

Addiction/Substance Abuse

Brigham Young University

Aimee Johansen

Flavia Lima

Table of Contents

Definition and Introduction to the Population.....	2
Diagnosis, Symptoms, Prognosis, Progression.....	8
Specific Needs.....	21
Specific Tests, Equipment, Medication, etc.....	25
TR Implications.....	29
Resources (Local, State, National, & International).....	33
Fact Sheet and Handouts.....	36
Professionalism.....	43
References.....	47

Definition and Introduction to Addiction/Substance Abuse

People experiment with drugs for many different reasons. Many first try drugs out of curiosity, to have a good time, because friends are doing it, or in an effort to improve athletic performance or ease another problem, such as stress, anxiety, or depression. Use doesn't automatically lead to abuse, and there is no specific level at which drug use moves from casual to problematic. It varies by individual. Drug abuse and addiction is less about the amount of substance consumed or the frequency, and more to do with the **consequences** of drug use. No matter how often or how little you're consuming, if your drug use is causing problems in your life—at work, school, home, or in your relationships—you likely have a drug abuse or addiction problem.

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, \$193 billion for tobacco, and \$235 billion for alcohol. 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 employment, failure in school, domestic violence, and child abuse.

How do addictions happen?

People who experiment with drugs continue to use them because the substance either makes them feel good, or stops them from feeling bad. In many cases, however, there is a fine line between regular use and drug abuse and addiction. Very few addicts are able to recognize when they have crossed that line. While frequency or the amount of drugs consumed don't in themselves constitute drug abuse or addiction, they can often be indicators of drug-related problems.

- **Problems can sometimes sneak up on you**, as your drug use gradually increases over time. Smoking a joint with friends at the weekend, or taking ecstasy at a rave, or cocaine at an occasional

party, for example, can change to using drugs a couple of days a week, then every day. Gradually, getting and using the drug becomes more and more important to you.

- **If the drug fulfills a valuable need,** you may find yourself increasingly relying on it. For example, you may take drugs to calm you if you feel anxious or stressed, energize you if you feel depressed, or make you more confident in social situations if you normally feel shy. Or you may have started using prescription drugs to cope with panic attacks or relieve chronic pain, for example. Until you find alternative, healthier methods for overcoming these problems, your drug use will likely continue.
- **Similarly, if you use drugs to fill a void in your life,** you're more at risk of crossing the line from casual use to drug abuse and addiction. To maintain healthy balance in your life, you need to have other positive experiences, to feel good in your life aside from any drug use.
- **As drug abuse takes hold,** you may miss or frequently be late for work or school, your job performance may progressively deteriorate, and you start to neglect social or family obligations. Your ability to stop using is eventually compromised. What began as a voluntary choice has turned into a physical and psychological need.

The good news is that with the right treatment and support, you can counteract the disruptive effects of drug use and regain control of your life. The first obstacle is to recognize and admit you have a problem, or listen to loved ones who are often better able to see the negative effects drug use is having on your life

Addictions and the Brain

Addiction is a complex disorder characterized by compulsive drug use. While each drug produces different physical effects, all abused substances share

one thing in common: repeated use can alter the way the brain looks and functions.

- Taking a recreational drug causes a surge in levels of dopamine in your brain, which trigger feelings of pleasure. Your brain remembers these feelings and wants them repeated.
- If you become addicted, the substance takes on the same significance as other survival behaviors, such as eating and drinking.
- Changes in your brain interfere with your ability to think clearly, exercise good judgment, control your behavior, and feel normal without drugs.
- Whether you're addicted to inhalants, heroin, Xanax, speed, or Vicodin, the uncontrollable craving to use grows more important than anything else, including family, friends, career, and even your own health and happiness.
- The urge to use is so strong that your mind finds many ways to deny or rationalize the addiction. You may drastically underestimate the quantity of drugs you're taking, how much it impacts your life, and the level of control you have over your drug use.

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.

Substance Abuse Causes

Use and abuse of substances such as cigarettes, alcohol, and illegal drugs may begin in childhood or the teen years. Certain risk factors may increase someone's likelihood to abuse substances.

- Factors within a family that influence a child's early development have been shown to be related to increased risk of drug abuse.
- Chaotic home environment
- Genetic risks (drug or alcohol abuse sometimes can run in families)
- Lack of nurturing and parental attachment

- Factors related to a child's socialization outside the family may also increase risk of drug abuse.
- Inappropriately aggressive or shy behavior in the classroom
- Poor social coping skills
- Poor school performance
- Association with a deviant peer group
- Perception of approval of drug use behavior

DIAGNOSIS, SYMPTOMS, PROGNOSIS, PROGRESSION

Although different drugs have different physical effects, the symptoms of addiction are similar. See if you recognize yourself in the following signs and symptoms of substance abuse and addiction. If so, consider talking to someone about your drug use.

Common signs and symptoms of drug abuse

- **You're neglecting your responsibilities** at school, work, or home (e.g. flunking classes, skipping work, neglecting your children) because of your drug use.
- **You're using drugs under dangerous conditions or taking risks while high**, such as driving while on drugs, using dirty needles, or having unprotected sex.
- **Your drug use is getting you into legal trouble**, such as arrests for disorderly conduct, driving under the influence, or stealing to support a drug habit.
- **Your drug use is causing problems in your relationships**, such as fights with your partner or family members, an unhappy boss, or the loss of old friends.

Common signs and symptoms of drug addiction

- **You've built up a drug tolerance.** You need to use more of the drug to experience the same effects you used to attain with smaller amounts.
- **You take drugs to avoid or relieve withdrawal symptoms.** If you go too long without drugs, you experience symptoms such as nausea, restlessness, insomnia, depression, sweating, shaking, and anxiety.
- **You've lost control over your drug use.** You often do drugs or use more than you planned, even though you told yourself you wouldn't. You may want to stop using, but you feel powerless.
- **Your life revolves around drug use.** You spend a lot of time using and thinking about drugs, figuring out how to get them, and recovering from the drug's effects.
- **You've abandoned activities you used to enjoy,** such as hobbies, sports, and socializing, because of your drug use.
- **You continue to use drugs, despite knowing it's hurting you.** It's causing major problems in your life—blackouts, infections, mood swings, depression, paranoia—but you use anyway

Warning signs that a friend or family member is abusing drugs

Drug abusers often try to conceal their symptoms and downplay their problem. If you're worried that a friend or family member might be abusing drugs, look for the following warning signs:

Physical warning signs of drug abuse

- Bloodshot eyes, pupils larger or smaller than usual

- Changes in appetite or sleep patterns. Sudden weight loss or weight gain
- Deterioration of physical appearance, personal grooming habits
- Unusual smells on breath, body, or clothing
- Tremors, slurred speech, or impaired coordination

Behavioral signs of drug abuse

- Drop in attendance and performance at work or school
- Unexplained need for money or financial problems. May borrow or steal to get it.
- Engaging in secretive or suspicious behaviors
- Sudden change in friends, favorite hangouts, and hobbies
- Frequently getting into trouble (fights, accidents, illegal activities)

Psychological warning signs of drug abuse

- Unexplained change in personality or attitude
- Sudden mood swings, irritability, or angry outbursts
- Periods of unusual hyperactivity, agitation, or giddiness
- Lack of motivation; appears lethargic or “spaced out”
- Appears fearful, anxious, or paranoid, with no reason

When a loved one has a drug problem

If you suspect that a friend or family member has a drug problem, here are a few things you can do:

- **Speak up.** Talk to the person about your concerns, and offer your help and support, without being judgmental. The earlier addiction is treated, the better. Don't wait for your loved one to hit bottom! Be

prepared for excuses and denial by listing specific examples of your loved one's behavior that has you worried.

- **Take care of yourself.** Don't get so caught up in someone else's drug problem that you neglect your own needs. Make sure you have people you can talk to and lean on for support. And stay safe. Don't put yourself in dangerous situations.
- **Avoid self-blame.** You can support a person with a substance abuse problem and encourage treatment, but you can't force an addict to change. You can't control your loved one's decisions. Let the person accept responsibility for his or her actions, an essential step along the way to recovery for drug addiction.

Progression

Although the progression to substance dependence varies from person to person, one common pathway involves a progression through the following stages (Weiss & Mirin, 1987):

1. Experimentation. During the stage of experimentation, or occasional use, the drug temporarily makes users feel good, even euphoric. Users feel in control and believe they can stop at any time. 2. Routine use. During the next stage, a period of routine use, people begin to structure their lives around the pursuit and use of drugs. Denial plays a major role at this stage, as users mask the negative consequences of their behavior to themselves and others. Values change. What had formerly been important, such as family and work, comes to matter less than the drugs.

As routine drug use continues, problems mount. Users devote more resources to drugs. They ravage family bank accounts, seek "temporary" loans from friends and family for trumped-up reasons, and sell family heirlooms and jewelry for a fraction of their value. Lying and manipulation become a way of life to cover up the drug use. The husband sells the TV set

and forces the front door open to make it look like a burglary. The wife claims to have been robbed at knifepoint to explain the disappearance of a gold chain or engagement ring. Family relationships become strained as the mask of denial shatters and the consequences of drug abuse become apparent: days lost from work, unexplained absences from home, rapid mood shifts, depletion of family finances, failure to pay bills, stealing from family members, and missing family gatherings or children's birthday parties.

3. Addiction or dependence. Routine use becomes addiction or dependence when users feel powerless to resist drugs, either because they want to experience their effects or to avoid the consequences of withdrawal. Little or nothing else matters at this stage, as we saw in the case of Eugene with which we opened the chapter. Now let us examine the effects of different types of drugs of abuse and the consequences associated with their use and abuse.

Stages of Substance Abuse

Stage One: Experimentation

- The first stage, experimentation, is the voluntary use of alcohol or other drugs. Quite frequently, the person experimenting is trying to erase another problem. An older person may start drinking to cope with depression after losing a spouse. A teenager, angry about his parents' divorce, could start smoking marijuana or huffing inhalants. Experimentation may even include a husband taking his wife's prescription painkillers to cope with a back problem. The substance seems solve the problem. So the person takes more, and moves from experimentation to regular use, the next stage.

Stage Two: Regular Use

- Some people stay in the regular use stage indefinitely. They will not develop a problem, and stop by themselves. Others start using substances in a manner that is risky or hazardous to themselves or to

others. Risky behaviors include: smoking marijuana and driving; binge drinking (consuming more than the recommended amount of alcohol at one occasion); and unexplained violence, to one's self or another.

Stage Three: Risky Use

- When and how the transition from regular to risky use happens differs for every individual. So, what constitutes "risky behavior" by another person can be difficult to gauge. Just the same, if someone's behavior concerns you, say so. People can pass quickly from risky use to dependence.

Stage Four: Dependence

- Characteristics of dependence include: Repeated use of alcohol or other drugs that leads to failure to fulfill major responsibilities related to work, family, school or other roles. Or, repeatedly drinking or using drugs in situations that are physically hazardous, such as driving while intoxicated or using heavy machinery when intoxicated. Or repeated legal problems. Or any combination of these.
-
- Many dependent people are able to work, maintain family relationships and friendships, and limit their use of alcohol or other drugs to certain time periods, such as evenings or weekends.

Stage Five: Addiction

- The last phase of the spectrum of substance use problems is addiction. Addiction is a medical condition involving serious psychological and physical changes from repeated heavy use of alcohol, other drugs, or both.
 - *Symptoms include* uncontrollable alcohol or other drug craving, seeking, and use, that persists even in the face of negative consequences.
 -
 - *Addiction is a progressive illness.* If left untreated, it gets worse. It is also chronic, or long-standing (versus acute, or short-term).
 -

- *Addiction is a treatable illness.* Recovery rates for people who go through treatment are very similar to those who get treatment for other chronic diseases such as diabetes and asthma. There are a number of treatment methods and community resources, including outpatient or residential treatment programs and twelve-step groups. These approaches can be customized to fit the needs of the individual and family.

Basic facts of commonly abused drugs

MARIJUANA

Marijuana is usually rolled up in a cigarette called a joint or a nail. It can also be brewed as a tea or mixed with food, or smoked through a water pipe called a bong.

Cannabis¹ is number three of the top five substances which account for admissions to drug treatment facilities in the United States, at 16%. According to a National Household Survey on Drug Abuse, kids who frequently use marijuana are almost four times more likely to act violently or damage property. They are five times more likely to steal than those who do not use the drug.



Marijuana is often more potent today than it used to be. Growing techniques and selective use of seeds have produced a more powerful drug. As a result, there has been a sharp increase in the number of marijuana-related emergency room visits by young pot smokers.

Because a tolerance builds up, marijuana can lead users to consume stronger drugs to achieve the same high. When the effects start to wear off, the person may turn to more potent drugs to rid himself of the unwanted conditions that prompted him to take marijuana in the first place. Marijuana itself does not lead the person to the other drugs: people take drugs to get rid of unwanted situations or feelings. The drug (marijuana) masks the problem for a time (while the user is high). When the "high" fades, the problem, unwanted condition or situation returns more intensely than before. The user may then turn to stronger drugs since marijuana no longer "works."

SHORT-TERM EFFECTS:

Loss of coordination and distortions in the sense of time, vision and hearing, sleepiness, reddening of the eyes, increased appetite and relaxed muscles. Heart rate can speed up. In fact, in the first hour of smoking marijuana, a user's risk of a heart attack could increase fivefold. School performance is reduced through impaired memory and lessened ability to solve problems.



LONG-TERM EFFECTS:

Long-term use can cause psychotic symptoms. It can also damage the lungs and the heart, worsen the symptoms of bronchitis and cause coughing and wheezing. It may reduce the body's ability to fight lung infections and illness.

ALCOHOL

Alcohol depresses your central nervous system (brain and spinal cord), lowers inhibitions¹ and impairs judgment. Drinking large amounts can lead to a coma and even death. Mixing alcohol with medications or street drugs is extremely dangerous and can be fatal. Alcohol influences your brain and leads to a loss of coordination, slowed reflexes, distorted vision, memory lapses and blackouts. Teenage bodies are still growing and alcohol has a greater impact on young people's physical and mental well-being than on older people.



SHORT-TERM EFFECTS:

Feeling of warmth, flushed skin, impaired judgment, lack of coordination, slurred speech, memory and comprehension loss. Heavy drinking usually results in a "hangover," headache, nausea, anxiety, weakness, shakiness and sometimes vomiting.

LONG-TERM EFFECTS:

Tolerance to many of the unpleasant effects of alcohol and a resulting ability to drink more. This leads to a deteriorating physical condition that can include liver damage and increases the risk of heart disease. A pregnant woman may give birth to a baby with defects that affect the baby's heart, brain and other major organs. A person can become dependent on alcohol. If someone suddenly stops drinking, withdrawal symptoms may set in. They range from jumpiness, sleeplessness, sweating and poor appetite to convulsions and sometimes death. Alcohol abuse can also lead to violence and conflicts in one's personal relationships.

ECSTASY

Ecstasy is usually taken orally in pill, tablet or capsule form. Taking more than one at a time is called “bumping.”

Ecstasy is a synthetic (man-made) drug made in a laboratory. Makers may add anything they choose to the drug, such as caffeine, amphetamine¹ and even cocaine. Ecstasy is illegal and has effects similar to hallucinogens and stimulants. The pills are of different colors and are sometimes marked with cartoon-like images. Mixing Ecstasy with alcohol is extremely dangerous and can be lethal.



The stimulative effects of drugs such as Ecstasy enable the user to dance for long periods, and when combined with the hot, crowded conditions found at raves, can lead to extreme dehydration and heart or kidney failure.

SHORT-TERM EFFECTS:

Faintness, chills or sweating, muscle tension, impaired judgment, depression, blurred vision, sleep problems, false sense of affection, nausea, severe anxiety, drug craving, involuntary teeth clenching, confusion, paranoia.²

LONG-TERM EFFECTS:



Prolonged use causes long-lasting and perhaps permanent damage to the brain, affecting the person’s judgment and thinking ability.

“Ecstasy made me crazy. One day I bit glass, just like I would have bitten an apple. I had to have my mouth full of pieces of glass to realize what was happening to me. Another time I tore rags with my teeth for an hour.” —Anne

COCAINE & CRACK COCAINE

Cocaine and crack cocaine can be taken orally, through the nose (snorted), injected with a syringe or, in the case of crack, through inhalation of the fumes from heating it.

The terms used to describe ingestion include chewing, snorting, mainlining (injecting into a large vein) and smoking.

The word *cocaine* refers to the drug in a powder form (cocaine) and a crystal form (crack). It is made from the coca plant and, next to methamphetamine,¹ creates the greatest psychological dependence of any drug.



SHORT-TERM EFFECTS:

Cocaine causes a short-lived intense high that is immediately followed by the opposite—intense feelings of depression and edginess and a craving for more of the drug. People who use it often don't eat or sleep properly. They can experience greatly increased heart rate, muscle spasms and convulsions. The drug can make people feel paranoid, angry, hostile and anxious, even when they aren't high.

LONG-TERM EFFECTS:

In addition to those effects already mentioned, cocaine can cause irritability, mood disturbances, restlessness, paranoia and auditory (hearing) hallucinations. Tolerance to the drug develops so that more is needed to produce the same "high."

Coming down from the drug causes severe depression, which becomes deeper and deeper after each use. This can get so severe that a person will do almost anything to get the drug—even commit murder. And if he or she can't get cocaine, the depression can get so intense it can drive the addict to suicide.



CRYSTAL METH & METHAMPHETAMINE EFFECTS



Crystal meth and meth are inhaled, smoked or injected. Low doses are in pill form.

Crystal meth is a form of **methamphetamine** that resembles small fragments of glass or shiny blue-white rocks. On the street, it is known as “ice,” “crystal,” “glass” and other names. It is a highly powerful and addictive man-made stimulant that causes aggression and violent or psychotic behavior. Many users report getting hooked (addicted) from the first time they use it. It is one of the hardest drugs to treat.

SHORT-TERM EFFECTS:

Negative effects can include disturbed sleep patterns, hyperactivity, nausea, delusions of power, increased aggressiveness and irritability. Can cause decreased hunger and bring on weight loss. In higher doses has a greater “rush,” followed by increased agitation and sometimes violence. Other effects can include insomnia, confusion, hallucinations, anxiety and paranoia. Can cause convulsions leading to death.

LONG-TERM EFFECTS:



Increased heart rate and blood pressure, damage to blood vessels in the brain, leading to strokes or irregular heart beat and cardiovascular (involving the heart and blood vessels) collapse or death. Can cause liver, kidney and lung damage. Users may suffer brain damage, including memory impairment and an increasing inability to grasp abstract thoughts. Those who recover are usually subject to memory gaps and extreme mood swings.



"Crystal meth was my drug of choice, but there were others too—cheap, easy to get, easy to become addicted to and, of course, easy to use. I tried it once and BOOM! I was addicted. One of the main things that this affected was my music career. I had a great band and played great music and had great members who weren't only band members but best friends. That all changed when I started using meth." —**Brad**



INHALANTS

Inhalants include chemicals found in such household products as aerosol sprays, cleaning fluids, glue, paint, paint thinner, nail polish remover, amyl nitrite¹ and lighter fuel. They are sniffed or "huffed" (act of inhaling vapors).

Inhalants affect the brain. When substances or fumes are inhaled through the nose or mouth, they can cause permanent physical and mental

damage. They starve the body of oxygen and force the heart to beat irregularly and more rapidly. People who use inhalants can lose their sense of smell, suffer nausea and nosebleeds and may develop liver, lung and kidney problems. Continued use can lead to reduced muscle mass, tone and strength. Inhalants can make people unable to walk, talk and think normally. Much of the damage is caused to the brain tissue when the toxic fumes are sniffed straight into the sinus.²

SHORT-TERM EFFECTS:

In addition to the above, inhalants can kill a person by heart attack or suffocation as the inhaled fumes take the place of oxygen in the lungs and central nervous system. Someone on inhalants may also suddenly react with extreme violence.

LONG-TERM EFFECTS:

Can lead to muscle wasting and reduced muscle tone and strength. Can permanently damage the body and brain.

HEROIN

Heroin is usually injected, snorted or smoked. It is highly addictive. Heroin enters the brain rapidly but makes people think and react slowly, impairing their decision-making ability. It causes difficulty in remembering things.

Injecting the drug can create a risk of AIDS, hepatitis (liver disease) and other diseases caused by infected needles. These health problems can be passed on to sexual partners and newborns. Heroin is one of the three drugs most frequently involved in drug abuse deaths. Violence and crime are linked to its use.



SHORT-TERM EFFECTS:

Abusers experience clouded mental functioning, nausea and vomiting. Awareness of pain may be suppressed. Pregnant women can suffer spontaneous abortion. Cardiac (heart) functions slow down and breathing is severely slowed, sometimes to the point of death.

LONG-TERM EFFECTS:



Scarred and/or collapsed veins, bacterial infections of the blood vessels, heart valves, abscesses and other soft-tissue infections, and liver or kidney disease. Lung complications may result. Sharing of needles or fluids may result in hepatitis, AIDS and other blood-borne virus diseases.

LSD

LSD is sold in tablets, capsules or in liquid form. It is commonly added to absorbent paper and divided into small decorated squares. Each square is a dose.

LSD is still one of the most potent mood-changing chemicals and is derived from the extremely poisonous ergot fungus, a mold which grows on rye and other grains. Its effects are unpredictable. A tiny amount can produce



12 hours or more of effects.

SHORT-TERM EFFECTS:

Dilated pupils, higher body temperature, increased heart rate and blood pressure, sweating, loss of appetite, sleeplessness, dry mouth and tremors. People can experience severe, terrifying thoughts and feelings, fear of losing control, fear of insanity and death and feelings of despair while using LSD.

LONG-TERM EFFECTS:

Flashbacks, or recurrences, of an LSD "trip" can be experienced long after the drug is taken and its effect has apparently worn off. The "trip" itself usually begins to clear up after about 12 hours, but some users manifest long-lasting psychoses.



Specific Needs

Don't

- Attempt to punish, threaten, bribe, or preach.
- Try to be a martyr. Avoid emotional appeals that may only increase feelings of guilt and the compulsion to use drugs.
- Cover up or make excuses for the drug abuser, or shield them from the negative consequences of their behavior.
- Take over their responsibilities, leaving them with no sense of importance or dignity.
- Hide or throw out drugs.
- Argue with the person when they are high.
- Take drugs with the drug abuser.
- Feel guilty or responsible for another's behavior.

When to Seek Medical Care

If you recognize you have a substance abuse problem and want to quit, a doctor can refer you to community resources. A doctor also may prescribe medications to control cravings and withdrawal or help manage medical complications resulting from substance abuse. Let your doctor know what drugs you use and how you take them. Call your doctor if you recognize any of the following symptoms:

- Mild tremors or an alcohol withdrawal seizure not accompanied by hallucinations or confusion
- Jaundice (yellow skin and eyes)
- Increasing abdominal girth
- Leg swelling
- Cough that won't go away
- Continuing feelings of sadness or depression
- Pain at an injection site
- Fever

When to Go to the Hospital

If any of the following occur, call 911 or go to a hospital's emergency department immediately:

- Thoughts of harming yourself or others
- Chest pain, rapid heartbeat, difficulty breathing, or lightheadedness
- Severe abdominal pain
- Confusion or ongoing hallucinations
- Severe tremors or recurrent seizures
- Difficulty speaking, numbness, weakness, severe headache, visual changes, or trouble keeping balance

- Severe pain at an injection site (may be accompanied by redness, swelling, discharge, and fever)
- Dark, cola-colored urine
- Any suspicion that you were sexually assaulted while under the influence

Medical Treatment

Most substances abusers believe they can stop using drugs on their own, but a majority who try do not succeed. Research shows that long-term drug use alters brain function and strengthens compulsions to use drugs. This craving continues even after drug use stops.

Because of these ongoing cravings, the most important component of treatment is preventing relapse. Treating substance abuse depends on both the person and the substance being used. Behavioral treatment provides you with strategies to cope with your drug cravings and ways to avoid relapse. Your doctor may prescribe medications, such as nicotine patches and methadone, to control withdrawal symptoms and drug cravings.

Often, a drug user has an underlying mental disorder, one that increases risk for substance abuse. Such disorders must be treated medically and through counseling along with the drug abuse.

Warning signs of teen drug abuse

While experimenting with drugs doesn't automatically lead to drug abuse, early use is a risk factor for developing more serious drug abuse and addiction. Risk of drug abuse also increases greatly during times of transition, such as changing schools, moving, or divorce. The challenge for parents is to distinguish between the normal, often volatile, ups and downs of the teen years and the red flags of substance abuse. These include:

- Having bloodshot eyes or dilated pupils; using eye drops to try to mask these signs
- Skipping class; declining grades; suddenly getting into trouble at school
- Missing money, valuables, or prescriptions
- Acting uncharacteristically isolated, withdrawn, angry, or depressed
- Dropping one group of friends for another; being secretive about the new peer group
- Loss of interest in old hobbies; lying about new interests and activities
- Demanding more privacy; locking doors; avoiding eye contact; sneaking around

When your teen has a drug problem

Discovering your child uses drugs can generate fear, confusion, and anger in parents. It's important to remain calm when confronting your teen, and only do so when everyone is sober. Explain your concerns and make it clear that your concern comes from a place of love. It's important that your teen feels you are supportive.

Five steps parents can take:

- **Lay down rules and consequences.** Your teen should understand that using drugs comes with specific consequences. But don't make hollow threats or set rules that you cannot enforce. Make sure your spouse agrees with the rules and is prepared to enforce them.
- **Monitor your teen's activity.** Know where your teen goes and who he or she hangs out with. It's also important to routinely check potential hiding places for drugs—in backpacks, between books on a shelf, in DVD cases or make-up cases, for example. Explain to your teen that this lack of privacy is a consequence of him or her having been caught using drugs.

- **Encourage other interests and social activities.** Expose your teen to healthy hobbies and activities, such as team sports and afterschool clubs.
- **Talk to your child about underlying issues.** Drug use can be the result of other problems. Is your child having trouble fitting in? Has there been a recent major change, like a move or divorce, which is causing stress?
- **Get help.** Teenagers often rebel against their parents but if they hear the same information from a different authority figure, they may be more inclined to listen. Try a sports coach, family doctor, therapist, or drug counselor.

Specific Tests, Equipment, Medications, Etc

Medications

You may take medicines to help you quit or to help you overcome withdrawal symptoms. Medicines often are used for addiction to opiates drugs like heroin or certain painkillers. Medicines that can help you include methadone (such as Dolophine) or Naltrexone (such as ReVia).

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. Acamprosate 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.

Treatment Programs

Treatment programs can be outpatient, inpatient, or residential. They offer similar therapies. Your treatment team can help you decide which type of program is best for you.

- In outpatient treatment, you regularly go to a mental health clinic, a counselor's office, a hospital clinic, or a local health department for treatment.
- In inpatient treatment, you stay at a hospital and have therapies during the day or evening. You most likely will then go to outpatient therapy.
- Residential treatment provides a place for you to live for 6 months or more while you recover. You get therapy and 24-hour care.

Some treatment programs give rewards, called vouchers, when you stay off drugs. The rewards may get bigger when you go for a long time without drugs.

Many programs give regular drug tests while you go through treatment. Knowing that you will be tested can make you more likely to resist your cravings.

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.

TR Implications

Prevention

Substance abuse may start in childhood or adolescence. Abuse prevention efforts in schools and community settings now focus on school-age groups. Programs seek to increase communication between parents and their children, to teach resistance skills, and to correct children's misperceptions about cigarettes, alcohol, and drugs and the consequences of their use. Most

importantly, officials seek to develop, through education and the media, an environment of social disapproval from children's peers and families.

Treatment

Treatment for drug abuse or dependence usually includes group therapy, one or more types of counseling, and drug education. A 12-step program is often part of treatment and continues afterward as part of your recovery.

Treatment doesn't just deal with drugs. It helps you take control of your life so you don't have to depend on drugs. You'll learn good reasons to quit drugs. Staying drug-free is a lifelong process that takes commitment and effort.

Seeking treatment

You might start with your family doctor, or your doctor may recommend that you enter a treatment facility. A friend could bring you to a self-help group, such as Narcotics Anonymous, or you might walk into a clinic that deals with drug abuse.

You may have a treatment team to help you. This team may include a psychologist or psychiatrist, counselors, doctors, social workers, nurses, and a case manager. A case manager helps plan and manage your treatment.

You may be asked questions about your drug use, health problems, work, and living situation. Be open and honest to get the best treatment possible. Your team may write a plan, which includes your treatment goals and ways to reach those goals. This helps you stay on track.

Therapy

Treatment for a drug problem usually involves one or more types of therapy.

- In group therapy, you talk about your recovery with other people who are trying to quit.
- In cognitive-behavioral therapy (CBT), you learn to change the thoughts and actions that make you more likely to use drugs.
- With motivational interviewing (MI), you resolve mixed feelings you have about quitting and getting treatment.
- Motivational enhancement therapy (MET) uses motivational interviewing to help you find motivation to quit and get you started toward recovery.
- Couples or family counseling can help you to stop using drugs, stay drug-free, and improve your relationships with your partner and family.
- Recreation therapy will help to build autonomy, increase self confidence, resilience, and positive coping strategies in individuals

Treatment usually includes going to a support group, such as going to Narcotics Anonymous (NA) meetings. Your family members might also want to attend a support group such as Nar-Anon.

What to think about

People with drug problems often have other problems. They may need other treatments, or other resources may be available to help them with the drug problem.

- If you have a drug problem and a mental health problem, you will need treatment for both problems. Doctors call this a dual diagnosis.
- Older adults also may have drug problems because of misuse of prescription medicines such as painkillers or sleeping pills.
- Drug abuse in the military is like drug abuse in the general population. But there may be other concerns, such as post-traumatic stress disorder or military sexual trauma.

- Some people are sent to drug treatment because of a court decision. This may happen if you have a drug problem and you commit a crime. A court may require treatment and then keep track of your progress. Treatment often is available in prison.

Leisure Education

- Have patients analyze their favorite activities
 - Those who have a substance abuse haven't done what they enjoy to do in a very long time
- Unstructured leisure activities helps them get a natural high
- Ideas for leisure education activities
 - www.dannypettrey.com
 - www.recreationaltherapy.com

TR's role in treating substance abuse

Drug and alcohol abuse are widespread in the USA. Therapeutic recreation specialists have been employed in drug abuse treatment programmes, yet the role of therapeutic recreation (TR) may not be fully realized. With the current emphasis on treating the whole person and the need to change his or her lifestyle, TR can make a major contribution by addressing the very attitudes and behaviours that lead to substance abuse. The ability to experience fun and pleasure and feel capable and in control are often lacking in the drug abuser. Through a well-planned therapeutic recreation programme, emphasizing the leisure education component of the TR service model and opportunities for recreation participation, drug abusers can also be helped to reach these goals. Therapeutic recreation encourages participation in non-drug activities that help abusers cope and/or obtain enjoyable states, reducing reliance on drugs for the same effect. Ways in

which it can facilitate the drug abuser's ability, in a natural environment, to address problems associated with drug abuse, practise new learning and pursue positive alternative ways of behaving, are discussed.

Resources

Getting help for drug abuse and drug addiction

Finding help and support for drug addiction

- Visit a Narcotics Anonymous meeting in your area. See Resources & References below.
- Call **1-800-662-HELP in the U.S.** to reach a free referral helpline from the Substance Abuse and Mental Health Services Administration.

Recognizing that you have a problem is the first step on the road to recovery, one that takes tremendous courage and strength. Facing your addiction without minimizing the problem or making excuses can feel frightening and overwhelming, but recovery is within reach. If you're ready to make a change and willing to seek help, you can overcome your addiction and build a satisfying, drug-free life for yourself.

Support is essential to addiction recovery

Don't try to go it alone; it's all too easy to get discouraged and rationalize "just one more" hit or pill. Whether you choose to go to rehab, rely on self-help programs, get therapy, or take a self-directed treatment approach, support is essential. Recovering from drug addiction is much easier when you have people you can lean on for encouragement, comfort, and guidance. Support can come from:

- family members

- close friends
- therapists or counselors
- other recovering addicts
- healthcare providers
- people from your faith community

Recovery is possible

It is not enough to “just say no”—as the 1980s slogan suggested. Instead, you can protect (and heal) yourself from addiction by saying “yes” to other things. Cultivate diverse interests that provide meaning to your life.

Understand that your problems usually are transient, and perhaps most importantly, acknowledge that life is not always supposed to be pleasurable

For More Information

Web Links

The National Institute on Drug Abuse (NIDA) part of the National Institutes of Health (NIH) offers several reports on substance abuse.

Heroin Abuse and Addiction: Research Report

Cocaine Abuse and Addiction: Research Report

Methamphetamine Abuse and Addiction: Research Report

Nicotine Addiction: Research Report

Preventing Drug Use Among Children and Adolescents: A Research Based Guide

Principles of Drug Addiction Treatment: A Research Based Guide

The Center for Health Communication of the Harvard School of Public Health offers A Guide for Teens: Does Your Friend Have An Alcohol or Other Drug Problem?

Drugfree.org

OUR MISSION

We reduce substance abuse among adolescents by supporting families and engaging with teens.

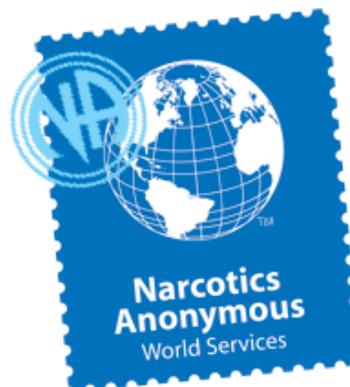
HOW WE DO IT:

- **We educate parents** through our communication campaigns on teen substance abuse and connect them to our practical programs for prevention and treatment.
- **We help families** prevent and deal with teen substance abuse and support those impacted by addiction.
- **We inspire young people** to make positive decisions to stay healthy and avoid drugs and alcohol.
- **We help build healthy communities** through advocacy for youth prevention funding and adolescent treatment/recovery support.

Information about NA

Narcotics Anonymous is a global, community-based organization with a multi-lingual and multicultural membership. NA was founded in 1953, and our membership growth was minimal during our initial twenty years as an organization. Since the publication of our Basic Text in 1983, the number of members and meetings has increased dramatically. Today, NA members hold more than 61,000 meetings weekly in 129 countries. We offer recovery from the effects of addiction through working a twelve-step

program, including regular attendance at group meetings. The group atmosphere provides help from peers and offers an ongoing support network for addicts who wish to pursue and maintain a drug-free lifestyle. Our name, Narcotics Anonymous, is not meant to imply a focus on any particular drug; NA's approach makes no distinction between drugs including alcohol. Membership is free, and we have no affiliation with any organizations outside of NA including governments, religions, law enforcement groups, or medical and psychiatric associations. Through all of our service efforts and our cooperation with others seeking to help addicts, we strive to reach a day when every addict in the world has an opportunity to experience our message of recovery in his or her own language and culture.



Fact Sheets/Handouts

Do you have addiction?

Determining whether you have addiction isn't completely straightforward. And admitting it isn't easy, largely because of the stigma and shame associated with addiction. But acknowledging the problem is the first step toward recovery.

A "yes" answer to any of the following three questions suggests you might have a problem with addiction and should—at the very least—consult a health care provider for further evaluation and guidance.

- Do you use more of the substance or engage in the behavior more often than in the past?
- Do you have withdrawal symptoms when you don't have the substance or engage in the behavior?

- Have you ever lied to anyone about your use of the substance or extent of your behavior?

New insights into a common problem

Nobody starts out intending to develop an addiction, but many people get caught in its snare. Consider the latest government statistics:

- Nearly 23 million Americans—almost one in 10—are addicted to alcohol or other drugs.
- More than two-thirds of people with addiction abuse alcohol.
- The top three drugs causing addiction are marijuana, opioid (narcotic) pain relievers, and cocaine.

In the 1930s, when researchers first began to investigate what caused addictive behavior, they believed that people who developed addictions were somehow morally flawed or lacking in willpower. Overcoming addiction, they thought, involved punishing miscreants or, alternately, encouraging them to muster the will to break a habit.

The scientific consensus has changed since then. Today we recognize addiction as a chronic disease that changes both brain structure and function. Just as cardiovascular disease damages the heart and diabetes impairs the pancreas, addiction hijacks the brain. This happens as the brain goes through a series of changes, beginning with recognition of pleasure and ending with a drive toward compulsive behavior.

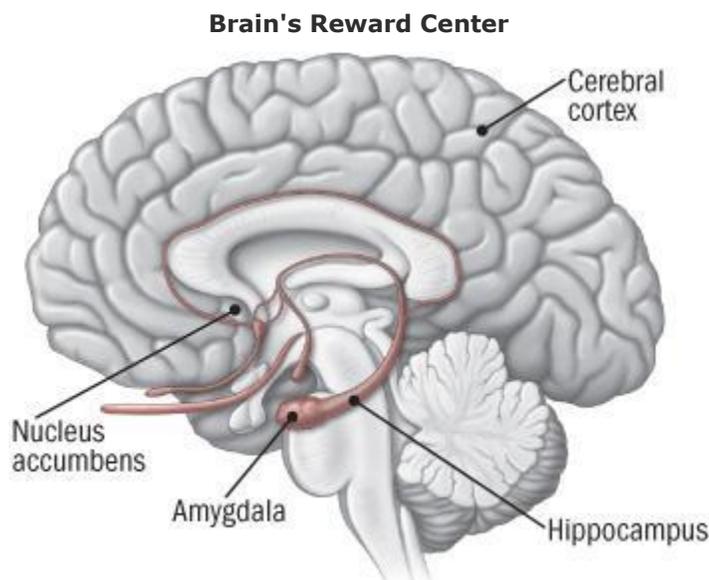
Pleasure principle

The brain registers all pleasures in the same way, whether they originate with a psychoactive drug, a monetary reward, a sexual encounter, or a satisfying meal. In the brain, pleasure has a distinct signature: the release

of the neurotransmitter dopamine in the nucleus accumbens, a cluster of nerve cells lying underneath the cerebral cortex (see illustration). Dopamine release in the nucleus accumbens is so consistently tied with pleasure that neuroscientists refer to the region as the brain's pleasure center.

All drugs of abuse, from nicotine to heroin, cause a particularly powerful surge of dopamine in the nucleus accumbens. The likelihood that the use of a drug or participation in a rewarding activity will lead to addiction is directly linked to the speed with which it promotes dopamine release, the intensity of that release, and the reliability of that release.

Even taking the same drug through different methods of administration can influence how likely it is to lead to addiction. Smoking a drug or injecting it intravenously, as opposed to swallowing it as a pill, for example, generally produces a faster, stronger dopamine signal and is more likely to lead to drug misuse.



Addictive drugs provide a shortcut to the brain's reward system by flooding the nucleus accumbens with dopamine. The hippocampus lays down memories of this rapid sense of satisfaction, and the amygdala creates a conditioned response to certain stimuli

Warning Signs of Commonly Abused Drugs

- **Marijuana:** Glassy, red eyes; loud talking, inappropriate laughter followed by sleepiness; loss of interest, motivation; weight gain or loss.
- **Depressants (including Xanax, Valium, GHB):** Contracted pupils; drunk-like; difficulty concentrating; clumsiness; poor judgment; slurred speech; sleepiness.
- **Stimulants (including amphetamines, cocaine, crystal meth):** Dilated pupils; hyperactivity; euphoria; irritability; anxiety; excessive talking followed by depression or excessive sleeping at odd times; may go long periods of time without eating or sleeping; weight loss; dry mouth and nose.
- **Inhalants (glues, aerosols, vapors):** Watery eyes; impaired vision, memory and thought; secretions from the nose or rashes around the nose and mouth; headaches and nausea; appearance of intoxication; drowsiness; poor muscle control; changes in appetite; anxiety; irritability; lots of cans/aerosols in the trash.
- **Hallucinogens (LSD, PCP):** Dilated pupils; bizarre and irrational behavior including paranoia, aggression, hallucinations; mood swings; detachment from people; absorption with self or other objects, slurred speech; confusion.
- **Heroin:** Contracted pupils; no response of pupils to light; needle marks; sleeping at unusual times; sweating; vomiting; coughing, sniffing; twitching; loss of appetite

5 Myths about Drug Abuse and Addiction

MYTH 1: Overcoming addiction is a simply a matter of willpower. You can stop using drugs if you really want to. Prolonged exposure to drugs alters the brain in ways that result in powerful cravings and a compulsion to

use. These brain changes make it extremely difficult to quit by sheer force of will.

MYTH 2: Addiction is a disease; there's nothing you can do about it.

Most experts agree that addiction is a brain disease, but that doesn't mean you're a helpless victim. The brain changes associated with addiction can be treated and reversed through therapy, medication, exercise, and other treatments.

MYTH 3: Addicts have to hit rock bottom before they can get better.

Recovery can begin at any point in the addiction process—and the earlier, the better. The longer drug abuse continues, the stronger the addiction becomes and the harder it is to treat. Don't wait to intervene until the addict has lost it all.

MYTH 4: You can't force someone into treatment; they have to want help.

Treatment doesn't have to be voluntary to be successful. People who are pressured into treatment by their family, employer, or the legal system are just as likely to benefit as those who choose to enter treatment on their own. As they sober up and their thinking clears, many formerly resistant addicts decide they want to change.

MYTH 5: Treatment didn't work before, so there's no point trying again.

Recovery from drug addiction is a long process that often involves setbacks. Relapse doesn't mean that treatment has failed or that you're a lost cause. Rather, it's a signal to get back on track, either by going back to treatment or adjusting the treatment approach.

Outlook

Costs to society

- In 1992, officials estimated that alcohol and drug abuse in the US cost \$246 billion. That figure did not include the health care costs related to tobacco.

- **Crime:** More than half the economic cost of alcohol and drugs is due to crime. A substance abuser is 18 times more likely to be involved in criminal activity than someone in the general population. Many violent crimes have been linked to the mind-altering effects of drugs. Substance abusers often commit thefts to support their drug habits. Drugs and alcohol have been linked to domestic violence and sexual assault. At colleges, 75% of date rapes are alcohol-related. Among jailed sex offenders, 43% say they were under the influence of drugs or alcohol at the time of their crime.
- **Disease:** Most abused substances have harmful health effects. For some substances, such as tobacco, effects are caused by long-term use. For other drugs, a single use can cause significant disease.
- **Behavior:** In addition to their direct effects on health, drugs produce other indirect effects. Many drugs lessen inhibitions and increase the likelihood that a person will participate in risky behavior. Studies show that the use of alcohol and drugs among teenagers increases chances for teen pregnancy and contracting HIV/AIDS or other sexually transmitted diseases. Any injected drug is associated with contracting HIV/AIDS and hepatitis B and C.
- **Trauma:** Up to 75% of injured people treated at emergency departments test positive for illicit or prescription drugs. Alcohol is strongly associated with both intentional and unintentional injury. Drug use also puts people at risk of violence. Nearly half of assault victims are cocaine users.

Facts and figures

The bare facts

We know what can and needs to be done to help reduce the burden of psychoactive substance use. Therefore, WHO is committed to assisting

countries in the development, organization, monitoring and evaluation of treatment and other services.

- The harmful use of alcohol results in 3.3 million deaths each year.
- On average every person in the world aged 15 years or older drinks 6.2 litres of pure alcohol per year.
- Less than half the population (38.3%) actually drinks alcohol, this means that those who do drink consume on average 17 litres of pure alcohol annually.
- At least 15.3 million persons have drug use disorders.
- Injecting drug use reported in 148 countries, of which 120 report HIV infection among this population



Professionalism

The National Institute on Drug Abuse (NIDA) leads the Nation in scientific research on the health aspects of drug abuse and addiction. It supports and conducts research across a broad range of disciplines, including genetics, functional neuroimaging, social neuroscience, prevention, medication and behavioral therapies, and health services. It then disseminates the results of that research to significantly improve prevention and treatment and to inform policy as it relates to drug abuse and addiction. Additional information is available at drugabuse.gov or by calling 301-443-1124.

National Institute on Alcohol Abuse and Alcoholism (NIAAA)

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) provides leadership in the national effort to reduce alcohol-related problems by conducting and supporting research in a wide range of scientific areas, including genetics, neuroscience, epidemiology, health risks and benefits of alcohol consumption, prevention, and treatment; coordinating and collaborating with other research institutes and Federal programs on alcohol-related issues; collaborating with international, national, State, and local institutions, organizations, agencies, and programs engaged in alcohol-related work; and translating and disseminating research findings to healthcare providers, researchers, policymakers, and the public. Additional information is available at www.niaaa.nih.gov or by calling 301-443-3860.

National Institute of Mental Health (NIMH)

The mission of National Institute of Mental Health (NIMH) is to transform the understanding and treatment of mental illnesses through basic and clinical research, paving the way for prevention, recovery, and cure. In support of this mission, NIMH generates research and promotes research training to fulfill the following four objectives: (1) promote discovery in the brain and behavioral sciences to fuel research on the causes of mental disorders; (2) chart mental illness trajectories to determine when, where, and how to intervene; (3) develop new and better interventions that incorporate the diverse needs and circumstances of people with mental illnesses; and (4) strengthen the public health impact of NIMH-supported research. Additional information is available at nimh.nih.gov or by calling 301-443-4513.

Center for Substance Abuse Treatment (CSAT)

The Center for Substance Abuse Treatment (CSAT), a part of the Substance Abuse and Mental Health Services Administration (SAMHSA), is responsible for supporting treatment services through a block grant program, as well as disseminating findings to the field and promoting their adoption. CSAT also operates the 24-hour National Treatment Referral Hotline (1-800-662-HELP), which offers information and referral services to people seeking treatment programs and other assistance. CSAT publications are available through SAMHSA's Store (store.samhsa.gov). Additional information about CSAT can be found on SAMHSA's Web site at www.samhsa.gov/about-us/who-we-are/offices-centers/csat.

Selected NIDA Educational Resources on Drug Addiction Treatment

The following are available from the [NIDA DrugPubs](#) Research Dissemination Center, the National Technical Information Service (NTIS), or the Government Printing Office (GPO). To order, refer to the *DrugPubs* (877-NIDANIH [643-2644]), NTIS (1-800-553-6847), or GPO (202-512-1800) number provided with the resource description.

Blending products. NIDA's Blending Initiative—a joint venture with SAMHSA and its nationwide network of Addiction Technology Transfer Centers (ATTCs)—uses "Blending Teams" of community practitioners, SAMHSA trainers, and NIDA researchers to create products and devise strategic dissemination plans for them. Completed products include those that address the value of buprenorphine therapy and onsite rapid HIV testing in community treatment programs; strategies for treating prescription opioid dependence;

and the need to enhance healthcare workers' proficiency in using tools such as the Addiction Severity Index (ASI), motivational interviewing, and motivational incentives. For more information on Blending products, please visit NIDA's Web site at drugabuse.gov/blending-initiative.

Addiction Severity Index. Provides a structured clinical interview designed to collect information about substance use and functioning in life areas from adult clients seeking drug abuse treatment. For more information on using the ASI and to obtain copies of the most recent edition, please visit triweb.tresearch.org/index.php/tools/download-asiinstruments-manuals/.

Drugs, Brains, and Behavior: The Science of Addiction (Reprinted 2010). This publication provides an overview of the science behind the disease of addiction. Publication #NIH 10-5605. Available online at drugabuse.gov/publications/science-addiction.

Seeking Drug Abuse Treatment: Know What To Ask (2011). This lay-friendly publication offers guidance in seeking drug abuse treatment and lists five questions to ask when searching for a treatment program. NIDA Publication #12-7764. Available online at drugabuse.gov/publications/seeking-drug-abuse-treatment.

Principles of Drug Abuse Treatment for Criminal Justice Populations: A Research-Based Guide (Revised 2012). Provides 13 essential treatment principles and includes resource information and answers to frequently asked questions. NIH Publication No.: 11-5316. Available online at nida.nih.gov/PODAT_CJ.

NIDA DrugFacts: Treatment Approaches for Drug Addiction (Revised 2009). This is a fact sheet covering research findings on effective treatment approaches for drug abuse and addiction. Available online at drugabuse.gov/publications/drugfacts/treatment-approaches-drugaddiction.

Alcohol Alert (published by NIAAA). This is a quarterly bulletin that disseminates important research findings on alcohol abuse and alcoholism. Available online at www.niaaa.nih.gov/publications/journals-and-reports/alcohol-alert.

Helping Patients Who Drink Too Much: A Clinicians's guide (published by NIAAA). This booklet is written for primary care and mental health clinicians and provides guidance in screening and managing alcohol-dependent patients. Available online at pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.htm

Research Report Series: Therapeutic Community (2002). This report provides information on the role of residential drug-free settings and their role in the treatment process. NIH Publication #02-4877. Available online at drugabuse.gov/publications/research-reports/therapeutic-community.

Initiatives Designed to Move Treatment Research into Practice

Clinical Trials Network

Assessing the real-world effectiveness of evidence-based treatments is a crucial step in bringing research to practice. Established in 1999, NIDA's National Drug Abuse Treatment Clinical Trials Network (CTN) uses community settings with diverse patient populations and conditions to adjust and test protocols to meet the practical needs of addiction treatment. Since its inception, the CTN has tested pharmacological and behavioral interventions for drug abuse and addiction, along with common co-occurring conditions (e.g., HIV and PTSD) among various target populations, including adolescent drug abusers, pregnant drug-abusing women, and Spanish-speaking patients. The CTN has also tested prevention strategies in drug-abusing groups at high risk for HCV and HIV and has become a key element of NIDA's multipronged approach to move promising science-based drug addiction treatments rapidly into community settings. For more information on the CTN, please visit drugabuse.gov/CTN/Index.htm.

Criminal Justice-Drug Abuse Treatment Studies

NIDA is taking an approach similar to the CTN to enhance treatment for drug-addicted individuals involved with the criminal justice system through Criminal Justice-Drug Abuse Treatment Studies (CJ-DATS). Whereas NIDA's CTN has as its overriding mission the improvement of the quality of drug abuse treatment by moving innovative approaches into the larger community, research supported through CJ-DATS is designed to effect change by bringing new treatment models into the criminal justice system and thereby improve outcomes for offenders with substance use disorders. It seeks to achieve better integration of drug abuse treatment with other public health and public safety forums and represents a collaboration among NIDA; SAMHSA; the Centers for Disease Control and Prevention (CDC); Department of Justice agencies; and a host of drug treatment, criminal justice, and health and social service professionals.

Blending Teams

Another way in which NIDA is seeking to actively move science into practice is through a joint venture with SAMHSA and its nationwide network of Addiction Technology Transfer Centers (ATTCs). This process involves the collaborative efforts of community treatment practitioners, SAMHSA trainers, and NIDA researchers, some of whom form "Blending Teams" to create products and devise strategic dissemination plans for them.

Through the creation of products designed to foster adoption of new treatment strategies, Blending Teams are instrumental in getting the latest evidence-based tools and practices into the hands of treatment professionals. To date, a number of products have been completed. Topics have included increasing awareness of the value of buprenorphine therapy and enhancing healthcare workers' proficiency in using tools such as the ASI, motivational interviewing, and motivational incentives. For more information on Blending products, please visit NIDA's Web site at nida.nih.gov/blending.

Other Federal Resources

NIDA DrugPubs Research Dissemination Center. NIDA publications and treatment materials are available from this information source. Staff provide assistance in English and Spanish, and have TTY/TDD capability. Phone: 877-NIDA-NIH (877-643-2644); TTY/TDD: 240-645-0228; fax: 240-645-0227; e-mail: drugpubs@nida.nih.gov; Web site: drugpubs.drugabuse.gov.

The National Registry of Evidence-Based Programs and Practices. This database of interventions for the prevention and treatment of mental and substance use disorders is maintained by SAMHSA and can be accessed at nrepp.samhsa.gov.

SAMHSA's Store has a wide range of products, including manuals, brochures, videos, and other publications. Phone: 800-487-4889; Web site: store.samhsa.gov.

The National Institute of Justice. As the research agency of the Department of Justice, the National Institute of Justice (NIJ) supports research, evaluation, and demonstration programs relating to drug abuse in the context of crime and the criminal justice system. For information, including a wealth of publications, contact the National Criminal Justice Reference Service at 800-851-3420 or 301-519-5500; or visit nij.gov.

Clinical Trials. For more information on federally and privately supported clinical trials, please visit clinicaltrials.gov.

References

<http://www.helpguide.org/harvard/how-addiction-hijacks-the-brain.htm>

<http://www.helpguide.org/articles/addiction/drug-abuse-and-addiction.htm#top>

<http://www.webmd.com/mental-health/addiction/substance-abuse?page=2>

<http://www.drugabuse.gov/publications/drugfacts/understanding-drug-abuse-addiction>

<http://www.drugfreeworld.org/drugfacts/drugs/basic-facts-about-commonly-abused-drugs.html>

<http://www.helpguide.org/articles/addiction/drug-abuse-and-addiction.htm>

http://www.csun.edu/~hcpsy002/0135128978_ch9.pdf

<http://www.drugabuse.gov/publications/drugfacts/treatment-approaches-drug-addiction>

<http://www.adsgc.org/subabuse.htm>

<http://www.cabdirect.org/abstracts/19921800515.html;jsessionid=C7198C86A271186670DFA52A8834F566>

<http://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/resources>