

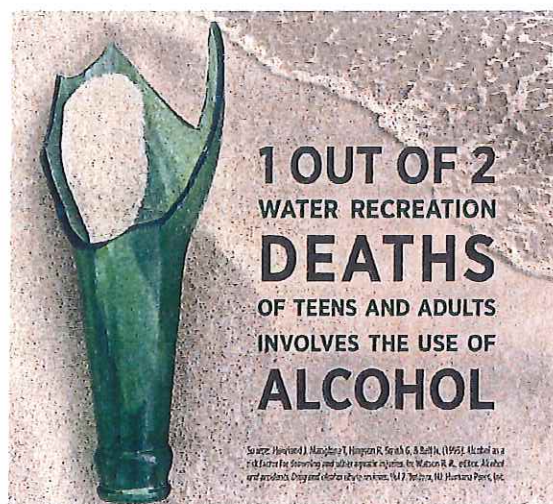


Risky Drinking Can Put a Chill on Your Summer Fun

Summer is a wonderful time for outdoor activities with family and friends. For many people, a day at the beach, on the boat, or at a backyard barbecue will include drinking alcoholic beverages. But excessive drinking and summer activities don't mix. Drinking impairs both physical and mental abilities and it also decreases inhibitions—which can lead to tragic consequences on the water, on the road, and in the great outdoors. In fact, research shows that half of all water recreation deaths of teens and adults involve the use of alcohol.

Swimmers Can Get In Over Their Heads

Alcohol impairs judgment and increases risk-taking, a dangerous combination for swimmers. Even experienced swimmers may venture out farther than they should and not be able to make it back to shore, or they may not notice how chilled they're getting and develop hypothermia. Surfers could become over-confident and try to ride a wave beyond their abilities. Even around a pool, too much alcohol can have deadly consequences. Inebriated divers may collide with the diving board, or dive where the water is too shallow.



Boaters Can Lose Their Bearings

According to research funded by the National Institute on Alcohol Abuse and Alcoholism, alcohol may be involved in 60 percent of boating fatalities, including falling overboard. And a boat operator with a blood alcohol concentration (BAC) over 0.1 percent is *16 times* more likely to be killed in a boating accident than an operator with zero BAC. According to the U.S. Coast Guard and the National Association of State Boating Law Administrators, alcohol can impair a boater's judgment, balance, vision, and reaction time. It can also increase fatigue and susceptibility to the effects of cold-water immersion. And if problems arise, intoxicated boaters are ill equipped to find solutions. For passengers, intoxication can lead to slips on deck, falls overboard, or accidents at the dock.

Drivers Can Go Off Course

The summer holidays are some of the most dangerous times of the year to be on the road. When on vacation, drivers may be traveling an unfamiliar route or hauling a boat or camper, with the distraction



of pets and children in the car. Adding alcohol to the mix puts the lives of the driver and everyone in the car, as well as other people on the road, at risk.

Stay Hydrated And Stay Healthy

Whether you're on the road or in the great outdoors, heat plus alcohol can equal trouble. Hot summer days cause fluid loss through perspiration, while alcohol causes fluid loss through increased urination. Together, they can quickly lead to dehydration or heat stroke.

But this doesn't have to happen. At parties, make at least every other drink a nonalcoholic one. If you're the host, be sure to provide plenty of cold, refreshing nonalcoholic drinks to keep your guests well hydrated. If you know you'll be driving, stay away from alcohol. And remember, there's no shame in taking a cab or sleeping on a friend's couch if you feel at all unsure if you should be driving.

Summer Will End, But Consequences Can Endure

You can have fun in the sun and still be safe. Avoiding beverages that cause mental and physical impairment while piloting a boat, driving a car, exploring the wilderness, and swimming or surfing is a good place to start. Be smart this summer—think before you drink, and make sure that you and your loved ones will be around to enjoy many summers to come.

For more information on preventing problems with alcohol this summer, and tips on cutting back, visit: <http://www.rethinkingdrinking.niaaa.nih.gov>

Myths and Facts

Myth: If you drink just beer or wine, you'll be fine.

Fact: It doesn't matter what type of alcohol you chose to consume—a drink is a drink. Your blood alcohol content (also known as BAC, the percentage of alcohol in your blood) is what determines how drunk you are.

Myth: Drink coffee. Caffeine will sober you up.

Fact: Caffeine may help with drowsiness, but not with the effects of alcohol on decision-making or coordination. The body needs time to metabolize (break down) alcohol and then to return to normal. There are no quick ways to sober up—only time will help.

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Using Alcohol to Relieve Your Pain: What Are the Risks?

People have used alcohol to relieve pain since ancient times. Laboratory studies confirm that alcohol does indeed reduce pain in humans and in animals. Moreover, recent research suggests that as many as 28 percent of people experiencing chronic pain turn to alcohol to alleviate their suffering. Despite this, using alcohol to alleviate pain places people at risk for a number of harmful health consequences.

What Are the Risks?

Mixing Alcohol and Pain Medicines Can Be Harmful

- » Mixing alcohol and acetaminophen can cause acute liver failure
- » Mixing alcohol and aspirin increases risk for gastric bleeding
- » Alcohol increases analgesic, reinforcing, and sedative effects of opiates, elevating risk for combined misuse of alcohol and opiates as well as overdose.

If you're taking medications to manage your pain, talk to your doctor or pharmacist about any reactions that may result from mixing them with alcohol.

Analgesic Doses of Alcohol Exceed Moderate Drinking Guidelines

- » The greatest pain-reducing effects occur when alcohol is administered at doses exceeding guidelines for moderate daily alcohol use.*
- » Tolerance develops to alcohol's analgesic effects so that it takes more alcohol to produce the same effects. Increasing alcohol use to stay ahead of tolerance can lead to other problems, including the development of alcohol dependence.

**According to the Dietary Guidelines for Americans, drinking in moderation is defined as having no more than 1 drink per day for women and no more than 2 drinks per day for men.*

Chronic Alcohol Drinking Makes Pain Worse

- » Withdrawal from chronic alcohol use often increases pain sensitivity which could motivate some people to continue drinking or even increase their drinking to reverse withdrawal-related increases in pain.
- » Prolonged, excessive alcohol exposure generates a painful small fiber peripheral neuropathy, the most common neurologic complication associated with alcoholism.

If you use alcohol to relieve your pain, it is important to learn about possible adverse health effects. Ask your health care provider if any alcohol use is safe for you.

Updated July 2013

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Alcohol Abuse

Drinking beverages containing alcohol has been prevalent in many societies throughout history. Today, as in the past, most people engage in some drinking, and most do so without serious consequences. Some people's drinking, however, is not only excessive, but is associated with serious consequences for themselves and for others. The drinking of a *small* percentage of individuals is therefore responsible for a *large* percentage of alcohol problems.

What Is Alcohol?

Alcohol (ethanol) is a *psychoactive drug*—its principal effect on the brain is as a central nervous system depressant. Although people can drink large quantities of alcohol in short periods of time, alcohol is metabolized and eliminated (used and released) from the body at a slow and fixed rate: about one drink per hour. The unmetabolized alcohol circulates in the bloodstream and is known as the blood alcohol level. Not all types of alcoholic beverages contain the same amount of alcohol. For example, 12 ounces of regular beer contains about the same amount of alcohol as 4 ounces of table wine, which contains about the same amount as 1 ounce of 86-proof liquor.

What Does Alcohol Do?

The effects of alcohol depend on the amount consumed, the period of time over which the alcohol is consumed, the past experience of the user, and the circumstances in which the drinking occurs (affected by such variables as the drinker's mood or the presence of others). Used in moderation, many people enjoy the effects of alcohol. However, as the blood alcohol level increases, the effects become increasingly negative and normal functioning is impaired. Possible effects include slurred speech or blackouts (time-limited periods of amnesia).

Repeated heavy drinking over extended time periods can have long-term negative effects. The chronic effects of heavy drinking can range from mild medical problems such as stomach inflammation to serious ones such as cirrhosis or brain damage. When heavy drinking is combined with cigarette smoking the risk of serious disease increases. Psychosocial consequences of heavy drinking can range from mild consequences such as missed work to serious ones such as divorce or job loss.

Tolerance and *dependence* are two features that characterize alcohol problems.

Tolerance means that with repeated alcohol use, the drinker needs to consume more alcohol to achieve the same effect previously produced by smaller amounts. Individuals who have developed substantial tolerance can sometimes function with few observable signs of intoxication, despite having consumed a large amount of alcohol.

Regular heavy drinkers can easily become psychologically and/or physically dependent on alcohol. *Psychological dependence* is best characterized as a compulsive need for alcohol, especially when the person consumes alcohol in the face of obvious unfavorable consequences. Psychological dependence may be separate from physical dependence, although the two forms often occur together. *Physical dependence* occurs when the body has adapted to the presence of alcohol. To stop drinking at this point can bring on an alcohol withdrawal syndrome, which can be severe (i.e., hallucinations, seizures, and delirium tremens).

Who Is at Risk and Why Do People Drink Excessively?

Is there a genetic predisposition? Although some evidence suggests that there is a genetic basis or vulnerability for alcohol problems, little is known about what specifically might be inherited. There is some convincing evidence that males with alcoholic fathers are at increased risk for developing alcohol problems; this is especially true if the pattern

goes back to the father's father. However, a major limitation of this finding is that such individuals can account for only a small percentage of those with alcohol problems. Since the majority of alcohol abusers do not have a family history of alcohol problems, environmental factors also contribute significantly to the development of alcohol problems.

Since current evidence strongly suggests that alcohol problems are neither solely biologically nor solely environmentally determined a biopsychosocial approach seems necessary for an adequate understanding of the development of alcohol problems. In summary, while some drinkers are at greater risk than others anyone can develop alcohol problems.

Is alcohol abuse a progressive disorder? Present evidence suggests that alcohol abusers' drinking careers most often involve periods of drinking problems of varying severity, separated by periods of abstinence of drinking without problems. Only a minority experiences a progressive, lock step worsening of problems.

If excessive drinking causes so many long-term consequences, why do people continue to drink heavily? People drink heavily for a variety of reasons. Although it has long been thought that problem drinking is primarily in response to negative emotional states (such as anxiety or depression), interpersonal problems, or social pressure, some recent research suggests that many problem drinkers report drinking primarily when in a positive mood in order to feel even better.

Whether someone drinks to get over "feeling bad" or to enhance good feelings, the rewards for drinking usually occur sooner than do the negative effects. This short-term rewarding effect is thought to be one reason why people are willing to risk the long-term negative consequences of heavy drinking.

What Can Be Done?

Various treatment approaches and goals have been used in treating alcohol abusers (including anti-alcohol drugs, individual and group therapy, Alcoholics Anonymous, and behavior therapy). However, most treatments have shown only limited success. Even the topic of treatment goals is controversial. For some time, abstinence—no drinking at all—was thought to be the only appropriate goal. Research conducted over the past two decades suggests, however, that reduced drinking is an appropriate goal for some alcohol abusers, especially those whose problem is not severe. Some recent evidence also indicates that some alcohol abusers recover without formal help or treatment. Behavioral research has contributed significantly to major changes that have taken place in the alcohol field over the past few decades, most notably in the areas of assessment and treatment strategies.

Behavioral treatments start with a detailed assessment of the person's drinking and related behavior. This information is used to develop an individualized treatment plan to promote positive and beneficial change in the target behavior as well as in the related behaviors.

Common guiding principles suggest that treatment (a) should be *individualized*; (b) should be *least restrictive* (requiring the least total life change while still achieving goals and maintaining accomplishments); (c) should be *designed to include components that enhance commitment to change*, allowing clients to guide their own treatment as much as possible; and (d) should *address issues related to relapse*, since relapse rates are very high following treatment.

Behavioral treatments have tended to vary with the severity of the person's alcohol problem. For example, for severely dependent alcoholic inpatients, abstinence-oriented social-skills training treatments have been used with some success, while brief, outpatient self-management treatments incorporating moderation goals have shown

more success with problem drinkers. In recent years, behavioral approaches have focused substantially on persons whose drinking problems are not extremely serious (i.e., problem drinkers—the majority of those with drinking problems).

How long will treatment take? Treatment length varies, depending of the client's needs. For some this might mean a few sessions; for others it might involve a longer or more intensive process. It is recommended that treatment start with the minimal intervention suitable for the severity of the problem, with additional techniques implemented only if needed.

What Is Cognitive Behavior Therapy?

Behavior Therapy and Cognitive Behavior Therapy are types of treatment that are based firmly on research findings. These approaches aid people in achieving specific changes or goals.

Changes or Goals might involve:

- a way of acting - like smoking less or being more outgoing;
- a way of feeling - like helping a person be less scared, less depressed, or less anxious;
- a way of thinking - like learning to problem-solve or get rid of self-defeating thoughts;
- a way of dealing with physical or medical problems - like lessening back pain or helping a person stick to a doctor's suggestions; or
- a way of adjusting - like training developmentally disabled people to care for themselves or hold a job.

Behavior Therapists and Cognitive Behavior Therapists usually focus more on the current situation and its solution, rather than the past. They concentrate on a person's views and beliefs about their life, not on personality traits. Behavior Therapists and Cognitive Behavior Therapists treat individuals, parents, children, couples, and families. Replacing ways of living that do not work well, with ways of living that work, and giving people more control over their lives are common goals of behavior and cognitive behavior therapy.

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Alcohol Overdose: The Dangers of Drinking Too Much

Celebrating at parties, cheering a favorite sports team, and simply enjoying a break from work are common activities throughout the year. For some people, these occasions also may include drinking—even drinking to excess. And the results can be deadly.

Although many people enjoy moderate drinking, defined as 1 drink per day for women or 2 for men, drinking too much can lead to an overdose. An overdose of alcohol occurs when a person has a blood alcohol content (or BAC) sufficient to produce impairments that increase the risk of harm. Overdoses can range in severity, from problems with balance and slurred speech to coma or even death. What tips the balance from drinking that has pleasant effects to drinking that can cause harm varies among individuals. Age, drinking experience, gender, the amount of food eaten, even ethnicity all can influence how much is too much.





Underage drinkers may be at particular risk for alcohol overdose. Research shows that people under age 20 typically drink about 5 drinks at one time. Drinking such a large quantity of alcohol can overwhelm the body's ability to break down and clear alcohol from the bloodstream. This leads to rapid increases in BAC and significantly impairs brain function.

As BAC increases, so do alcohol's effects—as well as the risk for harm. Even small increases in BAC can decrease coordination, make a person feel sick, and cloud judgment. This can lead to injury from falls or car crashes, leave one vulnerable to sexual assault or other acts of

Identifying Alcohol Poisoning

Critical Signs and Symptoms of Alcohol Poisoning

- Mental confusion, stupor, coma, or inability to wake up
- Vomiting
- Seizures
- Slow breathing (fewer than 8 breaths per minute)
- Irregular breathing (10 seconds or more between breaths)
- Hypothermia (low body temperature), bluish skin color, paleness

12 fl oz of regular beer	=	8-9 fl oz of malt liquor (shown in a 12 oz glass)	=	5 fl oz of table wine	=	1.5 fl oz shot of 80-proof spirits ("hard liquor"—whiskey, gin, rum, vodka, tequila, etc.)
						
about 5% alcohol		about 7% alcohol		about 12% alcohol		about 40% alcohol

The percent of "pure" alcohol, expressed here as alcohol by volume (alc/vol), varies by beverage.



violence, and increase the risk for unprotected or unintended sex. When BACs go even higher amnesia (or blackouts) can occur.

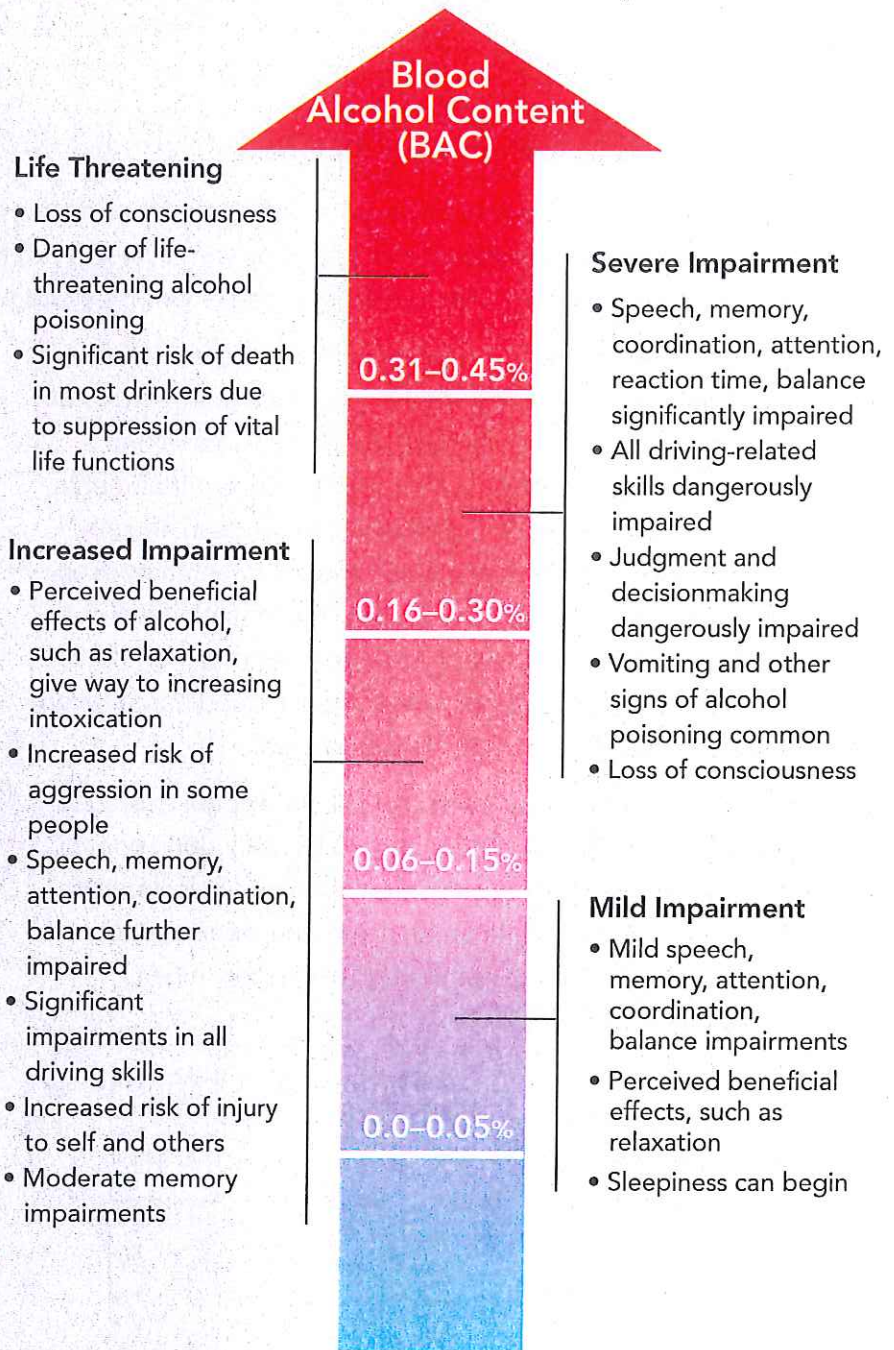
Continuing to drink despite clear signs of significant impairments can result in a potentially deadly type of overdose called alcohol poisoning. (See the table for tips on identifying alcohol poisoning.)

Alcohol poisoning occurs when there is so much alcohol in the bloodstream that areas of the brain controlling basic life support functions—such as breathing, heart rate, and temperature control—begin to shut down. Symptoms of alcohol poisoning include confusion; difficulty remaining conscious; vomiting; seizures; trouble with breathing; slow heart rate; clammy skin; dulled responses, such as no gag reflex (which prevents choking); and extremely low body temperature.

BAC can continue to rise even when a person is unconscious. Alcohol in the stomach and intestine continues to enter the bloodstream and circulate throughout the body.

It is dangerous to assume that an unconscious person will be fine by sleeping it off. Alcohol acts as a depressant, hindering signals in the brain that control automatic responses such as the gag reflex.

As BAC Increases, So Does Impairment



Alcohol also can irritate the stomach, causing vomiting. With no gag reflex, a person who drinks to the point of passing out is in danger of choking on vomit, which, in turn, could lead to death by asphyxiation. Even if the drinker survives, an alcohol overdose can lead to long-lasting brain damage.

If you suspect someone has alcohol poisoning, get medical help immediately. Cold showers, hot coffee, or walking will not reverse the effects of alcohol overdose and could actually make things worse.

At the hospital, medical staff will manage any breathing problems, administer fluids to combat dehydration and low blood sugar, and flush the drinker's stomach to help clear the body of toxins.

The best way to avoid an alcohol overdose is to drink responsibly if you choose to drink.

According to the Dietary Guidelines for Americans, 2010 (Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services), moderate alcohol consumption is defined as up to 1 drink per day for women and up to 2 drinks per day for men. Know that even if you drink within these limits, you could have problems with alcohol if you drink too quickly, have health conditions, or take medications. If you are pregnant or may become pregnant, you should not drink alcohol.

Heavy or at-risk drinking for women is the consumption of more than 3 drinks on any day or more than 7 per week, and for men it is more than 4 drinks on any day or more than 14 per week. This pattern of drinking too much, too often, is associated with an increased risk for alcohol use disorders. Binge drinking for women is having 4 or more drinks within 2 hours; for men, it is 5 or more drinks within 2 hours. This dangerous pattern of drinking typically results in a BAC of .08% for the average adult and increases the risk of immediate adverse consequences.

What Should I Do If I Suspect Someone Has Alcohol Poisoning?

Know the danger signals
Do not wait for someone to have all the symptoms
Be aware that a person who has passed out may die
If you suspect an alcohol overdose, call 911 for help

What Can Happen to Someone With Alcohol Poisoning That Goes Untreated?

Choking on his or her own vomit
Breathing that slows, becomes irregular, or stops
Heart that beats irregularly or stops
Hypothermia (low body temperature)
Hypoglycemia (too little blood sugar), which leads to seizures
Untreated severe dehydration from vomiting, which can cause seizures, permanent brain damage, and death

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Women and Alcohol

Women’s drinking patterns are different from men’s—especially when it comes to the type of beverage, amounts, and frequency. Women’s bodies also react differently to alcohol than men’s bodies. As a result, women face particular health risks and realities.

Women should be aware of the health risks associated with drinking alcohol, especially because most women drink at least occasionally, and many women drink a lot.

Why Do Women Face Higher Risk?

Research shows that women start to have alcohol-related problems at lower drinking levels than men do. One reason is that, on average, women weigh less than men. In addition, alcohol disperses in body water, and pound for pound, women have less water in their bodies than men do. So after a man and woman of the same weight drink the same amount of alcohol, the woman’s blood alcohol concentration will tend to be higher, putting her at greater risk for harm. Other biological differences, including hormones, may contribute as well.



What Are the Health Risks?

Liver Damage:

Women who drink are more likely to develop alcoholic hepatitis (liver inflammation) than men who drink the same amount of alcohol. Alcoholic hepatitis can lead to cirrhosis.

Heart Disease:

Chronic heavy drinking is a leading cause of heart disease. Among heavy drinkers, women are more susceptible to alcohol-related heart disease than men, even though women drink less alcohol over a lifetime than men.

How Much Is Too Much?

A standard drink is roughly 14 grams of pure alcohol, which is found in:

- 12 ounces of beer
- 5 ounces of wine
- 1.5 ounces of distilled spirits

The USDA defines moderate drinking as:

- Up to 1 drink per day for women
- Up to 2 drinks per day for men



UNDERSTANDING YOUR FRIEND OR RELATIVE'S ALCOHOL OR DRUG PROBLEM

If someone you know has an alcohol or drug problem, whether it is your spouse, another family member, a friend, or an employee, your support can be very important in helping that person change. This brochure is intended to help you better understand your friend or relative's alcohol or drug problem.

Change Takes Time

Alcohol and drug problems do not develop overnight. They also do not usually disappear overnight. For some people, it may be smooth sailing from the day they decide to change. For most people, change takes time.

Resolving an alcohol or drug problem can be like hiking up a bumpy hill. The goal is to get to the top. Most make steady progress. Some hit dips in the road. While these bumps may slow a person's progress, they do not have to stop it. In some ways, dealing with a drug or alcohol problem is like dieting. If people go off their diet for a day or two, it could affect them in one of two ways:

They could consider their entire attempt a failure, give up, and return to their old eating patterns. People who do this will not reach their goal.

They could view it as a temporary slip that sets them back slightly. They then can press on, determined to lose weight. People who do this are likely to have a better chance of reaching their goal.

The same kind of thinking can apply to a person's alcohol or drug problem. It would be great if the person never abused drugs or alcohol again, but slips do occur. How you react to your friend or relative's slip is important. Sometimes a slip can provide important lessons that can help prevent further slips. It is important to take a long-term view of recovery and accept a slip for what it is — one slip, and nothing more!

Understanding the Problem

We sometimes do things that are not good for us. There are usually reasons why we behave in such ways. Alcohol and drug use is no exception. The first step in trying to solve an alcohol or drug problem is to identify the reasons that led to the person's substance use. If people understand why and when they use alcohol or drugs, they will be better able to deal with their alcohol or drug problem.

Conditions That Trigger Alcohol or Drug Use

Triggers are factors that tend to lead to a person's alcohol or drug use. They do not necessarily cause a person's alcohol or drug use. Many things can act as triggers. They may be pleasant or unpleasant feelings or just normal situations. Here are some examples of possible triggers:

Unexpected Situations: a flight attendant offers free alcoholic beverages or a party where a friend offers marijuana.

Daily Routines: the weekly Friday night gathering after work, the Sunday tailgate party, or a holiday dinner.

Situations One Seeks: dropping into the local bar or going to a party where drugs are available.

Emotional Situations (positive or negative): an argument, meeting an old friend, being bored, or celebrating.

Stressful Personal Problems: financial problems, a job interview, or a court appearance.

Consequences of Alcohol and Drug Use

When people use alcohol or drugs, they are often seeking immediate "payoffs." If people get a payoff from doing something, they will tend to do it again. Payoffs can include feeling more relaxed, feeling more comfortable with other people, or having a good time.

Unfortunately, alcohol and drug use can result in family, health, or legal problems. Although these problems can be serious, they do not usually happen overnight.

When people think about the consequences of their alcohol or drug use, they need to consider results that may have already developed or may develop in the future. For example, a person who drinks and drives might get where he or she is going. However, there is always a risk of an accident or being arrested.

Finding Options

Although the person who drinks or takes drugs is in the end responsible for his or her own actions, sometimes others can help. When thinking about helping someone deal with an alcohol or drug problem, it is important to consider the possible results of his or her attempts to control the substance use. Below are some possible options and possible results with respect to using alcohol or drugs.

Avoiding alcohol and drugs, and acting positively.

This is a hard course to follow. It is the most beneficial option. For many people abstinence is the safest alternative.

Avoiding alcohol and drugs, but acting in ways that are harmful.

Although people may not use alcohol or drugs during strong triggers, they may act in ways that result in equally harmful consequences. For example, instead of using alcohol or drugs, a person may become violent and hurt someone. It is important to address these behaviors as well as the substance use.

Using alcohol in moderate amounts.

For some people, using alcohol in moderate amounts may be a reasonable option. This may include drinking a glass of wine with dinner once or twice a week. For others, this may not work. The important thing to remember is that avoiding the harmful effects of drinking means avoiding alcohol in situations that have led to problems in the past and to drink at low-risk levels. It is important for people to think about the risks when deciding if moderate alcohol use is a reasonable option.

Using alcohol and/or drugs to excess.

Although harmful, this option is probably familiar to you. It is the one person you are concerned about who has used often.

Choosing the Best Option

Once people choose the best option for avoiding alcohol or drug use problems, the next step is to develop a plan to achieve that option. For example, if worries about money trigger alcohol or drug use, a good plan could include reducing these worries by paying all bills on time, consolidating debts, avoiding unnecessary purchases, and keeping a financial ledger. Whatever the goal, a plan can help people reach their goal.

In summary, the steps to solving the problem involve:

- Identifying triggers and consequences related to problem alcohol or drug use
- Developing options to drug and alcohol abuse
- Choosing the best option
- Developing plans to accomplish the goals, and
- Putting the plans into effect

Being Supportive

Recovery from an alcohol or drug problem should be viewed from a long-term perspective. Remember that your relative or friend did not develop a drug or alcohol problem overnight. It may take time to resolve. Your support is needed most when a slip occurs. If your friend or relative slips, help them get back on track and move toward their goal. Encourage your friend or relative to use the slip as a learning experience to help for the next time.

You Can Help

Be supportive, especially when the person first decides to deal with his or her problem.

Solving an alcohol or drug problem is not easy. Let the person know that you care about his or her progress.

Help the person identify and deal with high-risk situations (a party, for example) where a person is at risk of using drugs or drinking too much.

Is Treatment Necessary?

People address their alcohol or drug problems in many different ways. Some go to specialized alcohol and drug programs. Some get advice from their doctors. Others use self-help groups. In addition, like smokers, many people with alcohol and drug problems have successfully resolved their problems on their own. Support from friends and relatives like you can help people resolve an alcohol or drug problem.

For people who decide they want to quit abusing drugs and/or alcohol but cannot do it alone, there are many types of treatment available.

What Is Cognitive Behavior Therapy?

Behavior Therapy and Cognitive Behavior Therapy are types of treatment that are based firmly on research findings. These approaches aid people in achieving specific changes or goals.

Changes or Goals might involve:

- a way of acting - like smoking less or being more outgoing;
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- a way of thinking - like learning to problem-solve or get rid of self-defeating thoughts;
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Drug Use and Abuse

DIFFERENT DRUGS HAVE DIFFERENT EFFECTS

When we speak of drugs, we mean those substances that affect our brain and, thus, our behavior. Different drugs have different types of effects. The major classes of psychoactive drugs are depressants, amphetamines, hallucinogens, inhalants, opiates, and cannabis. Below are brief descriptions of these drugs and their effects.

- **Depressants**, such as barbiturates and benzodiazepines, slow down the brain and central nervous system and include alcohol, tranquilizers (Valium[®], Xanax[®]), and sedatives (e.g., Dalmane[®], Amytal[®], and Seconal[®]). These drugs, even when prescribed, can cause a strong physical and psychological dependence.
- **Stimulants**, such as crack, cocaine, methamphetamine, and diet pills, speed up the central nervous system. Rapid psychological and physical dependence to amphetamines can occur, particularly if these drugs are injected or smoked.
- **Hallucinogens** produce distortions of perception (for example, seeing or hearing things that are not there) and affect insights and judgment. Common hallucinogens include LSD, PCP, MDA, and mescaline. Although physical dependence is rare, frequent use can lead to psychological dependence.
- **Inhalants** give users an immediate "high" or "buzz." Inhalants such as glue, solvents, aerosols, and volatile nitrates were never meant to be used as drugs, and, when inhaled, their long-term use often results in very serious health problems, including brain damage. Frequent use of inhalants can cause psychological dependence.
- **Opiates** are very strong painkillers and include heroin, methadone, morphine, Demerol, percodan, and Dilandid. Although some opiates are prescribed for short-term medical use, abusers seek a different effect: highs and relaxed feelings. People can become physically and psychologically addicted to opiates.
- **Cannabis**, the most commonly used illegal mood-altering drug in North America, includes marijuana, hashish, and hash oil. Regular and frequent use of large doses can cause psychological and physical dependence.

WHY DO PEOPLE USE DRUGS?

People have used drugs as far back as recorded history. Drugs' healing and pain-reducing properties are an essential element of medicine

People use drugs for a variety of reasons and their use can be beneficial, neutral, or detrimental. Whether it is to avoid "feeling bad," to enhance good feelings, to be "one of the gang," to cope with stress, or for other reasons, the rewards for drug use usually occur sooner than the negative effects. Feeling good, or "high," is often one reason why people are willing to risk the long-term negative consequences of drug use. Although negative consequences do not always occur, when do they do happen, they can be devastating.

WHAT DO DRUGS DO?

Repeated heavy drug use over extended periods can have long-term negative effects on the user's health, family and social relationships, and psychological well-being. Health problems can range from mild medical problems, such as headaches or stomach inflammation, to serious or fatal medical problems, such as heart failure, liver, or kidney damage, brain damage, or, if needles are shared, AIDS.

Negative social and/or psychological effects can range from mild problems, such as absence from work or school, to serious problems with depression and strained or broken ties with family and friends.

The effects of drugs depend on several things: the amount taken at one time and the route of use (inhaled, injected, etc.); the strength of the drug; past experience and expectations of the user; and circumstances in which drug use occurs (such as the person's mood, whether others are present).

Tolerance to drugs develops with repeated drug use. As tolerance develops, people need more of the drug to achieve the same effects previously produced by smaller amounts. Individuals who develop a substantial tolerance can sometimes use drugs without appearing impaired.

Regular drug use can lead to **psychological dependence** and, for some drugs, **physical dependence**. Psychological dependence is a compulsive need for drugs: People often continue to use drugs even when they are aware of how it can harm them. Psychological dependence is different from physical dependence, although both can occur together.

Not all drugs produce obvious signs of physical dependence. Physical dependence occurs when the body, and particularly the central nervous system, has adapted to the presence of drugs. When people who are physically dependent on a drug stop using drugs, they can experience withdrawal, which is the body's way of readjusting to the drug's absence. The body's reaction is usually the opposite of what it would have been were the drug present. For example, withdrawal from depressant drugs may cause over-stimulation of the nervous system, which can lead to anxiety, tremors (shakes), hallucinations, and seizures. Withdrawal from stimulants can involve serious feelings of depression (a "crash") and can even trigger psychotic symptoms. The length and severity of withdrawal varies with the drug and how long it takes to be eliminated from the body. Sometimes medical treatment is required for drug withdrawal.

WHAT CAN BE DONE?

Because drug problems can be mild to severe, and affect people differently, it is unlikely that a single approach will be right for everyone. Various treatment approaches can help people who are experiencing problems due to their drug use. Many types of therapy, including individual and group therapy, residential therapy programs, pharmacotherapy (for instance, methadone treatment), and various types of **behavior therapy**, are effective. Some people even overcome their drug problems on their own. As with many other serious health problems, there are many pathways to recovery. The ultimate goal, of course, is to eliminate the drug use and related problems. If this is not possible, the goal becomes harm reduction, or reducing the risks of ongoing use.

The success rate of treatment varies and can be affected by various factors such as the person's age, motivation, social and family support, and the presence or absence of friends who are using drugs.

Behavioral research has contributed significantly to major changes that have taken place in the drug field over the past decade, most notably in the areas of assessment and treatment. Behavioral treatments start with a detailed assessment of the behavior. This information is used to develop an individualized treatment plan that is tailored to each person's needs.

Specialized treatment typically starts with motivational enhancement and a detailed assessment of a person's drug use and related behavior. This information is used to develop an individualized treatment plan. Common guiding principles similar to treatments in other health care areas suggest that treatment should (1) be individualized (tailored to each person); (2) be least restrictive (requiring the least total life change, while still achieving goals and maintaining accomplishments); (3) empower the

person to take responsibility for his or her own change; and (4) address issues related to relapse (since relapse rates are very high following treatment).

HOW LONG WILL TREATMENT TAKE?

Treatment length varies. For some this might be a few sessions; for others it might involve a longer or more intensive process. Typically, the more severe the drug use and abuse the more intense the treatment. It is recommended that treatment start with the minimal intervention suitable for the severity of the person's drug problem and that treatment that is more intensive be implemented only if necessary. For example, many people will only need outpatient treatment, while others may require hospitalization followed by outpatient treatment. Some people may need only one course of treatment, while others may have continuing problems with drugs and require several courses of treatment.

What Is Cognitive Behavior Therapy?

Behavior Therapy and Cognitive Behavior Therapy are types of treatment that are based firmly on research findings. These approaches aid people in achieving specific changes or goals.

Changes or Goals might involve:

- a way of acting - like smoking less or being more outgoing;
- a way of feeling - like helping a person be less scared, less depressed, or less anxious;
- a way of thinking - like learning to problem-solve or get rid of self-defeating thoughts;
- a way of dealing with physical or medical problems - like lessening back pain or helping a person stick to a doctor's suggestions; or
- a way of adjusting - like training developmentally disabled people to care for themselves or hold a job.

Behavior Therapists and Cognitive Behavior Therapists usually focus more on the current situation and its solution, rather than the past. They concentrate on a person's views and beliefs about their life, not on personality traits. Behavior Therapists and Cognitive Behavior Therapists treat individuals, parents, children, couples, and families. Replacing ways of living that do not work well, with ways of living that work, and giving people more control over their lives are common goals of behavior and cognitive behavior therapy.

The Association for Behavioral and Cognitive Therapies (ABCT) is an interdisciplinary organization committed to the advancement of a scientific approach to the understanding and amelioration of problems of the human condition. These aims are achieved through the investigation and application of behavioral, cognitive, and other evidence-based principles to assessment, prevention, and treatment.

For more information, please contact ABCT at
305 7th Avenue, 16th Fl., New York, NY 10001
Phone (212) 647-1890

Drug Facts

www.drugabuse.gov

Understanding Drug Abuse and Addiction

Many people do not understand why or how other people become addicted to drugs. It is often mistakenly assumed that drug abusers lack moral principles or willpower and that they could stop using drugs simply by choosing to change their behavior. In reality, drug addiction is a complex disease, and quitting takes more than good intentions or a strong will. In fact, because drugs change the brain in ways that foster compulsive drug abuse, quitting is difficult, even for those who are ready to do so. Through scientific advances, we know more about how drugs work in the brain than ever, and we also know that drug addiction can be successfully treated to help people stop abusing drugs and lead productive lives.

Drug abuse and addiction have negative consequences for individuals and for society. Estimates of the total overall costs of substance abuse in the United States, including productivity and health- and crime-related costs, exceed \$600 billion annually. This includes approximately \$193 billion for illicit drugs,¹ \$193 billion for tobacco,² and \$235 billion for alcohol.³ As staggering as these numbers are, they do not fully describe the breadth of destructive public health and safety implications of drug abuse and addiction, such as family disintegration, loss of em-

ployment, failure in school, domestic violence, and child abuse.

What Is Drug Addiction?

Addiction is a chronic, often relapsing brain disease that causes compulsive drug seeking and use, despite harmful consequences to the addicted individual and to those around him or her. Although the initial decision to take drugs is voluntary for most people, the brain changes that occur over time challenge an addicted person's self control and hamper his or her ability to resist intense impulses to take drugs.

Fortunately, treatments are available to help people counter addiction's powerful disruptive effects. Research shows that combining addiction treatment medications with behavioral therapy is the best way to ensure success for most patients. Treatment approaches that are tailored to each patient's drug abuse patterns and any co-occurring medical, psychiatric, and social problems can lead to sustained recovery and a life without drug abuse.

Similar to other chronic, relapsing diseases, such as diabetes, asthma, or heart disease, drug addiction can be managed successfully. And as with other chronic diseases, it is not uncommon for a per-

son to relapse and begin abusing drugs again. Relapse, however, does not signal treatment failure—rather, it indicates that treatment should be reinstated or adjusted or that an alternative treatment is needed to help the individual regain control and recover.

What Happens to Your Brain When You Take Drugs?

Drugs contain chemicals that tap into the brain's communication system and disrupt the way nerve cells normally send, receive, and process information. There are at least two ways that drugs cause this disruption: (1) by imitating the brain's natural chemical messengers and (2) by overstimulating the "reward circuit" of the brain.

Some drugs (e.g., marijuana and heroin) have a similar structure to chemical messengers called neurotransmitters, which are naturally produced by the brain. This similarity allows the drugs to "fool" the brain's receptors and activate nerve cells to send abnormal messages.

Other drugs, such as cocaine or methamphetamine, can cause the nerve cells to release abnormally large amounts of natural neurotransmitters (mainly dopamine) or to prevent the normal recycling of these brain chemicals, which is needed to shut off the signaling between neurons. The result is a brain awash in dopamine, a neurotransmitter present in brain regions that control movement, emotion, motivation, and feelings of pleasure. The overstimulation of this reward system, which normally responds to natural behaviors linked to survival (eating, spending time with loved ones, etc.), produces euphoric effects in response to psychoactive drugs. This reaction sets in motion a reinforcing pattern that "teaches" people to repeat the rewarding behavior of abusing drugs.

As a person continues to abuse drugs, the brain adapts to the overwhelming surges in dopamine by producing less dopamine or by reducing the number of dopamine receptors in the reward circuit. The result is a lessening of dopamine's impact on the reward circuit, which reduces the abuser's ability to enjoy not only the drugs but also other events in life that previously brought pleasure. This decrease compels the addicted person to keep abusing drugs in an attempt to bring the dopamine function back to normal, but now larger amounts of the drug are required to achieve the same dopamine high—an effect known as tolerance.

Long-term abuse causes changes in other brain chemical systems and circuits as well. Glutamate is a neurotransmitter that influences the reward circuit and the ability to learn. When the optimal concentration of glutamate is altered by drug abuse, the brain attempts to compensate, which can impair cognitive function. Brain imaging studies of drug-addicted individuals show changes in areas of the brain that are critical to judgment, decision making, learning and memory, and behavior control. Together, these changes can drive an abuser to seek out and take drugs compulsively despite adverse, even devastating consequences—that is the nature of addiction.

Why Do Some People Become Addicted While Others Do Not?

No single factor can predict whether a person will become addicted to drugs. Risk for addiction is influenced by a combination of factors that include individual biology, social environment, and age or stage of development. The more risk factors an individual has, the greater the chance that taking drugs can lead to addiction. For example:

- **Biology.** The genes that people are born with—in combination with environmental influences—account for about half of their addiction vulnerability. Additionally, gender, ethnicity, and the presence of other mental disorders may influence risk for drug abuse and addiction.
- **Environment.** A person's environment includes many different influences, from family and friends to socioeconomic status and quality of life in general. Factors such as peer pressure, physical and sexual abuse, stress, and quality of parenting can greatly influence the occurrence of drug abuse and the escalation to addiction in a person's life.
- **Development.** Genetic and environmental factors interact with critical developmental stages in a person's life to affect addiction vulnerability. Although taking drugs at any age can lead to addiction, the earlier that drug use begins, the more likely it will progress to more serious abuse, which poses a special challenge to adolescents. Because areas in their brains that govern decision making, judgment, and self-control are still developing, adolescents may be especially prone to risk-taking behaviors, including trying drugs of abuse.

Prevention Is the Key

Drug addiction is a preventable disease. Results from NIDA-funded research have shown that prevention programs involving families, schools, communities, and the media are effective in reducing drug abuse. Although many events and cultural factors affect drug abuse trends, when youths perceive drug abuse as harmful, they reduce their drug taking. Thus, education and outreach are key in helping youth and the general public understand the risks of drug abuse. Teachers, parents, medical and public health

professionals must keep sending the message that drug addiction can be prevented if one never abuses drugs.

Other Information Sources

For information on understanding drug abuse and addiction, please see our booklet, *[Drugs, Brains, and Behavior—The Science of Addiction](#)*.

For more information on prevention, please visit our [Prevention Research information page](#).

For more information on treatment, please visit our [Treatment Research information page](#).

To find a publicly funded treatment center in your State, please call 1-800-662-HELP or visit www.findtreatment.samhsa.gov.

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Treatment Approaches for Drug Addiction

NOTE: This is a fact sheet covering research findings on effective treatment approaches for drug abuse and addiction. If you are seeking treatment, please call the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Drug and Alcohol Treatment Service at 1-800-662-HELP (4357) for information on hotlines, counseling services, or treatment options in your State. Drug treatment programs by State also may be found online at www.findtreatment.samhsa.gov.

Drug addiction is a complex illness characterized by intense and, at times, uncontrollable drug craving, along with compulsive drug seeking and use that persist even in the face of devastating consequences. While the path to drug addiction begins with the voluntary act of taking drugs, over time a person's ability to choose not to do so becomes compromised, and seeking and consuming the drug becomes compulsive. This behavior results largely from the effects of prolonged drug exposure on brain functioning. Addiction is a brain disease that affects multiple brain circuits, including those involved in reward and motivation, learning and memory, and inhibitory control over behavior.

Because drug abuse and addiction have so many dimensions and disrupt so many aspects of an individual's life, treatment is not simple. Effective treat-

ment programs typically incorporate many components, each directed to a particular aspect of the illness and its consequences. Addiction treatment must help the individual stop using drugs, maintain a drug-free lifestyle, and achieve productive functioning in the family, at work, and in society. Because addiction is typically a chronic disease, people cannot simply stop using drugs for a few days and be cured. Most patients require long-term or repeated episodes of care to achieve the ultimate goal of sustained abstinence and recovery of their lives.

Too often, addiction goes untreated:

According to SAMHSA's National Survey on Drug Use and Health (NSDUH), 23.2 million persons (9.4 percent of the U.S. population) aged 12 or older needed treatment for an illicit drug or alcohol use problem in 2007. Of these individuals, 2.4 million (10.4 percent of those who needed treatment) received treatment at a specialty facility (i.e., hospital, drug or alcohol rehabilitation or mental health center). Thus, 20.8 million persons (8.4 percent of the population aged 12 or older) needed treatment for an illicit drug or alcohol use problem but did not receive it. These estimates are similar to those in previous years.[†]

Principles of Effective Treatment

Scientific research since the mid-1970s shows that treatment can help patients addicted to drugs stop using, avoid relapse, and successfully recover their lives. Based on this research, key principles have emerged that should form the basis of any effective treatment programs:

- Addiction is a complex but treatable disease that affects brain function and behavior.
 - No single treatment is appropriate for everyone.
 - Treatment needs to be readily available.
 - Effective treatment attends to multiple needs of the individual, not just his or her drug abuse.
 - Remaining in treatment for an adequate period of time is critical.
 - Counseling—individual and/or group—and other behavioral therapies are the most commonly used forms of drug abuse treatment.
 - Medications are an important element of treatment for many patients, especially when combined with counseling and other behavioral therapies.
 - An individual's treatment and services plan must be assessed continually and modified as necessary to ensure that it meets his or her changing needs.
- Many drug-addicted individuals also have other mental disorders.
 - Medically assisted detoxification is only the first stage of addiction treatment and by itself does little to change long-term drug abuse.
 - Treatment does not need to be voluntary to be effective.
 - Drug use during treatment must be monitored continuously, as lapses during treatment do occur.
 - Treatment programs should assess patients for the presence of HIV/AIDS, hepatitis B and C, tuberculosis, and other infectious diseases as well as provide targeted risk-reduction counseling to help patients modify or change behaviors that place them at risk of contracting or spreading infectious diseases.

Effective Treatment Approaches

Medication and behavioral therapy, especially when combined, are important elements of an overall therapeutic process that often begins with detoxification, followed by treatment and relapse prevention. Easing withdrawal symptoms can be important in the initiation of treatment; preventing relapse is necessary for maintaining its effects. And sometimes, as with other chronic conditions, episodes of relapse may require a return to prior treatment components. A continuum of care that includes a customized treatment

regimen—addressing all aspects of an individual’s life, including medical and mental health services—and followup options (e.g., community- or family-based recovery support systems) can be crucial to a person’s success in achieving and maintaining a drug-free lifestyle.

Medications

Medications can be used to help with different aspects of the treatment process.

Withdrawal. Medications offer help in suppressing withdrawal symptoms during detoxification. However, medically assisted detoxification is not in itself “treatment”—it is only the first step in the treatment process. Patients who go through medically assisted withdrawal but do not receive any further treatment show drug abuse patterns similar to those who were never treated.

Treatment. Medications can be used to help reestablish normal brain function and to prevent relapse and diminish cravings. Currently, we have medications for opioids (heroin, morphine), tobacco (nicotine), and alcohol addiction and are developing others for treating stimulant (cocaine, methamphetamine) and cannabis (marijuana) addiction. Most people with severe addiction problems, however, are polydrug users (users of more than one drug) and will require treatment for all of the substances that they abuse.

- *Opioids:* Methadone, buprenorphine and, for some individuals,

naltrexone are effective medications for the treatment of opiate addiction. Acting on the same targets in the brain as heroin and morphine, methadone and buprenorphine suppress withdrawal symptoms and relieve cravings. Naltrexone works by blocking the effects of heroin or other opioids at their receptor sites and should only be used in patients who have already been detoxified. Because of compliance issues, naltrexone is not as widely used as the other medications. All medications help patients disengage from drug seeking and related criminal behavior and become more receptive to behavioral treatments.

- *Tobacco:* A variety of formulations of nicotine replacement therapies now exist—including the patch, spray, gum, and lozenges—that are available over the counter. In addition, two prescription medications have been FDA-approved for tobacco addiction: bupropion and varenicline. They have different mechanisms of action in the brain, but both help prevent relapse in people trying to quit. Each of the above medications is recommended for use in combination with behavioral treatments, including group and individual therapies, as well as telephone quitlines.
- *Alcohol:* Three medications have been FDA-approved for treating alcohol dependence: naltrexone, acamprosate, and disulfiram. A

fourth, topiramate, is showing encouraging results in clinical trials. Naltrexone blocks opioid receptors that are involved in the rewarding effects of drinking and in the craving for alcohol. It reduces relapse to heavy drinking and is highly effective in some but not all patients—this is likely related to genetic differences. Acamprostate is thought to reduce symptoms of protracted withdrawal, such as insomnia, anxiety, restlessness, and dysphoria (an unpleasant or uncomfortable emotional state, such as depression, anxiety, or irritability). It may be more effective in patients with severe dependence. Disulfiram interferes with the degradation of alcohol, resulting in the accumulation of acetaldehyde, which, in turn, produces a very unpleasant reaction that includes flushing, nausea, and palpitations if the patient drinks alcohol. Compliance can be a problem, but among patients who are highly motivated, disulfiram can be very effective.

Behavioral Treatments

Behavioral treatments help patients engage in the treatment process, modify their attitudes and behaviors related to drug abuse, and increase healthy life skills. These treatments can also enhance the effectiveness of medications and help people stay in treatment longer. Treatment for drug abuse and addiction can be delivered in many different settings using a variety of behavioral approaches.

Outpatient behavioral treatment

encompasses a wide variety of programs for patients who visit a clinic at regular intervals. Most of the programs involve individual or group drug counseling. Some programs also offer other forms of behavioral treatment such as—

- *Cognitive-behavioral therapy*, which seeks to help patients recognize, avoid, and cope with the situations in which they are most likely to abuse drugs.
- *Multidimensional family therapy*, which was developed for adolescents with drug abuse problems—as well as their families—addresses a range of influences on their drug abuse patterns and is designed to improve overall family functioning.
- *Motivational interviewing*, which capitalizes on the readiness of individuals to change their behavior and enter treatment.
- *Motivational incentives* (contingency management), which uses positive reinforcement to encourage abstinence from drugs.

Residential treatment programs can also be very effective, especially for those with more severe problems. For example, *therapeutic communities* (TCs) are highly structured programs in which patients remain at a residence, typically for 6 to 12 months. TCs differ from other treatment approaches principally in their use of the community—treatment staff and those in recovery—as a key agent of change to influence patient attitudes, perceptions,

and behaviors associated with drug use. Patients in TCs may include those with relatively long histories of drug addiction, involvement in serious criminal activities, and seriously impaired social functioning. TCs are now also being designed to accommodate the needs of women who are pregnant or have children. The focus of the TC is on the resocialization of the patient to a drug-free, crime-free lifestyle.

Treatment Within the Criminal Justice System

Treatment in a criminal justice setting can succeed in preventing an offender's return to criminal behavior, particularly when treatment continues as the person transitions back into the community. Studies show that treatment does not need to be voluntary to be effective.

Other Information Sources

For more detailed information on treatment approaches for drug addiction and examples of specific programs proven effective through research, view NIDA's *Principles of Drug Addiction Treatment: A Research-Based Guide* at www.nida.nih.gov/PODAT/PODATIndex.html (English) or www.nida.nih.gov/PODAT/Spanish/PODATIndex.html (Spanish).

For information about treatment for drug abusers in the criminal justice system, view NIDA's *Principles of Drug Abuse Treatment for Criminal Justice Populations: A Research-Based Guide* at www.drugabuse.gov/PODAT_CJ.

[†] Data are from the National Survey on Drug Use and Health (formerly known as the National Household Survey on Drug Abuse), which is an annual survey of Americans age 12 and older conducted by the Substance Abuse and Mental Health Services Administration. This survey is available online at www.samhsa.gov and from NIDA at 877-643-2644.

Drug Facts

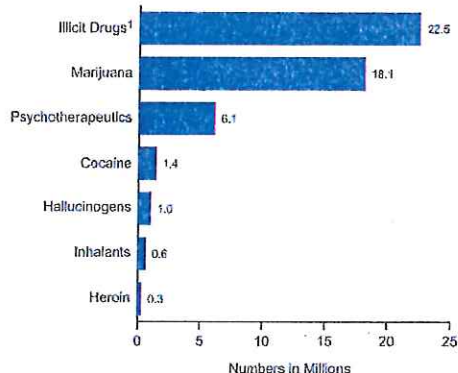
www.drugabuse.gov

Nationwide Trends

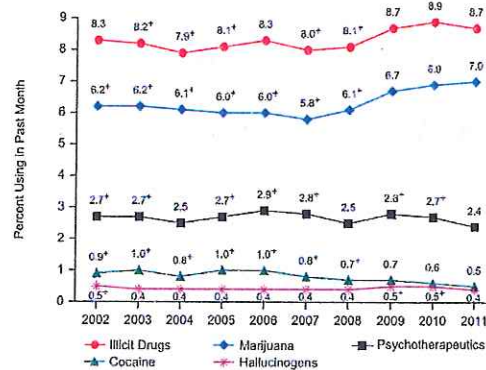
A major source of information on substance use, abuse, and dependence among Americans aged 12 and older is the annual National Survey on Drug Use and Health (NSDUH) conducted by the Substance Abuse and Mental Health Services Administration. Following are facts and statistics on substance use in America from 2011, the most recent year for which NSDUH survey data have been analyzed.

Illicit Drug Use

Illicit drug use in America has been increasing. In 2011, an estimated 22.5 million Americans aged 12 or older—or 8.7 percent of the population—had used an illicit drug or abused a psychotherapeutic medication (such as a pain reliever, stimulant, or tranquilizer) in the past month. This is up from 8.3 percent in 2002. The increase mostly reflects a recent rise in the use of marijuana, the most commonly used illicit drug.



Marijuana use has increased since 2007. In 2011, there were 18.1 million current (past-month) users—about 7.0 percent of people aged 12 or older—up from 14.4 million (5.8 percent) in 2007.



Use of most drugs other than marijuana has not changed appreciably over the past decade or has declined.

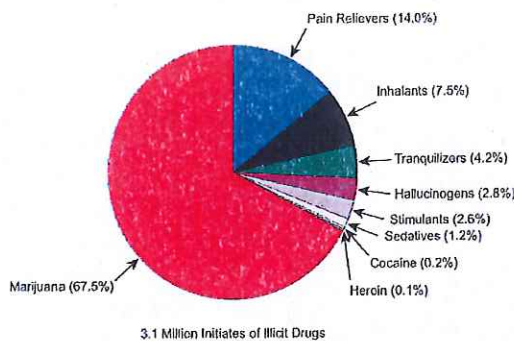
In 2011, 6.1 million Americans aged 12 or older (or 2.4 percent) had used psychotherapeutic prescription drugs nonmedically (without a prescription or in a manner or for a purpose not prescribed) in the past month—a decrease from 2010. And 972,000 Americans (0.4 percent) had used hallucinogens (a category that includes Ecstasy and LSD) in the past month—a decline from 2010.

Cocaine use has gone down in the last few years; from 2006 to 2011, the number of current users aged 12 or older dropped from 2.4 million to 1.4 million. Methamphetamine use has also dropped, from

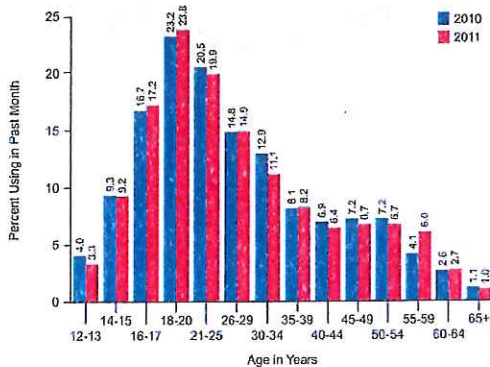
731,000 current users in 2006 to 439,000 in 2011.

Most people use drugs for the first time when they are teenagers. There were just over 3.0 million new users (initiates) of illicit drugs in 2011, or about 8,400 new users per day. Half (51 percent) were under 18.

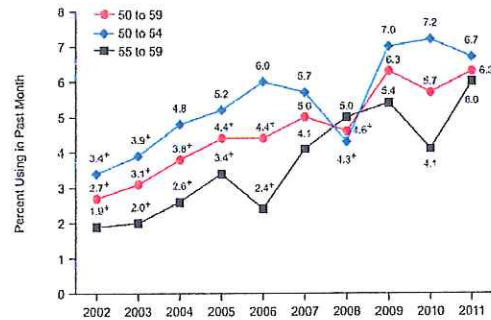
More than half of new illicit drug users begin with marijuana. Next most common are prescription pain relievers, followed by inhalants (which is most common among younger teens).



Drug use is highest among people in their late teens and twenties. In 2011, 23.8 percent of 18- to 20-year-olds reported using an illicit drug in the past month.



Drug use is increasing among people in their fifties. This is, at least in part, due to the aging of the baby boomers, whose rates of illicit drug use have historically been higher than those of previous cohorts.



Alcohol

Drinking by underage persons (ages 12-20) has declined. Current alcohol use by this age group declined from 28.8 to 25.1 percent between 2002 and 2011, while binge drinking declined from 19.3 to 15.8 percent and the rate of heavy drinking went from 6.2 to 4.4 percent.

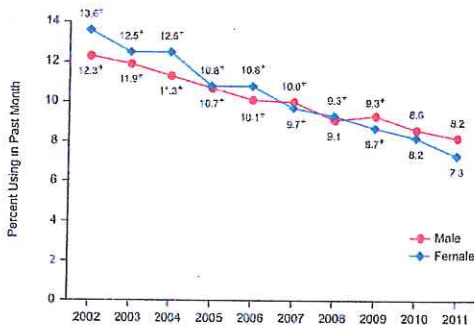
Binge and heavy drinking are more prevalent among men than among women. In 2011, 30.0 percent of men 12 and older and 13.9 percent of women reported binge drinking (five or more drinks on the same occasion) in the past month; and 9.1 percent of men and 2.6 percent of women reported heavy alcohol use (binge drinking on at least five separate days in the past month).

Driving under the influence of alcohol has also declined slightly. In 2011, an estimated 28.6 million people, or 11.1 percent of persons aged 12 or older, had driven under the influence of alcohol at least once in the past year, down from 14.2 percent in 2002. Although this decline is encouraging, any driving under the influence remains a cause for concern.

Tobacco

Fewer Americans are smoking. In 2011, an estimated 56.8 million Americans aged 12 or older, or 22 percent of the population, were current (past month) cigarette smokers. This reflects a continual but slow downward trend from 2002, when the rate was 26 percent.

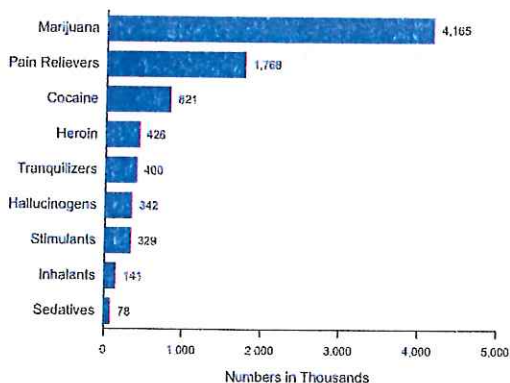
Teen smoking is declining more rapidly. The rate of past-month cigarette use among 12- to 17-year-olds went from 13 percent in 2002 to 7.8 percent in 2011.



Substance Dependence/Abuse and Treatment

Rates of alcohol dependence/abuse declined from 2002 to 2011. In 2011, 16.7 million Americans (6.5 percent of the population) were dependent on alcohol or had problems related to their use of alcohol (abuse). This is a decline from 18.1 million (or 7.7 percent) in 2002..

After alcohol, marijuana has the highest rate of dependence or abuse among all drugs. In 2011, 4.2 million Americans met clinical criteria for dependence or abuse of marijuana in the past year—more than twice the number for dependence/abuse of prescription pain relievers (1.8 million) and four times the number for dependence/abuse of cocaine (821,000).



There continues to be a large “treatment gap” in this country. In 2011, an estimated 21.6 million Americans (8.4 percent) need-

ed treatment for a problem related to drugs or alcohol, but only about 2.3 million people (less than 1 percent) received treatment at a specialty facility.

Learn More

Complete NSDUH findings are available at <http://www.samhsa.gov/data/NSDUH/2k11Results/NSDUHresults2011.htm>

For more information on drug use among adolescents, see the Drug Facts: High School and Youth Trends

About the Survey

The NSDUH is conducted every year by the Substance Abuse and Mental Health Services Administration. Survey respondents report whether they have used specific substances ever in their lives (lifetime), over the past year, and over the past month. It is generally believed that *past year* and *past month* are the better indicators of actual use; *past-month* use is also referred to as “current use.” Approximately 67,500 people responded to the survey in 2011.

INFOFACTS

www.drugabuse.gov

National Institute on Drug Abuse • National Institutes of Health • U.S. Department of Health & Human Services

Drugged Driving

What Is Drugged Driving?

"Have one [drink] for the road" was once a commonly used phrase in American culture. It has only been within the past 25 years that as a Nation, we have begun to recognize the dangers associated with drunk driving. And through a multipronged and concerted effort involving many stakeholders—including educators, media, legislators, law enforcement, and community organizations such as Mothers Against Drunk Driving—the Nation has seen a decline in the numbers of people killed or injured as a result of drunk driving. But it is now time that we recognize and address the similar dangers that can occur with drugged driving.

The principal concern regarding drugged driving is that driving under the influence of any drug that acts on the brain could impair one's motor skills, reaction time, and judgment. Drugged driving is a public health concern because it puts not only the driver at risk but also passengers and others who share the road.

However, despite the knowledge about a drug's potentially lethal effects on driving performance and other concerns that have been acknowledged by some public health officials, policy officials, and constituent groups, drugged driving laws have lagged

behind alcohol-related driving legislation, in part because of limitations in the current technology for determining drug levels and resulting impairment. For alcohol, detection of its blood concentration (BAC) is relatively simple, and concentrations greater than 0.08 percent have been shown to impair driving performance; thus, 0.08 percent is the legal limit in this country. But for illicit drugs, there is no agreed-upon limit for which impairment has been reliably demonstrated. Furthermore, determining current drug levels can be difficult, since some drugs linger in the body for a period of days or weeks after initial ingestion.

Some States (Arizona, Delaware, Georgia, Indiana, Illinois, Iowa, Michigan, Minnesota, Nevada, North Carolina, Ohio, Pennsylvania, Rhode Island, South Dakota, Utah, Virginia, and Wisconsin) have passed "per se" laws, in which it is illegal to operate a motor vehicle if there is *any* detectable level of a prohibited drug, or its metabolites, in the driver's blood. Other State laws define "drugged driving" as driving when a drug "renders the driver incapable of driving safely" or "causes the driver to be impaired."

In addition, 44 States and the District of Columbia have implemented Drug Evaluation and Classification Programs, designed to train police officers as Drug Recognition Experts. Officers learn to detect characteristics in a person's behavior and appearance that may be associated with drug

intoxication. If the officer suspects drug intoxication, a blood or urine sample is submitted to a laboratory for confirmation.

How Many People Take Drugs and Drive?

According to the National Highway Traffic Safety Administration's (NHTSA) 2007 National Roadside Survey, more than 16 percent of weekend, nighttime drivers tested positive for illegal, prescription, or over-the-counter medications. More than 11 percent tested positive for illicit drugs.¹ Another NHTSA study found that in 2009, among fatally injured drivers, 18 percent tested positive for at least one drug (e.g., illicit, prescription, or over-the-counter), an increase from 13 percent in 2005.² Together, these indicators are a sign that continued substance abuse education, prevention, and law enforcement efforts are critical to public health and safety.

According to the 2009 National Survey on Drug Use and Health (NSDUH), an estimated 10.5 million people aged 12 or older reported driving under the influence of illicit drugs during the year prior to being surveyed.³ This corresponds to 4.2 percent of the population aged 12 or older, similar to the rate in 2008 (4 percent) and not significantly different from the rate in 2002 (4.7 percent). In 2009, the rate was highest among young adults aged 18 to 25 (12.8 percent). In addition, NSDUH reported the following:

- In 2009, an estimated 12 percent of persons aged 12 or older (30.2 million persons) drove under the influence of alcohol at least once in the past year. This percentage has dropped since 2002, when it was 14.2 percent.
- Driving under the influence of an illicit drug or alcohol was associated with age. In 2009, an estimated 6.3 percent of youth aged 16 or 17 drove under the influence. This percentage steadily increased with age to reach a peak of 24.8 percent among young adults aged 21 to 25. Beyond the age of 25, these rates showed a general decline with increasing age.
- Also in 2009, among persons aged 12 or older, males were more likely than females (16.9 percent versus 9.2 percent, respectively) to drive under the influence of an illicit drug or alcohol in the past year.

In recent years, more attention has been given to drugs other than alcohol that have increasingly been recognized as hazards to road traffic safety. Some of this research has been done in other countries or in specific regions within the United States, and the prevalence rates for different drugs used vary accordingly. Overall, marijuana is the most prevalent illegal drug detected in impaired drivers, fatally injured drivers, and motor vehicle crash victims. Other drugs also implicated include benzodiazepines, cocaine, opiates, and amphetamines.⁴

A number of studies have examined illicit drug use in drivers involved in motor vehicle crashes, reckless driving, or fatal accidents. For example—

- One study found that about 34 percent of motor vehicle crash victims admitted to a Maryland trauma center tested positive for “drugs only;” about 16 percent tested positive for “alcohol only.” Approximately 9.9 percent (or 1 in 10) tested positive for alcohol and drugs, and within this group, 50 percent were younger than age 18.⁵ Although it is interesting that more people in this study tested positive for “drugs only” compared with “alcohol only,” it should be noted that this represents one geographic location, so findings cannot be generalized. In fact, the majority of studies among similar populations have found higher prevalence rates of alcohol use compared with drug use.⁶
- Studies conducted in several localities have found that approximately 4 to 14 percent of drivers who sustained injury or died in traffic accidents tested positive for delta-9-tetrahydrocannabinol (THC), the active ingredient in marijuana.⁷
- In a large study of almost 3,400 fatally injured drivers from three Australian states (Victoria, New South Wales, and Western Australia) between 1990 and 1999, drugs other than alcohol were present in 26.7 percent of the cases.⁸

These included cannabis (13.5 percent), opioids (4.9 percent), stimulants (4.1 percent), benzodiazepines (4.1 percent), and other psychotropic drugs (2.7 percent). Almost 10 percent of the cases involved both alcohol and other drugs.

Teens and Drugged Driving

According to the Centers for Disease Control and Prevention, vehicle accidents are the leading cause of death among young people aged 16 to 19.⁹ It is generally accepted that because teens are the least experienced drivers as a group, they have a higher risk of being involved in an accident compared with more experienced drivers. When this lack of experience is combined with the use of marijuana or other substances that impact cognitive and motor abilities, the results can be tragic.

Results from NIDA’s Monitoring the Future survey indicate that in 2007, more than 12 percent of high school seniors admitted to driving under the influence of marijuana in the 2 weeks prior to the survey.¹⁰

The 2007 State of Maryland Adolescent Survey indicates that 11.1 percent of the State’s licensed adolescent drivers reported driving under the influence of marijuana on three or more occasions, and 10 percent reported driving while using a drug other than marijuana (not including alcohol).¹¹

Why Is Drugged Driving Hazardous?

Drugs acting on the brain can alter perception, cognition, attention, balance, coordination, reaction time, and other faculties required for safe driving. The effects of specific drugs of abuse differ depending on their mechanisms of action, the amount consumed, the history of the user, and other factors.

Marijuana

THC affects areas of the brain that control the body's movements, balance, coordination, memory, and judgment, as well as sensations. Because these effects are multifaceted, more research is required to understand marijuana's impact on the ability of drivers to react to complex and unpredictable situations. However, we do know that—

- A meta-analysis of approximately 60 experimental studies—including laboratory, driving simulator, and on-road experiments—found that behavioral and cognitive skills related to driving performance were impaired in a dose-dependent fashion with increasing THC blood levels.¹²
- Evidence from both real and simulated driving studies indicates that marijuana can negatively affect a driver's attentiveness, perception of time and speed, and ability to draw on information obtained from past experiences.

- A study of over 3,000 fatally injured drivers in Australia showed that when marijuana was present in the blood of the driver, he or she was much more likely to be at fault for the accident. Additionally, the higher the THC concentration, the more likely the driver was to be culpable.¹³
- Research shows that impairment increases significantly when marijuana use is combined with alcohol.¹⁴ Studies have found that many drivers who test positive for alcohol also test positive for THC, making it clear that drinking and drugged driving are often linked behaviors.

Other Drugs

Prescription drugs: Many medications (e.g., benzodiazepines and opiate analgesics) act on systems in the brain that could impair driving ability. In fact, many prescription drugs come with warnings against the operation of machinery—including motor vehicles—for a specified period of time after use. When prescription drugs are taken without medical supervision (i.e., when abused), impaired driving and other harmful reactions can also result. In short, drugged driving is a dangerous activity that puts us all at risk.

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Drug Facts

www.drugabuse.gov

HIV/AIDS and Drug Abuse: Intertwined Epidemics

Drug abuse and addiction have been inextricably linked with HIV/AIDS since the beginning of the epidemic. The link has to do with heightened risk—both of contracting and transmitting HIV and of worsening its consequences.

No vaccine yet exists to protect a person from getting HIV, and there is no cure. However, HIV *can* be prevented and its transmission curtailed. Drug abuse treatment fosters both of these goals. HIV medications also help prevent HIV transmission and the progression of HIV to AIDS, greatly prolonging lives.

What Exactly Is HIV/AIDS?

HIV stands for human immunodeficiency virus. This virus severely damages the immune system and causes acquired immune deficiency syndrome, or AIDS, a condition that defeats the body's ability to protect itself against disease.

HIV inflicts this damage by infecting immune cells in our bodies called CD4 positive (CD4+) T cells—essential for fighting infections. HIV converts these cells into "factories" that produce more of the HIV virus to infect other healthy cells, eventually destroying the CD4+ cells.

As CD4+ cells are lost and the immune system weakens, a person becomes more prone to illnesses and common infections. AIDS is diagnosed when a person has one or more of these infections and a CD4+ cell count of less than 200.

More than 16,000 people died from AIDS in 2008.

How Is HIV Spread?

HIV is transmitted by contact with the blood or other body fluids of an infected person. This can occur during unprotected sex or through sharing injection drug-use equipment. In addition, untreated infected women can pass HIV to their infants during pregnancy, delivery, and breastfeeding.

How Do Drugs Affect HIV?

Most people know that intravenous drug use and needle-sharing can transmit HIV; less known is the role that drug abuse in general plays. A person under the influence of certain drugs is more likely to engage in risky behaviors such as having unsafe sex with an infected partner. Indeed, the most common (but not only) way of contracting HIV is through unsafe sex. This includes

Transactional sex trading sex for drugs or money.

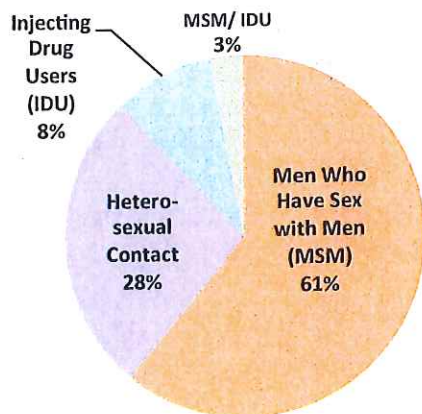
Drug abuse and addiction can also worsen HIV symptoms, causing greater neuronal injury and cognitive impairment, for example.

Because of the strong link between drug abuse and the spread of HIV, drug abuse treatment can be an effective way to prevent the latter. People in drug abuse treatment, which often includes HIV risk reduction counseling, stop or reduce their drug use and related risk behaviors, including risky injection practices and unsafe sex.

Can Anyone Get HIV/AIDS?

Yes, anyone is vulnerable to contracting HIV. Although injecting and other drug users are at elevated risk, anyone who has unprotected sex could be exposed to the infection. In 2010, more than 47,000 people were diagnosed with HIV. Among those newly diagnosed, nearly two-thirds were men who have sex with men (MSM). One-half of all people living with HIV in 2008 were MSM.

Men Who Have Sex with Men (MSM) Made up the Majority of New HIV Diagnoses in 2010



Source: Centers for Disease Control and Prevention

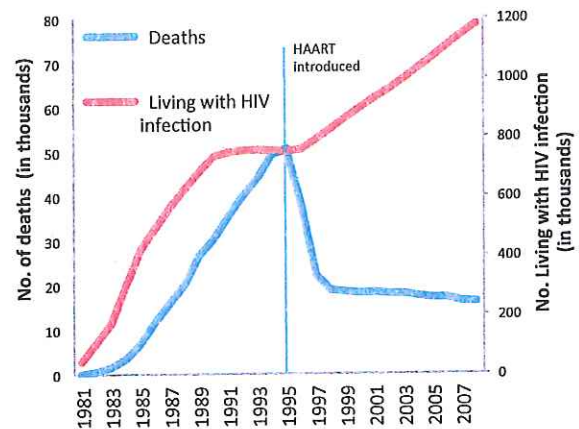
HIV infection is also disproportionately represented in the African American com-

munity. Nearly one-half of all newly diagnosed cases in the United States are in African Americans, followed by the White and Hispanic populations.

How Is HIV Treated?

From the beginning of the HIV/AIDS epidemic in the early 1980s until the mid-1990s, HIV infection was almost guaranteed to result in death from AIDS. The number of deaths declined after 1996, when effective treatments were introduced.

With the Advent of HAART, More People Are Living with HIV infection (red) as Rates of AIDS-Related Deaths Decline (blue)



Source: Centers for Disease Control and Prevention

HAART highly active antiretroviral therapy is a customized combination of different classes of medications that a physician prescribes to treat HIV. Although it cannot rid the body of the virus, HAART can control the amount of virus in the bloodstream (viral load), delaying the onset of symptoms and progression to AIDS, prolonging survival in people with HIV.

Why Is HIV Testing So Important?

A person infected with HIV may look and feel fine for many years and may not even be aware they are infected. In fact, the Centers for Disease Control and Prevention estimates that 1.2 million people are infected with HIV in the United States and that one in five is unaware of it.

HIV testing is critical and can help prevent the spread of the infection among those most at risk (e.g., people who abuse drugs) and in general. Getting tested is not complicated. Some tests can even provide results in 20 minutes, although testing is not accurate until about 6–8 weeks after exposure to HIV. That time is needed for HIV antibodies to form in amounts detectable by a standard HIV test.

Research shows that seeking out and testing high-risk populations and starting treatment for those who test positive pre-

vents HIV transmission by decreasing viral load, infectivity (the ability to infect others), and subsequent illness to the benefit of all.

Learn More

For more information on HIV/AIDS, visit www.drugabuse.gov/publications/research-reports/hivaids

Drug Facts

www.drugabuse.gov

Substance Abuse in the Military

Members of the armed forces are not immune to the substance use problems that affect the rest of society. Although illicit drug use is lower among U.S. military personnel than among civilians, heavy alcohol and tobacco use, and especially prescription drug abuse, are much more prevalent and are on the rise.

The stresses of deployment during wartime and the unique culture of the military account for some of these differences. Zero-tolerance policies and stigma pose difficulties in identifying and treating substance use problems in military personnel, as does lack of confidentiality that deters many who need treatment from seeking it.

Those with multiple deployments and combat exposure are at greatest risk of developing substance use problems. They are more apt to engage in new-onset heavy weekly drinking and binge drinking, to suffer alcohol- and other drug-related problems, and to have greater prescribed use of behavioral health medications. They are also more likely to start smoking or relapse to smoking.

Illicit and Prescription Drugs

According to the 2008 Department of Defense (DoD) Survey of Health Related Behaviors among Active Duty Military Personnel, just 2.3 percent of military personnel were past-month users of an illicit drug, compared with 12 percent of civilians. Among those age 18–25 (who are most likely to use drugs), the rate among military personnel was 3.9 percent, compared with 17.2 percent among civilians.

A policy of zero tolerance for drug use among DoD personnel is likely one reason why illicit drug use has remained at a low level in the military for 2 decades. The policy was instituted in 1982 and is currently enforced by frequent random drug testing; service members face dishonorable discharge and even criminal prosecution for a positive drug test.

However, in spite of the low level of illicit drug use, abuse of prescription drugs is higher among service members than among civilians and is on the increase. In 2008, 11 percent of service members reported misusing prescription drugs, up from 2 percent in 2002 and 4 percent in 2005. Most of the prescription drugs misused by service members are opioid pain medications.

Mental Health Problems in Returning Veterans

Service members may carry the psychological and physical wounds of their military experience with them into subsequent civilian life. In one study, one in four veterans returning from Iraq and Afghanistan reported symptoms of a mental or cognitive disorder; one in six reported symptoms of post-traumatic stress disorder (PTSD). These disorders are strongly associated with substance abuse and dependence, as are other problems experienced by returning military personnel, including sleep disturbances, traumatic brain injury, and violence in relationships.

Young adult veterans are particularly likely to have substance use or other mental health problems. According to a report of veterans in 2004-2006, a quarter of 18- to 25-year-old veterans met criteria for a past-year substance use disorder, which is more than double the rate of veterans aged 26-54 and five times the rate of veterans 55 or older.

The greater availability of these medications and increases in prescriptions for them may contribute to their growing misuse by service members. Pain reliever prescriptions written by military physicians quadrupled between 2001 and 2009—to almost 3.8 million. Combat-related injuries and the strains from carrying heavy equipment during multiple deployments likely play a role in this trend.

Drinking and Smoking

Alcohol use is also higher among men and women in military service than

among civilians. Almost half of active duty service members (47 percent) reported binge drinking in 2008—up from 35 percent in 1998. In 2008, 20 percent of military personnel reported binge drinking every week in the past month; the rate was considerably higher—27 percent—among those with high combat exposure.

In 2008, 30 percent of all service members were current cigarette smokers—comparable to the rate for civilians (29 percent). However, as with alcohol use, smoking rates are significantly higher among personnel who have been exposed to combat.

Suicides and Substance Use

Suicide rates in the military were traditionally lower than among civilians in the same age range, but in 2004 the suicide rate in the U.S. Army began to climb, surpassing the civilian rate in 2008. Substance use is involved in many of these suicides. The 2010 report of the Army Suicide Prevention Task Force found that 29 percent of active duty Army suicides from fiscal year (FY) 2005 to FY 2009 involved alcohol or drug use; and in 2009, prescription drugs were involved in almost one third of them.

Addressing the Problem

A 2012 report prepared for the DoD by the Institute of Medicine (IOM Report) recommended ways of addressing the problem of substance use in the military, including increasing the use of evidence-based prevention and treatment interventions and expanding access to care. The report recommends broadening insurance coverage to include effective outpatient treatments and better equipping healthcare providers to recognize and screen for substance use problems so they can refer patients to appropriate, evidence-based treatment when needed.

It also recommends measures like limiting access to alcohol on bases.

The IOM Report also notes that addressing substance use in the military will require increasing confidentiality and shifting a cultural climate in which drug problems are stigmatized and evoke fear in people suffering from them.

Branches of the military have already taken steps to curb prescription drug abuse. The Army, for example, has implemented changes that include limiting the duration of prescriptions for opioid pain relievers to 6 months and having a pharmacist monitor a soldier's medica-

tions when multiple prescriptions are being used.

NIDA and other government agencies are currently funding research to better understand the causes of drug abuse and other mental health problems among military personnel, veterans, and their families and how best to prevent and treat them.

Learn More

For additional information on drug abuse in the military, see <http://www.drugabuse.gov/related-topics/substance-abuse-in-military-life>

Tobacco Dependence

What Is Known About Smoking?

Behavioral scientists have studied smoking in depth for over 25 years. It is also the leading preventable cause of chronic illness. Over 400,000 deaths occur each year from cancer and heart and lung disease, and smoking is often a contributing factor. Much is known about the habit and many of the facts that apply to smoking apply to other forms of tobacco use, such as chewing tobacco, pipes, cigars, and snuff.

Smoking is a learned habit that provides positive short-term benefits — both psychological and biochemical. Once established the smoking habit is difficult to break. Smokers learn that smoking is a quick, convenient way to feel good. Smoking can help an individual cope with uncomfortable emotions (like boredom or stress) or help an individual feel comfortable in social situations (like a party.) Once started, smoking becomes associated with daily events, like watching TV.

Every smoker is different. Each smoker smokes for different reasons and can be more or less heavily dependent on smoking. Dependent means that an individual has difficulty stopping smoking even when they really want to stop.

The accumulated knowledge about smoking indicates that giving up smoking depends on:
breaking the automatic habit that links wanting to smoke to everyday routines (like after eating, talking on the phone, watching TV, drinking coffee);
finding other ways to get the psychological benefits of smoking; and
how heavily dependent on nicotine an individual is and, therefore, how unpleasant the withdrawal during the quitting process will be.

Quitting Smoking

The good news is that since cigarette smoking is a learned behavior, it can be unlearned. New behaviors and coping skills can be substituted so that an individual can live a satisfying life, but without the health-damaging effects of tobacco products. Any unpleasant withdrawal symptoms (trouble concentrating, sleep problems, irritability, headaches, cough, sore throat, appetite change, dizziness) are usually temporary. Most side effects are over in 7 to 10 days while some milder ones can last 1 to 3 months. More difficult than the side effects of withdrawal might be dealing with strong cravings or temptations to smoke again. It is therefore necessary to learn new ways to manage stress and emotions.

Tobacco use is one of the most complex and difficult habits to break. Most people try several times (the average is 3 to 5) before they finally succeed. It can take months or even years (3 to 7) to go through the process of quitting successfully. Over 40 million Americans have quit smoking over the last 20 years, so it can be done.

Quitting means hard work, learning, and practice. You may not succeed the first time you try, although many people do. Although cutting down does reduce the risk of illness, there is really no "safe" level of smoking, so your goal should be to stop completely. Even exposure to other people's smoke causes increased health problems for kids and adults.

The Stages in a Smoker's Life

Smoking can be divided into five stages:

1. Acquisition

Kids and young adults start smoking for many reasons. Some move quickly from experimenting to regular use. Many others luckily grow out of the habit. Young smokers do not take seriously warnings about future health effects of smoking. Therefore, prevention of smoking before it becomes a regular habit is an important priority for society. Behavioral scientists and educators have developed prevention programs for youth, families, and schools that focus on "peer

resistance skills training" for tobacco, alcohol, and hard drugs. It is far easier to stop a possibly addictive habit before it takes hold than to stop it after years of use.

2. Regular Smoking

Regular smokers enjoy smoking and believe that it has more benefits than risks. They are not ready to quit and if they were pressured to quit by others they would probably have a very difficult time.

3. Thinking About Quitting

To prepare for quitting, an individual can make a list of reasons to smoke (pros) and reasons to quit (cons). This process is most effective when an individual seeks information and opens their mind to the cons — how smoking personally affects their life and immediate loved ones in negative ways. When the cons outweigh the pros, a person may be ready to quit.

4. Quitting Smoking

5. Preventing Relapse

About 80% of smokers will be able to quit for 1 day. The first 14 days after quitting are the toughest, with about 20% to 30% of quitters slipping back into smoking during this time. The next 3 months are also tough, with about 30% more quitters resuming smoking. It takes a full year of nonsmoking to really consider a person as having successfully quit.

In order to quit an individual needs to understand their smoking patterns.

Why do they smoke?

Where do they smoke?

What triggers their cravings for cigarettes?

Which cigarettes are easiest to give up and which are the hardest?

An individual also need to learn new coping skills:

How to get through the day without cigarettes;

What they can do instead of smoke, when under stress, and so on.

This is where behavior modification skill training programs can help. An individual can learn relaxation, cognitive restructuring (self-talk to help get through very tempting cravings), and social skills to get support. An individual can also learn techniques to minimize the weight gain many smokers experience when they try to quit.

Treatments for Smoking

Generally an individual should try a lower cost self-help approach to quitting on their own if a first-time quitter, a lighter smoker (less than 20/day), they feel less dependent on nicotine, they don't smoke when they have a cold/flu or other illness, and don't have to smoke immediately (within 15 minutes) upon waking in the morning.

Behavioral self-help manuals (available from voluntary agencies like the local chapters of American Lung Association, Cancer Society, or Heart Association) are recommended. The American Lung Association program has been well researched, is based on solid behavior therapy techniques, and has a good 15% to 20% success rate at 1 year after the first attempt to quit.

By contrast, an individual will need a more intensive clinic treatment if they have tried to quit and failed several times, are a heavier smoker (more than 20/day), feel dependent on nicotine, smoke even when they have a cold or other illness, and smoke immediately upon waking in the morning. Professional clinics provide intensive training, group support to quit, and, most important, coping skills to resist temptations to go back to smoking.

If an individual has problems with other drugs or alcohol or moods like anxiety or depression, then they will probably need a clinic plus medication to help quit. If an individual has unsuccessfully tried the other methods, as a last resort, consider a clinic that combines behavioral treatment with medication or nicotine gum — the most intense and expensive alternative.

Much information is currently available. Programs are widespread to help people quit smoking and to encourage prevention. Advances in research by behavioral and biomedical scientists will continue to help us develop better treatments to help people overcome their dependence on tobacco.

What Is Cognitive Behavior Therapy?

Behavior Therapy and Cognitive Behavior Therapy are types of treatment that are based firmly on research findings. These approaches aid people in achieving specific changes or goals.

Changes or Goals might involve:

- a way of acting - like smoking less or being more outgoing;
- a way of feeling - like helping a person be less scared, less depressed, or less anxious;
- a way of thinking - like learning to problem-solve or get rid of self-defeating thoughts;
- a way of dealing with physical or medical problems - like lessening back pain or helping a person stick to a doctor's suggestions; or
- a way of adjusting - like training developmentally disabled people to care for themselves or hold a job.

Behavior Therapists and Cognitive Behavior Therapists usually focus more on the current situation and its solution, rather than the past. They concentrate on a person's views and beliefs about their life, not on personality traits. Behavior Therapists and Cognitive Behavior Therapists treat individuals, parents, children, couples, and families. Replacing ways of living that do not work well, with ways of living that work, and giving people more control over their lives are common goals of behavior and cognitive behavior therapy.

The Association for Behavioral and Cognitive Therapies (ABCT) is an interdisciplinary organization committed to the advancement of a scientific approach to the understanding and amelioration of problems of the human condition. These aims are achieved through the investigation and application of behavioral, cognitive, and other evidence-based principles to assessment, prevention, and treatment.

For more information, please contact ABCT at
305 7th Avenue, 16th Fl., New York, NY 10001
Phone (212) 647-1890

NIDA INFOFACTS

www.drugabuse.gov

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Treatment Statistics

According to the Substance Abuse and Mental Health Services Administration's (SAMHSA's) National Survey on Drug Use and Health,[†] 23.5 million persons aged 12 or older needed treatment for an illicit drug or alcohol abuse problem in 2009 (9.3 percent of persons aged 12 or older). Of these, only 2.6 million—11.2 percent of those who needed treatment—received it at a specialty facility.

SAMHSA also reports characteristics of admissions and discharges from substance abuse treatment facilities* in its Treatment Episode Data Set^{††} (TEDS). According to TEDS, there were 1.8 million admissions in 2008 for treatment of alcohol and drug abuse to facilities that report to State administrative data systems. Most treatment admissions (41.4 percent) involved alcohol abuse. Heroin and other opiates accounted for the largest percentage of drug-related admissions (20.0 percent), followed by marijuana (17.0 percent).

By Drug—Admissions to Publicly Funded Substance Abuse Treatment Programs, 2008

Percentage of Admissions**	Substance or Drug
23.1	Alcohol only
18.3	Alcohol + another drug
17.0	Marijuana
14.1	Heroin
8.1	Smoked cocaine (crack)
6.5	Stimulants***
5.9	Opiates (not heroin)****
3.2	Nonsmoked cocaine (e.g., cocaine powder)
0.6	Tranquilizers
0.2	PCP
0.2	Sedatives
0.1	Hallucinogens
0.1	Inhalants
0.4	Other drugs
2.2	None reported

About 60 percent of admissions were White, 21 percent were African-American, and 14 percent were Hispanic or Latino. Another 2.3 percent were American Indian or Alaska Native and 1 percent were Asian/Pacific Islander.

By Race—Admissions to Publicly Funded Substance Abuse Treatment Programs, 2008	
Percentage of Admissions**	Race/Ethnicity
59.8	White
20.9	African-American
13.7	Hispanic Origin
2.3	American Indian or Alaska Native
1.0	Asian/Pacific Islander
2.3	Other

The age range with the highest proportion of treatment admissions was the 25–29 group at 14.8 percent, followed by those 20–24 at 14.4 percent and those 40–44 at 12.6 percent.

By Age—Admissions to Publicly Funded Substance Abuse Treatment Programs, 2008

Percentage of Admissions**	Age Group
14.8	25–29
14.4	20–24
12.6	40–44
11.7	35–39
11.5	45–49
11.3	30–34
10.4	50–59
7.5	12–17
4.1	18–19
1.2	60–64
0.6	65 or older

Other Information Sources

For other information on treatment trends, visit SAMHSA’s publications ordering page (www.store.samhsa.gov/home) or its Center for Behavioral Health Statistics and Quality site at www.samhsa.gov/about/cbhsq.aspx.

For information on treatment research findings, visit the NIDA Web site at www.nida.nih.gov/DrugPages/Treatment.html.

Data Sources

[†] NSDUH (formerly known as the National Household Survey on Drug Abuse) is an annual survey of Americans aged 12 and older conducted by the Substance Abuse and Mental Health Services Administration, Department of Health and Human Services.

^{††} *Treatment Episode Data Set (TEDS) 1998–2008: National Admissions to Substance Abuse Treatment Services* is published by the Substance Abuse and Mental Health Services Administration, Office of Applied Studies. It contains demographic and substance abuse characteristics about treatment admissions to facilities that are licensed or certified by State substance abuse agencies.

Notes

* Includes facilities that are licensed or certified by the State substance abuse agency to provide substance abuse treatment. In general, facilities that report data are those that receive State alcohol and/or drug agency funds for the provision of alcohol and/or drug treatment services.

** Totals may add up to more or less than 100 percent because of rounding.

*** Methamphetamine accounted for 6.1 percent of admissions, and the remaining 0.4 percent were categorized as "Other Amphetamine."

**** These drugs include codeine, hydrocodone, hydromorphone, meperidine, morphine, opium, oxycodone, pentazocine, propoxyphene, tramadol, and any other drug with morphine-like effects. Nonprescription use of methadone is not included.

