who begin drinking at age 15 or earlier, approximately **40%** will experience dependency later in life.

### Sources:

National Institute on Alcohol Abuse and Alcoholism. *Underage Drinking*. Alcohol Alert, No. 67 (2006).

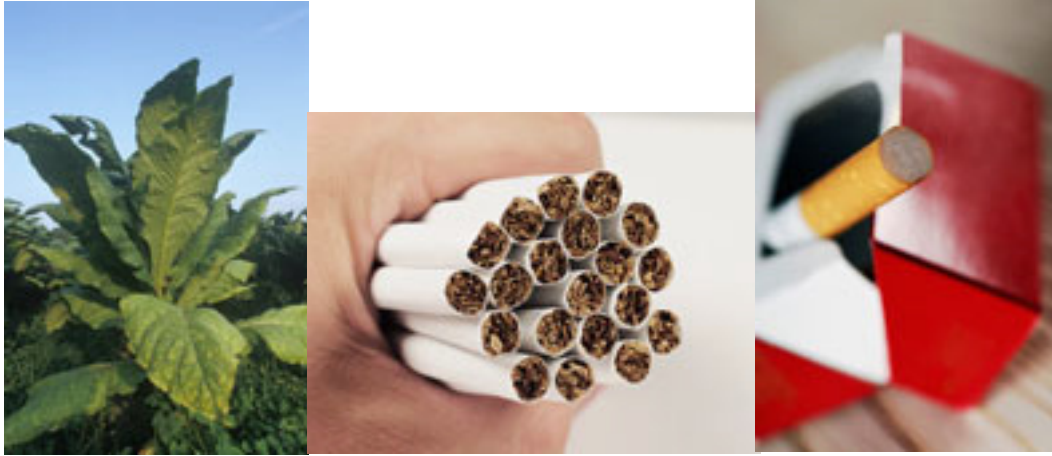
National Institute on Alcohol Abuse and Alcoholism. *Underage Drinking: A Major Public Health Challenge*, Alcohol Alert, No. 59 (2003).

National Institute on Alcohol Abuse and Alcoholism. *Youth Drinking: Risk Factors and Consequences*, Alcohol Alert, No. 37 (1997).

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## Tobacco & Nicotine

Common street names: dip, chew, snuff



### What are Tobacco and Nicotine?

- Nicotine, the active ingredient in tobacco, is the most heavily addictive substance in the United States. Surprisingly, it only takes about 8 seconds for nicotine to change the way the brain works. The process is so quick because nicotine acts like the natural chemical *acetylcholine* in the brain.
- Within 40 minutes of use, half of the effects of nicotine are gone. That's why a smoker feels the strong need (craving) for more of the drug and wants their next cigarette. This happens over and over again until the brain gets used to the drug nicotine. After continued use of nicotine, the brain begins to require it just to feel "normal."

### How is it used?

Tobacco can be smoked, dipped or chewed.

### How it affects the body

- Smoking harms nearly every organ in the body and causes many health problems and diseases.
- Cigarette smoke contains more than 4,000 chemicals including nicotine, tar, carbon monoxide, acetaldehyde, nitrosamines and many more.
  - o Tar is a dangerous chemical that causes lung cancer, emphysema, and bronchial diseases.
  - o Carbon monoxide causes heart problems and puts smokers at very high risk for heart disease.
- Smoking has also been linked to leukemia, cataracts, and pneumonia.
- Tobacco use kills nearly half a million Americans each year. In fact, one in every six U.S. deaths is the result of smoking, making tobacco more lethal than alcohol, cocaine, heroin, homicide, suicide, car accidents and AIDS combined.

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## Health consequences of use

- **Smoking**
  - o Lung cancer
  - o Emphysema
  - o Bronchial disorders
  - o Cardiovascular diseases
- **Smokeless tobacco:**
  - o Throat cancer
  - o Mouth cancer
- **Second-hand smoke** may cause respiratory illnesses in children and has been associated with sudden infant death.

WARNING: There is NO safe tobacco product. The use of any tobacco product—cigarettes, cigars, pipes and spit tobacco; mentholated, filtered, “low tar,” “naturally grown” or “addictive free”—can all cause cancer and many other adverse health effects.

## Smoking and adolescents

- In 2006, studies showed that there were nearly 4 million American adolescents who had used tobacco in the past month. Nearly 90 percent of smokers start smoking by the age of 18. Of smokers under age 18, more than 6 million will die prematurely from a smoking-related disease.
- Teen smokers are 15 times more likely to have panic attacks than those who don't smoke. Teen smokers are also more likely to experience anxiety disorders and depression than those who don't smoke.
- Peer pressure is not the only reason that some adolescents begin smoking. Research suggests that there may be biological reasons for adolescents' increased vulnerability to tobacco and nicotine.
- Adolescents may actually be more sensitive to the reinforcing or “feel good” effects of nicotine in combination with other chemicals found in cigarettes, thus increasing their susceptibility to tobacco addiction.

## Are there effective treatments for tobacco addiction?

- Yes, research shows that treatment does work. Even though some smokers can quit without treatment, there are many who need help quitting. Quitting is important because smoking cessation has IMMEDIATE` health benefits. For example, within 24 hours of quitting, both blood pressure and one's chances of having a heart attack go down.
- Long-term benefits of smoking cessation (quitting) include a decline in the risk of stroke, lung and other cancers and heart disease. A 35 year old man who quits smoking can increase his life expectancy by 5 years.
- Nicotine replacement therapies like nicotine gum and the transdermal nicotine patch were the first to be approved by the Food and Drug Administration (FDA). These treatments are beneficial and do not cause further health problems cause they have lower nicotine levels and do not contain the cancer-causing chemicals associated with tobacco.

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To get further scientific information about nicotine addiction, visit the National Institute on Drug Abuse Web site at [www.drugabuse.gov](http://www.drugabuse.gov).

**Sources:**

National Institute on Drug Abuse. *Cigarettes and Other Tobacco Products*. NIDA InfoFacts, (2006)

National Institute on Drug Abuse. *Tobacco Addiction*. Research Report Series, (n.d.).

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## Marijuana

Common street names: pot, grass, herb, weed, Mary Jane, reefer, skunk, boom, gangster, kif, chronic, and ganja



### What is marijuana?

Marijuana is a green, brown, or gray mixture of dried, shredded leaves, stems, seeds, and flowers of the hemp plant *Cannabis sativa*. Delta-tetrahydrocannabinol, better known as THC, is the primary active chemical in marijuana and is responsible for the drug's psychoactive effects. Sinsemilla, hashish and hash oil are all forms of marijuana and all contain THC.

Marijuana is considered a mild hallucinogen with also some depressant and disinhibiting properties. User response to the drug is heavily influenced by expectations and past experience.

Marijuana is the most commonly used illegal drug in the United States. While approximately 95 million Americans over the age of 12 have tried marijuana at least once, the *2008 Monitoring the Future* survey of high school students revealed that more than 88% of 8th, 10th and 12th graders reported that they had NOT used it in the 30 days prior to the survey.

### How marijuana affects the body:

- Marijuana impairs short-term memory, sometimes causing the user to have trouble handling complex tasks.
- Chronic marijuana smokers (those who smoke regularly) get chest colds, bronchitis, emphysema, and bronchial asthma. Persistent use will damage lungs and airways and raise the risk of cancer.
- The body is exposed to as many cancer-causing chemicals from smoking one marijuana joint as from smoking five tobacco cigarettes because of the lack of filtration and because of the way marijuana users inhale deeply and hold in the smoke.
- There is evidence that marijuana may limit the ability of the immune system to fight infection and disease.
- Marijuana also affects hormones. Regular use can delay the onset of puberty in young men and reduce sperm production. For women, regular use may disrupt normal monthly menstrual cycles and inhibit ovulation.
- When pregnant women use marijuana, they run the risk of having smaller babies with lower birth weights. Their babies are more likely than other infants to develop health problems. Some studies have also found indications of developmental delays in children exposed to marijuana before birth.

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- Marijuana use reduces learning ability and limits the capacity to absorb and retain information. Studies show that users may fall short on memory as well as in math and verbal skills. Animal studies have shown marijuana-induced structural damage to portions of the brain essential to memory and learning.

#### **Specific problems associated with marijuana use**

- Impaired perception
- Diminished short-term memory
- Loss of concentration
- Problems with thinking and problem-solving
- Impaired motor coordination
- Increased heart rate
- Occasionally may cause anxiety, panic attacks, paranoia
- Chronic cough, bronchitis and emphysema in chronic abusers
- Heavy users have trouble recalling events and shifting attention from one thing to another.
- Damage to reproductive and immune systems
- Increased risk of cancer
- Psychological dependency

#### **How long does marijuana stay in the body?**

While most of marijuana's short-term effects wear off within several hours, THC tends to linger on. Because THC is a fat-soluble substance, it accumulates in fatty tissues in the liver, lungs, and other organs and will show up in standard urine tests several days after last use. In chronic abusers, traces of THC can sometimes be detected weeks after last use.

#### **Sources:**

National Institute on Drug Abuse. *Marijuana*. NIDA InfoFacts, (2008)

National Institute on Drug Abuse. *Marijuana Abuse*. Research Report Series, (n.d.).

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## Prescription Medications



### What are prescription medications?

Prescription medications are drugs prescribed by a doctor to a specific person for a specific reason. Misuse occurs whenever someone unintentionally takes their prescription drug incorrectly. Misuse is common among the elderly. Abuse occurs when someone borrows, buys, or steals prescription medications from someone else or in some way intentionally uses prescription medications for purposes and in ways other than as prescribed.

Pain relievers, tranquilizers, stimulants, and sedatives are useful when taken as prescribed because they can make it possible for some people to lead more productive, normal lives. We know, however, that some people use these medications in an irresponsible, non-medical and illegal way.

Research suggests that young people who use other drugs are significantly more likely to abuse prescription medications. It has also been found that those who abuse prescription medications may also be more likely to engage in other high risk behaviors.

### Commonly abused prescription medications:

While many prescription medications can be abused or misused, these three classes of drugs are the most commonly abused:

- **Opioids or Pain killers** - prescribed to treat pain
- **Central nervous system (CNS) depressants or depressants** – prescribed to treat anxiety and sleep disorders
- **Stimulants** - prescribed to treat narcolepsy and attention deficit hyperactivity disorder (ADHD)

### PAIN KILLERS

- Commonly prescribed because of their ability to relieve pain
- Should only be taken with medical supervision
- Sometimes called narcotics, this category includes morphine, codeine, oxycodone, and related medications. Morphine is often used before or after surgery to alleviate (ease) severe pain. Codeine is used for mild pain. Codeine and others may also be used to relieve coughs and diarrhea. Names for some common pain killers are OxyContin, Vicodin, Percodan, Percocet, and Demerol.

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### Dangers of Pain Killer Use

- Depresses breathing: Taking a single large dose can cause severe respiratory depression and death.
- Long-term use can lead to physical dependence.
- High risk for addiction and overdose. This is an even greater concern with abuse of today's slow-release formulations.
- Should never be used with other medications, including over-the-counter medications, except under a doctor's supervision. Pain killers should never be used with other substances that depress the central nervous system like alcohol, antihistamines, barbiturates, or benzodiazepines. Doing so can significantly and dangerously slow breathing, resulting in life-threatening respiratory depression.
- There is heightened risk for HIV among users who inject pain killers.
- Just as use of pain killers should be closely monitored by a physician, so should stopping their use. This is necessary in order to reduce or avoid withdrawal symptoms. Some common symptoms of pain killer withdrawal include restlessness, muscle and bone pain, insomnia, diarrhea, vomiting, and involuntary leg movements.

### PRESCRIPTION DEPRESSANTS

These are designed to slow brain activity and function, making them useful for treating anxiety and sleep disorders. Tranquilizers and sedatives are examples of CNS depressants.

#### Two groups of prescription depressants:

- **Barbiturates** are used to treat anxiety, tension, and sleep disorders. These include Mebaral and Membutal.
- **Benzodiazepines** are prescribed to treat anxiety, acute stress and panic attacks. Some are also prescribed for short-term treatment of sleep disorders. Benzodiazepines are usually prescribed for short-term use only. This group of CNS depressants includes Valium, Xanax, Librium, and Halcion.

#### Dangers of depressant use:

- When stopping these medications, even if used as prescribed, users often experience some withdrawal effects. Persons who wish to discontinue use should always consult their physician.
- Both barbiturates and benzodiazepines can be addictive.
- Should be taken only as prescribed and should never be combined with any medication that causes sleepiness including prescription pain medicines, certain over-the-counter cold and allergy medications, and alcohol. If used with these substances, their combined effects can dangerously slow breathing or both the heart and respiration rates, possibly leading to death.

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## **PRESCRIPTION STIMULANTS**

Use of these drugs for medical purposes is very limited today due to their high potential for abuse. Prescription stimulants increase alertness, attention, and energy. They cause an increase in respiration, heart rate and breathing.

- As their abuse potential has become apparent, their legitimate use has declined.
- Today, stimulants are prescribed for only a few health conditions including narcolepsy and attention-deficit hyperactivity disorder (ADHD). They are occasionally prescribed for depression that has not responded to other treatments and on a short-term basis for the treatment of obesity and asthma.
- Stimulants increase the amount of key neurotransmitters in the brain and body, particularly norepinephrine and dopamine. This results in increased blood pressure, heart rate and blood glucose and opens respiratory pathways. Dopamine is responsible for the euphoria associated with stimulants.
- Examples of stimulants include Ritalin, Dexedrine, Adderall, and Concerta.

### **Dangers of prescription stimulant use:**

- Contrary to popular belief, stimulants are not safe for enhancing academic performance or for weight loss.
- Consequences of stimulant abuse can be very dangerous. High doses can cause irregular heartbeat, dangerously high body temperatures, and the possibility of cardiovascular failure or seizures, especially if stimulants are mixed with other medications. When taken in high doses over a short period of time, stimulants can cause feelings of hostility or paranoia.
- Combining stimulants with other drugs should only be done under a doctor's supervision. Combining them with antidepressants can dangerously increase the stimulant's effects. Combining them with over-the-counter medications containing decongestants can cause dangerously high blood pressure or lead to irregular heart rhythms.
- Stimulants are highly addictive. Common withdrawal symptoms include fatigue, problems sleeping, and depression.
- Repeated use of some stimulants over a short period can lead to feelings of hostility or paranoia.

## **DANGERS OF COMBINING ALCOHOL WITH PRESCRIPTION MEDICATIONS**

The greatest dangers prescription medications pose are those that occur when they are used with alcohol. Pain killers and depressants are particularly dangerous in combination with alcohol. Used by themselves, both prescription pain killers and depressants act by depressing the central nervous system. When either is combined with the depressant alcohol, the effects of both the prescription drug and alcohol are greatly multiplied, even far beyond the effect of either drug alone. The results of this combination can become deadly!

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**Sources:**

National Institute on Drug Abuse. *Stimulant ADHD Medications: Methylphenidate and Amphetamines*. NIDA InfoFacts, (2008)

National Institute on Drug Abuse. *Prescription Pain and Other Medications*. NIDA InfoFacts, (2006)

National Institute on Drug Abuse. *Prescription Drugs Abuse and Addiction*. Research Report Series, (n.d.).

National Institute on Drug Abuse. *Prescription Drug Abuse*. Topics in Brief, (2008).

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## Cocaine

Common street names: "crack" Snow white, coke, flake, blow, rock



### What is cocaine?

Cocaine is a strong central nervous system stimulant that increases levels of dopamine in the brain. Dopamine is a neurotransmitter associated with movement and feelings of pleasure. Cocaine is a powerfully addictive drug that may be snorted, sniffed, injected, or smoked. "Crack" is a smokable form of cocaine and is referred to as "freebase".

### A brief history of cocaine:

- Extracted from the leaves of the coca plant
- Originally used in South America in the mid-19th century to relieve fatigue
- Pure cocaine (cocaine hydrochloride) was first used as an anesthetic for surgeries in the 1880s and was the main stimulant drug used in tonics and elixirs (a sweetened solution of a drug, alcohol and water) for treatment of various illnesses in the early 1900s.
- Crack, the freebase form of cocaine, gets its name from the crackling sound made when heating the sodium bicarbonate (baking soda) or ammonia used to make it. Crack became popular in the mid-1980s because of its immediate high and its inexpensive production cost.

### How is cocaine used?

- Powder cocaine is usually snorted or dissolved in water and injected.
- Crack, or "rock," is smoked.
- Cocaine is frequently used in binges, meaning it is taken repeatedly over a short period of time and in increasing doses.

### How cocaine affects the body

- Effects normally occur immediately after ingestion and can last from a few minutes to a few hours. Duration depends on how it's ingested.
- Snorting cocaine produces a slow onset of effects that can last from 15 to 30 minutes, while the effects of smoking cocaine are felt more rapidly, may last from 5 to 10 minutes and produce an intense high.
- Cocaine produces its euphoric effects by causing dopamine to accumulate in the brain rather than be reabsorbed. This causes the continuous stimulation of the brain's neurons.
- Users feel energetic, talkative, and euphoric even with small amounts.
- When used in large amounts, cocaine can lead to bizarre, erratic or violent behavior.

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- Cocaine use can temporarily decrease the user's need for sleep and food.
  - Physiological effects: constricted blood vessels; increased body temperature, heart rate, and blood pressure; violent behavior, tremors, vertigo, paranoia, anxiety, and restlessness.

**Consequences of use:**

- Cardiovascular effects (disturbances in heart rhythm, heart attacks), respiratory failure, neurological effects (strokes, seizure, and headaches), and gastrointestinal complications like abdominal pain and nausea.
- Linked to heart disease, chaotic heart rhythms, accelerated heart beat and breathing, and increase blood pressure and body temperature.
- Blurred vision, fever, muscle spasms, convulsions, and coma. In rare instances, sudden death can occur on the first use of cocaine or unexpectedly thereafter. Cocaine-related deaths are often a result of cardiac arrest or seizures followed by respiratory arrest.
- Users may lose their sense of smell, experience nose bleeds and problems swallowing and have an overall irritation of their nasal septum that leads to a chronic runny nose.

**Dangers of combining cocaine and alcohol:**

Using alcohol with cocaine can be a very dangerous mixture, far more dangerous than either drug alone. This combination converts in the liver to cocaethylene that can intensify cocaine's euphoric effects but also greatly increasing the risk of sudden death. This mixture is responsible for more drug-related deaths than any other combination of drugs!

**Sources:**

National Institute on Drug Abuse. *Crack and Cocaine*. NIDA InfoFacts, (2006)

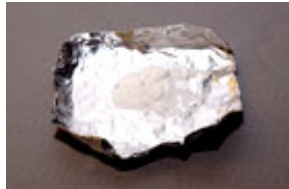
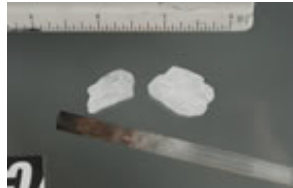
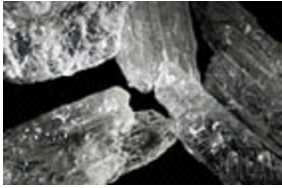
National Institute on Drug Abuse. *Cocaine Abuse and Addiction*. Research Report Series, (n.d.).

National Institute on Drug Abuse. NIDA for Teens. *Stimulants*. [http://teens.drugabuse.gov/facts/facts\\_stim1.asp](http://teens.drugabuse.gov/facts/facts_stim1.asp). Retrieved July 2008.

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## Methamphetamine

Common street names: Meth, crystal, crystal, glass, tina, speed, chalk



### What is Methamphetamine?

Methamphetamine is a highly addictive “stimulant” that affects the central nervous system. A powerful form of its parent drug amphetamine, methamphetamine is a clear, odorless bitter-tasting crystal or a powder that dissolves in water or alcohol.

Methamphetamine has gained popularity partly because it can be easily made in illegal laboratories with commonly available ingredients. It has a high potential for abuse and addiction.

- Some of its many street names are “speed” and “meth”. Its smokable form is known as “crystal”, “ice”, “crank”, and “glass.”
- “Crystal” or “crystal meth” resembles small fragments of glass or shiny blue-white “rocks” of various sizes.
- It’s abused because of the long-lasting euphoric effects it produces.

Methamphetamine was developed from amphetamine originally for use in nasal decongestants and bronchial inhalers. Unlike amphetamine, however, more methamphetamine gets into the brain, making it a more potent stimulant. It’s also longer-lasting and has more harmful effects on the central nervous system.

### How meth is used:

Methamphetamine is taken orally or intra-nasally (by snorting the powder), by intravenous injection, and by smoking. Immediately after smoking or intravenous injection, the methamphetamine user experiences an intense sensation, called a “rush” or “flash”, that lasts only a few minutes. Oral or intra-nasal use produces euphoria—a high, but not a rush. Users may become addicted quickly and use it with increasing frequency and in increasing doses. Like other stimulants, meth is sometimes used in a binge and crash cycle. One form of bingeing associated with meth is a “run”. This is when the user takes the drug repeatedly over several days, while skipping sleep and food.

### How it affects the body:

While cocaine’s effects are caused by its blocking of the re-absorption of the neurotransmitter dopamine in the brain, methamphetamine both blocks re-absorption and causes the brain to release unusually high levels of dopamine. (Dopamine is associated with motivation, pleasure and movement and is involved in the way most drugs of abuse affect the brain.)

With continued use, methamphetamine appears to have a neurotoxic effect, resulting in damage to the brain cells that release dopamine as well as another neurotransmitter, serotonin. Over time, methamphetamine use appears to lead to reduced levels of dopamine in the brain which can result in symptoms like those of Parkinson’s disease, a severe movement disorder.

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**Consequences of use:**

Nervous system reactions from taking even small amounts of methamphetamine include increased wakefulness and physical activity, decreased appetite, increased respiration, hyperthermia (high body temperature), and euphoria. Other central nervous system effects include irritability, insomnia, confusion, tremors, convulsions, anxiety, paranoia, and aggressiveness. Hyperthermia and convulsions can result in death.

Methamphetamine also causes increased heart rate and blood pressure and can cause irreversible damage to blood vessels in the brain, producing strokes. Long-term use can lead to extreme weight loss, mood disturbances and violent behavior. Other effects of methamphetamine use include respiratory problems, irregular heartbeat, and extreme anorexia. Its use can result in cardiovascular collapse and death.

**What are other concerns?**

Medical use of methamphetamine is very limited. Because of its high potential for abuse and addiction, it is considered a Schedule II drug. Much of the methamphetamine available today comes from illegal labs from throughout the U.S. and Mexico. Illegal production of methamphetamine, especially in the small "home" labs found throughout the U.S., has created an important environmental hazard. It is estimated that one lab produces 5 to 6 pounds of hazardous waste for every 1 pound of meth. Contamination is found throughout the buildings where labs are located, in the surrounding land and water supplies and on nearby vegetation. In some areas, authorities have reported finding trees that had been killed as a result of their contamination from these small illegal labs.

**Sources:**

National Institute on Drug Abuse. *Methamphetamine*. NIDA InfoFacts, (2008)

National Institute on Drug Abuse. *Methamphetamine Abuse and Addiction*. Research Report Series, (n.d.).

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## Inhalants

Common street names: whippets, snappers, poppers



### What are inhalants?

Inhalants are substances which produce dangerous chemical vapors that are intentionally inhaled for their mind-altering effects. If enough of these vapors are inhaled, they can create a high that is similar to alcohol intoxication and can lead to loss of sensation and even unconsciousness. Inhalants are huffed or sniffed to give the user an immediate high. Inhaling is the only way these substances are used.

There are four general categories of inhalants:

- volatile solvents,
- aerosols,
- gases, and
- nitrites.

Volatile solvents, aerosols and gases act directly on the central nervous system, while nitrites act dilate the blood vessels and relax the muscles.

A number of products commonly found in the home and workplace can be used as inhalants for their psychoactive effects. These include:

- Spray cans (paint)
- Cleaning solvents
- Glue
- Household cleaners

Inhalants are breathed in through the nose or mouth in a variety of ways. Initially, users may feel slightly stimulated. Repeated inhalations make them feel less inhibited and less in control. If inhalations are continued, users can lose consciousness.

### How they affect the body:

- Nearly all inhalants (but excluding nitrites) depress the central nervous system.
- Nitrites dilate and relax the blood vessels.
- Inhalants deprive the body of oxygen, creating a condition called hypoxia. The lack of oxygen damages cells throughout the body and particularly in the brain. Persons who use inhalants repeatedly may experience memory problems.
- Other effects of inhalant use include dizziness, drowsiness, depressed reflexes, muscle weakness, lack of coordination, aggressiveness, apathy, impaired judgment, headache, nausea and vomiting.

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- Highly concentrated Inhalants can cause heart failure and death within minutes of a session of repeated inhalations. This syndrome, known as “sudden sniffing death,” can happen as a result of using inhalants only once, even if you’re healthy! “Sudden sniffing death” is particularly associated with the abuse of butane, propane, and chemicals in aerosols.
  - Inhalants also can cause death from suffocation by displacing oxygen in the lungs and then in the central nervous system so that breathing stops. Deliberately inhaling from a paper or plastic bag or in a closed area greatly increases the chances of suffocation.
  - Chronic abuse can cause severe, long-term damage to the brain, the liver, and the kidneys.

NOTE: Even when using aerosols and paint products appropriately for their intended purposes (i.e., painting, cleaning), it’s important to only do so in a well-ventilated room or in the outdoors. In many circumstances, safe use may require the use of a mask that covers the nose and mouth.

**Consequences of use:**

Loss of sense of smell	Liver, lung and kidney damage
Hepatitis	Nervous system damage
Violent behavior	Irregular heartbeat
Brain damage	Nausea and nosebleeds
Headache, muscle weakness, abdominal pain	
Involuntary passing of urine and/or feces	

**Sources:**

National Institute on Drug Abuse. *Inhalants*. NIDA InfoFacts, (2008)

National Institute on Drug Abuse. *Inhalant Abuse*. Research Report Series, (n.d.).

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## ANABOLIC STEROIDS

Common street names: arnolds, gym candy, pumpers, stackers, weight trainers, juice



### What are anabolic steroids?

Anabolic steroids are synthetic substances related to the male sex hormones like testosterone. Anabolic steroids are also called anabolic-androgenic steroids. Anabolic means “muscle-building” and androgenic refers to their characteristic of producing an increase in male sexual characteristics.

Anabolic steroids are abused by both athletes and non-athletes to enhance performance and improve physical appearance. While they are not usually abused for their “mind-altering” effect, long-term use can affect some of the same brain pathways and chemicals as other drugs of abuse.

Anabolic steroid use can lead to very serious health problems, some of which are irreversible.

(Anabolic steroids should not be confused with the steroids doctors prescribe for inflammation and swelling. These are *corticosteroids* and do not build muscle the way anabolic steroids do.)

### Brief history:

Anabolic steroids were originally developed in the late 1930s to treat a condition in which the body failed to produce enough testosterone for normal growth and sexual development and functioning. They were initially abused primarily by body builders and weight lifters but have since been used by persons in other sports as well as by non-athletes.

### How they affect the body:

- **Steroids affect your heart.** Steroid abuse has been associated with cardiovascular disease, including heart attack and stroke. These heart problems can even happen to athletes under the age of 30.
- **Steroids affect your appearance.** In both sexes, steroids can cause male-pattern baldness, cysts, acne, and oily hair and skin. In males, it can cause the testicles to shrink and the breasts to become enlarged. In females, it can

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cause a decrease in breast size, coarsening of the skin, deepening of the voice and an increase in body and facial hair. If used in children or adolescents, steroids can stunt growth.

- **Steroids affect your mood.** Steroids can cause unexplained outbursts of anger and hostility. There are recorded cases of murder attributed to intense anger from steroid use.
- **Steroids increase your risk of infection.** Sharing needles or using dirty needles to inject steroids puts the user at risk for diseases such as HIV/AIDS and hepatitis.

#### **Slang terms associated with steroid use:**

- *Roid rage*—uncontrolled outbursts of anger, frustration, or combativeness that may result from using anabolic steroids
- *Cycling*—taking steroids for a period of time, stopping use then starting again
- *Stacking*—taking two or more types of anabolic steroids; for example using oral and injectable forms at the same time
- *Pyramiding*—slowly increasing the number of steroids used or their dosage for a period of time, then slowly decreasing back to zero

#### **Consequences of use:**

- **Know the law.** Steroids are illegal to possess without a prescription from a licensed physician. It is also illegal for individuals to sell steroids.
- **Get the facts.** Doctors prescribe steroids for specific medical conditions. They are only safe for use when a doctor monitors the person taking them.
- **Know the risks.** Illegal steroids are made overseas and smuggled into the United States or made in underground labs in this country. They pose greater health risks because they are not regulated by the government and may not be pure or labeled correctly.
- **Look around.** The majority of teens aren't using steroids. Among teenagers surveyed in the 2007 Monitoring the Future Survey, past year use was reported by only 0.8 percent of 8th graders, 1.1 percent of 10th graders, and 1.4 percent of 12th graders.

#### **How can you tell if a friend is abusing steroids?**

Sometimes it's hard to tell. But there are signs. If your friend has one or more of the following warning signs, he or she may be abusing steroids:

##### **For Guys:**

- Baldness
- Development of breasts
- Impotence

##### **For Girls:**

- Growth of facial hair
- Deepened voice
- Breast reduction

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**For Both:**

- Jaundice (yellowing of the skin)
- Swelling of feet or ankles
- Aching joints
- Bad breath
- Mood swings
- Nervousness
- Trembling

**Sources:**

National Institute on Drug Abuse. *Steroids (Anabolic-Androgenic)*. NIDA InfoFacts, (2008)

National Institute on Drug Abuse. *Anabolic Steroid Abuse*. Research Report Series, (n.d.).

National Institute on Drug Abuse. NIDA for Teens. *Anabolic Steroids*. [http://teens.drugabuse.gov/facts/facts\\_ster1.asp](http://teens.drugabuse.gov/facts/facts_ster1.asp). Retrieved July 2008.

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## Ecstasy (MDMA)

Common street names: E, X, XTC, Adam, hug, beans, love drug, lover's speed



### What is ecstasy?

Ecstasy or MDMA is a synthetic drug that has stimulant and psychedelic or hallucinogenic properties.

### Brief history:

MDMA was developed in the early 1900s as a compound from which to create pharmaceuticals. During the 1970s and early 1980s, it was used as an aid to psychotherapy. During the 1980s, it began to be found on the street and in 1985, was banned by the U.S. Drug Enforcement Administration. Today it is a Schedule I drug, meaning it has no therapeutic value.

### How it is used:

It can be taken by mouth through tablet, capsule or pill form. MDMA pills may be different colors and sometimes have cartoon-like images on them. Some MDMA users take more than one pill at a time, called "bumping."

Ecstasy may contain other substances in addition to MDMA so the purity of the drug is always questionable. Some of these substances added to it include ephedrine (a stimulant diet drug), dextromethorphan (DXM, a cough suppressant), ketamine (an anesthetic used mostly by veterinarians), caffeine, cocaine, and methamphetamine. As is true with most drugs of abuse, users often deliberately take ecstasy in combination with other substances like marijuana and alcohol. An addither drugs chemically similar to MDMA (ecstasy) are sometimes sold as ecstasy. These drugs can be neurotoxic and may create additional health risks to the user.

### Physical effects:

- In high doses, ecstasy can impair the body's ability to regulate temperature. This can lead to a sharp increase in body temperature (hyperthermia) resulting in liver, kidney, and cardiovascular system failure and possibly even death.
- Users experience physical effects similar to those experienced by users of other stimulants like cocaine and amphetamines. These include: increased heart rate and blood pressure, muscle tension, involuntary teeth clenching, nausea, blurred vision, faintness, and chills/ and sweating.

### Psychological effects:

- Confusion, depression, sleep problems, drug craving, and severe anxiety. These problems can occur days or weeks after use.
- Almost 60% of people who use ecstasy report withdrawal symptoms including exhaustion, little or no appetite, trouble focusing, and depression.

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- Ecstasy affects *serotonin*, a neurotransmitter that communicates with other neurons in the brain. Serotonin plays an important role in regulating mood, aggression, sexual activity, sleep and sensitivity to pain.

**Sources:**

National Institute on Drug Abuse. *MDMA (Ecstasy)*. NIDA InfoFacts, (2008)

National Institute on Drug Abuse. *Club Drugs (GHB, Ketamine and Rohypnol)*. NIDA InfoFacts, (2008)

National Institute on Drug Abuse. *MDMA (Ecstasy) Abuse*. Research Report Series, (n.d.).

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## Heroin

Common street names: smack, junk, "H" , "Ska", black tar, horse



### What is heroin?

Heroin, an opiate made from morphine, is a highly addictive nervous system depressant and analgesic (pain killer). It is the most abused of the opiates. Morphine is an extract of the seed pod of the Asian opium poppy. Heroin is usually sold as a white or brown powder or a black sticky substance. Often cut or diluted with other compounds like sugar, starch, quinine and sometime poisons like strychnine, purer forms are seen more often now than in the past.

### How it is used:

Sniffed/snorted, smoked, injected (most popular and most dangerous), swallowed

### Physical and psychological effects:

Heroin is converted to morphine once it reaches the brain. Heroin plugs into receptor cells in the brain that regulate perceptions of pain and pleasure or reward. It also plugs into receptors in the brain stem where many of the body's critical functions are regulated like breathing, blood pressure and arousal.

- **At low doses:** causes a dreamlike state of intoxication with side effects such as constricted pupils, nausea, vomiting, fainting, restlessness, constipation, sweatiness, loss of appetite, low body temperature, slow breathing, slow heart rate, and stupor.
- **At high doses,** these effects increase, along with depressing effects on breathing, heart rate, and blood pressure. At very high doses respiratory failure and death can result!
- Heroin abuse is associated with serious health conditions including fatal overdose, collapsed veins, and, mostly in users who inject the drug, infectious diseases like HIV/AIDS and hepatitis.
- **Short-term effects** of heroin abuse are initial euphoria, followed by an alternately wakeful and drowsy state.
- **Long-term effects** are collapsed veins, infection of the heart lining and valves, abscesses and other soft-tissue infection and liver or kidney disease. Pulmonary complications, including pneumonia and tuberculosis, may result from the user's poor health condition, as well as from heroin's depressing effects on respiration.

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**Additional Dangers:**

- Tolerance
- Dependence and addiction
- HIV or other diseases through the sharing of needles
- Possibility of using heroin that has been “cut” (meaning that another chemical or substance has been added to it) with a poison or other toxic compound

Heroin may have been “cut” with additives that do not readily dissolve, resulting in clogging of the blood vessels that lead to the lungs, liver, kidneys, or brain. This can cause infection or even death of small patches of cells in vital organs.

Withdrawal (which may occur even a few hours after taking it) produces craving, restlessness, muscle and bone pain, insomnia, diarrhea and vomiting, cold flashes with goose bumps (“cold turkey”), kicking movements (“kicking the habit”), and other symptoms. Sudden withdrawal by heavy users is occasionally fatal, although heroin withdrawal is generally considered less dangerous than alcohol or barbiturate withdrawal.

**Sources:**

National Institute on Drug Abuse. *Heroin*. NIDA InfoFacts, (2008)

National Institute on Drug Abuse. *Heroin Abuse and Addiction*. Research Report Series, (n.d.).

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## LSD (Acid) (lysergic acid diethylamide)

Common street names: acid & blotter



### What is LSD?

LSD is a clear or white water-soluble compound and is one of the major drugs in the “hallucinogen” class of drugs. It is one of the strongest known mood-changing drugs. (Hallucinogens cause significant distortions in the user’s perception of reality. They disrupt the communication between the nerve cell and the neurotransmitter *serotonin*.)

### Brief history:

LSD was discovered in 1938 and is manufactured from lysergic acid, which is found in a fungus that grows on rye and other grains.

### How it is used:

LSD is sometimes sold in tablets or in thin squares of gelatin called “window panes.” The most common form, “blotter acid,” is made by dissolving LSD and using the solution to soak large sheets of perforated paper which are then separated into small individual doses.

### How it affects the body:

Hallucinogens work by disrupting the interaction of nerves and the neurotransmitter *serotonin*, a chemical in the brain involved in the control of mood, hunger, body temperature, sexual behavior, muscle control, and sensory perception.

### Under the influence of hallucinogens, people:

- See, hear, and feel things that seem real but aren’t.
- Can have intense emotional mood swings.

### Consequences of use:

The effects of LSD are unpredictable.

- Reactions depend on the amount used, the user’s mood and expectations and the environment where the drug is used.
- Physical effects include dilated pupils, high body temperature, increased heart rate and blood pressure, sweating, loss of appetite, sleeplessness, dry mouth, and tremors.
- In large doses, LSD can produce delusions and visual hallucinations.
- Users can experience rapid swings in emotion.
- Sensations may seem to “cross over,” giving the user the feeling of hearing colors and seeing sounds. These changes can be frightening and may cause panic.

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- Users can experience terrifying thoughts and feelings, and fears of insanity, death, and despair while using LSD. Some fatal accidents have occurred during states of LSD intoxication.
  - Users can experience “flashbacks” in which they have a recurrence of certain aspects of earlier experiences with LSD. These can occur suddenly and without warning a few days or even more than a year after last LSD use and in some people, can linger and cause disruption of the ability to function normally in social or work settings.

**Sources:**

National Institute on Drug Abuse. *Hallucinogens: LSD, Peyote, Psilocybin and PCP*. NIDA InfoFacts, (2008)

National Institute on Drug Abuse. *LSD*. NIDA InfoFacts, (2007)

National Institute on Drug Abuse. *Hallucinogens and Dissociative Drugs*. Research Report Series, (n.d.).

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## MUSHROOMS (Psilocybin)

Common street names: Shrooms



### What are mushrooms?

- Mushrooms that contain psilocybin, a chemical with hallucinogenic (causing hallucinations) properties similar to those of LSD. Hallucinations are distortions in a person's perception of reality.
- The amount of psilocybin in mushrooms is unpredictable.
- Mushrooms containing psilocybin are native to tropical and subtropical regions of South America, Mexico, and the United States.

### How they are used:

Mushrooms containing psilocybin may be fresh or dried and are usually eaten. The active ingredients are not inactivated by cooking or freezing preparations and so mushrooms are sometimes brewed as a tea or added to other foods to mask their bitter taste.

### How they affect the body:

Like LSD and other hallucinogenic drugs, psilocybin from mushrooms causes its effects by disrupting the interaction of nerve cells and the neurotransmitter serotonin. The active ingredients in mushrooms have LSD-like properties and affect the body's autonomic functions, motor reflexes, behavior and perceptions. They can produce hallucinations, an altered sense of time and the inability to distinguish fantasy from reality. Panic reactions can occur as well as psychosis especially with large doses.

**Low doses:** Effects occur within 20 minutes of ingestion and can last approximately 6 hours.

**Higher doses:** Hallucinogenic experiences such as intensifying colors, visual hallucinations. Physical responses can include excessive pupil dilation, nausea, vomiting, drowsiness, increased heart rate and blood pressure, anxiety, paranoia, delusions, headaches, and insomnia. Users are also at risk for poisoning if they mistakenly ingest one of the many toxic mushrooms.

**Long-term use:** flashbacks, impaired memory, and psychiatric illness

### THE NOT-SO-GROOVY EFFECTS:

Mushroom use has been described by some users as psychologically confusing and frightening.

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**Consequences of use:**

- **Misidentification.** Some mushrooms are poisonous and cause stomach pains, vomiting, diarrhea, and even death if ingested.
- **Impaired judgment.** Everyday activities such as driving, walking, or even making important (and sometimes life-dependent) decisions become more hazardous.
- **Other adverse health effects:** muscle weakness, excessive pupil dilation, nausea and drowsiness
- **“Bad trips”** are sometimes experienced which can include confusion, anxiety and panic.
- **Flashbacks** (sudden memories of panic or anxiety during a trip) can occur days, weeks or even months after use.

Like other drugs of abuse, **psilocybin mushrooms are illegal.**

**Sources:**

National Institute on Drug Abuse. *Hallucinogens: LSD, Peyote, Psilocybin and PCP*. NIDA InfoFacts, (2008)

National Institute on Drug Abuse. *Hallucinogens and Dissociative Drugs*. Research Report Series, (n.d.).

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## Club Drug: Ketamine

Common street names: K, Special K, Vitamin K, cat Valium



### What is ketamine?

- An anesthetic used in both human and veterinary medicine, but most often in veterinary medicine
- A dissociative drug like LSD, meaning that it distorts sights and sounds and creates feelings of detachment or dissociation from one's self and one's surroundings.
- Odorless and tasteless, it can be added to beverages undetected and so ketamine is sometimes used in the commission of sexual assaults.

### Brief history:

Ketamine was developed in 1963 and is currently used as an anesthetic for humans and animals. Much of the ketamine sold on the street has been diverted from veterinary use.

### How it is used:

While its legitimate use is as an injectable liquid, in illegal use, it is usually evaporated to form a powder that is then snorted or formed into pills.

### How they affect the body:

Ketamine is similar in structure and effects to PCP but is less potent and its effects do not last as long. It has pain-killing effects but also alters perception. People who use it commonly say they feel detached from themselves and others around them. Some report experiencing a frightening feeling of nearly complete detachment that they compared to a near-death experience.

- Low doses: impairs attention, learning ability and memory; user feels euphoric and experience rushes or waves of energy
- Higher doses: user may experience a dream-like state and hallucinations, similar to LSD. User may also experience numbness, often in the limbs, as well as strange muscle movements. High dosage can also cause delirium, amnesia or potentially fatal respiratory problems.

### Consequences of long-term ketamine use:

Flashbacks, memory, attention and vision impairment may result from frequent and prolonged use; tolerance; psychological dependence, psychosis and gradual loss of contact with the real world.

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**Sources:**

National Institute on Drug Abuse. *Hallucinogens: LSD, Peyote, Psilocybin and PCP*. NIDA InfoFacts, (2008)

National Institute on Drug Abuse. *Club Drugs (GHB, Ketamine and Rohypnol)*. NIDA Info Facts, (2008)

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## Club Drugs: GHB (Gamma Hydroxybutyrate) & Rohypnol

Common street names for GHB: liquid ecstasy, grievous bodily harm, Georgia home boy "G", soap



Common street names for Rohypnol: rophies, roofies, roach, rope

### What is GHB?

- GHB is a central nervous system (CNS) depressant that was available over-the-counter in the 1980s and early 1990s. In 2002, it was approved by the Food and Drug Administration (FDA) for highly regulated use in the treatment of narcolepsy, a sleep disorder.
- GHB, like Rohypnol, has been used to facilitate sexual assault. Both drugs are usually colorless, tasteless, and odorless and can be added to beverages and ingested without the victim knowing. When mixed with alcohol, Rohypnol can incapacitate victims and prevent them from resisting assault.
- GHB also has anabolic or muscle-building effects.

### What is Rohypnol?

Rohypnol is a benzodiazepine similar to Valium or Xanax but is not approved for use in the United States. Its importation is illegal. Like GHB, it is primarily a central nervous system depressant. Its use has been primarily associated with sexual assault.

### How they're used:

- GHB is abused for its euphoric, sedative and body-building effects. During the 1980s until 1992, GHB was sold over-the-counter in health food stores mainly to body-builders who used it to aid fat reduction and muscle building.
- Rohypnol is usually taken orally but can also be ground up and snorted.
- The effects may not peak for up to two hours, and many overdoses have occurred from people not waiting long enough before taking more.
- Can be injected, swallowed, or inhaled

### How it affects the body:

- **Physical:** Euphoria, sedation, hallucinations, deep sleep, impaired judgment, loss of inhibition
- **More Severe:** Slowed breathing/heart rate, respiratory depression, coma, seizures, and death
- **Lower doses:** GHB has a euphoric effect similar to alcohol and can make the user feel relaxed, happy and sociable.

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- **Higher doses:** dizziness, sleepiness; can sometimes cause vomiting, muscle spasms, and loss of consciousness. GHB's sedative effects can result in sleep, coma or death.

**Consequences of use:**

- Since both GHB and Rohypnol are CNS depressants, mixing them with other drugs, especially other depressants like alcohol, can be dangerous and possibly lethal. Combining GHB with alcohol can cause nausea and difficulty breathing.
- GHB may cause withdrawal effects including insomnia, anxiety, tremors, and sweating.
- Rohypnol can produce a form of amnesia in which individuals may not remember things that happened while they were under the influence of the drug.
- Overdoses will always cause loss of consciousness (temporary coma) and will slow down breathing. Sometimes, particularly if mixed with alcohol, GHB can slow breathing down to a dangerously low rate, which has caused a number of deaths.
- Coma and seizures can occur with GHB use. When combined with methamphetamine, there appears to be an increased risk of seizure.

**Sources:**

National Institute on Drug Abuse. *Club Drugs (GHB, Ketamine and Rohypnol)*. NIDA InfoFacts, (2008)

National Institute on Drug Abuse. *Rohypnol and GHB*. NIDA InfoFacts, (2007)



