

Methamphetamine II

FACT SHEET

What are stimulants?

What is methamphetamine?

Medical uses/issues

Look-alike stimulants

The path to healing



What are stimulants?

As the name suggests, stimulants (uppers) are a class of drugs that enhance brain activity -- they tend to cause an increase in alertness, attention, and energy that is accompanied by elevated blood pressure and increased heart rate and respiration. Stimulants were used historically to treat asthma and other respiratory problems, obesity, and a variety of neurological disorders.

Some people use stimulants to counteract the drowsiness or “down” feeling caused by sleeping pills or alcohol. This up/down cycle is extremely hard on the body and dangerous. **Methamphetamine, amphetamines, cocaine, and caffeine are all stimulants belonging to this class of drugs.**

What is methamphetamine?

Methamphetamine is a powerfully addictive stimulant that dramatically affects the central nervous system. The drug is made easily in clandestine laboratories with relatively inexpensive over-the-counter ingredients. These factors combine to make methamphetamine a drug with high potential for widespread abuse.

Many people report a psychological dependency, a feeling that the drug is essential to their normal functioning. These users frequently continue to use methamphetamines to avoid the “down” mood they get when the drug’s effects wear off. In addition, people who use methamphetamines quickly develop a tolerance requiring them to take larger doses to get the same initial effect.

Methamphetamine is a white, odorless, bitter-tasting crystalline powder that easily dissolves in water or alcohol. The drug was developed early in this century and was used originally in nasal decongestants and bronchial inhalers. **Methamphetamine's chemical structure is similar to that of amphetamine, but it has more pronounced effects on the central nervous system.** Like amphetamine, it causes increased activity, decreased appetite, and a general sense of well-being. The effects of methamphetamine can last 6 to 8 hours. After the initial "rush," there is typically a state of high agitation that in some individuals can lead to violent behavior.

Medical uses/issues

Methamphetamine is a Schedule II stimulant, which means it has a high potential for abuse and is available only through a prescription that cannot be refilled. Stimulants are prescribed for the treatment of only a few health conditions, including narcolepsy (a rare disorder marked by uncontrolled sleep episodes), attention-deficit hyperactivity disorder, and depression that has not responded to other treatments. Stimulants may be used as appetite suppressants for short-term treatment of obesity, and they also may be used for patients with asthma who do not respond to other medications – but these medical uses are limited.



□ Effects of stimulants

Methamphetamines increase heart and breathing rates and blood pressure, dilate pupils, and decrease appetite. In addition, the user can experience a dry mouth, sweating, headache, blurred vision, dizziness and sleeplessness. Extremely high doses can cause people to flush or become pale; they can cause a rapid or irregular heartbeat, tremors, loss of coordination, and even physical collapse. An amphetamine injection creates a sudden increase in blood pressure that can cause death from stroke, very high fever, heart failure, or lethal seizures.

People who use large amounts of methamphetamines over a long period of time also can develop a methamphetamine psychosis, i.e., seeing, hearing, and feeling things that do not exist (hallucinations), having irrational thoughts or beliefs (delusions), and feeling as though people are out to get them (paranoia). People in this extremely suspicious state frequently exhibit bizarre--sometimes violent--behavior. Users who inject amphetamines intravenously can get serious and life-threatening infections from nonsterile equipment or self-prepared solutions that are contaminated.

□ Stimulants affect on the brain

Stimulants, such as dextroamphetamine (Dexedrine) and methylphenidate (Ritalin), have chemical structures that are similar to a family of key brain neurotransmitters called monoamines, which include norepinephrine and dopamine. Stimulants increase the amount of these chemicals in the brain. This, in turn, increases blood pressure and heart rate, constricts blood vessels, increases blood glucose, and opens up the pathways of the respiratory system. In addition, the increase in dopamine is associated with a sense of euphoria that can accompany the use of these drugs.

□ Use with other medications

Stimulants should not be used with other medications except when the patient is under close supervision of a physician. For example, a stimulant may be prescribed to a patient taking an antidepressant. However, health care providers and patients should be mindful that antidepressants enhance the effects of a stimulant. **Patients also should be aware that stimulants should not be mixed with over-the-counter cold medicines that contain decongestants, since this combination of drugs may cause their blood pressure to become dangerously high or lead to irregular heart rhythms.**

Long-term heavy use of methamphetamines can lead to malnutrition, skin disorders, ulcers, and various diseases that come from vitamin deficiencies. Lack of sleep, weight loss, and depression also result from regular use. Frequent use of large amounts of methamphetamines can produce brain damage that results in speech and thought disturbances.

Look-alike stimulants

Look-alike stimulants are drugs manufactured to look like real amphetamines and mimic their effects. The drugs usually contain varying amounts of caffeine, ephedrine, and phenylpropanolamine. These three legal substances are weak stimulants and often are found in over-the-counter preparations, such as diet pills and decongestants.

□ Background

More recently, newer drugs called “act-alikes” have been manufactured to avoid new state laws that prohibit look-alikes. The act-alikes contain the same ingredients as the look-alikes but don't physically resemble any prescription or over-the-counter drugs. These drugs are sold on the street as “speed” and “uppers” and are expensive, even though they are not as strong as amphetamines. They often are sold to young people who are told they are legal, safe, and harmless. This is one reason they are being increasingly abused.

□ Effects of look-alikes

Some negative effects of look-alikes, especially when taken in large quantities, are similar to the effects of amphetamines. These effects include anxiety, restlessness, weakness, throbbing headache, difficulty breathing, and a rapid heartbeat. **There have been several reports of severe high blood pressure, leading to cerebral hemorrhaging and death.** Often, in an emergency, look-alike drug overdose cases are misidentified by physicians and poison control centers. This can cause a problem in determining the proper treatment. One of the greatest dangers is that these drugs are readily available and are being used by young people and others who do not normally abuse drugs. **Once people start using these drugs, they are at high risk for using other drugs.**

Because look-alikes are not as strong as real amphetamines, they are extremely dangerous for people who--deliberately or accidentally--take the same amount of real amphetamines as they would take of the look-alikes. For example, people who buy look-alikes on the street may unknowingly buy real amphetamines and take enough to cause an overdose.



The path to healing

At this time the most effective treatments for methamphetamine addiction are cognitive behavioral interventions. These approaches are designed to help modify the patient's thinking, expectancies, and behaviors and to increase skills in coping with various life stressors. Methamphetamine recovery support groups also appear to be effective adjuncts to behavioral interventions that can lead to long-term recovery.



Methamphetamine recovery support groups also appear to be effective adjuncts to behavioral interventions that can lead to long-term recovery.

There are currently no particular pharmacological treatments for dependence on amphetamine or amphetamine-like drugs such as methamphetamine. Antidepressant medications are helpful in combating the depressive symptoms frequently seen in methamphetamine users who recently have become abstinent.

There are established protocols that Rimrock's physicians use in treating individuals who have had a methamphetamine overdose. **Because hyperthermia and convulsions are common and often fatal complications of such overdoses, detoxification treatments focus on the immediate physical symptoms.**

Acute methamphetamine intoxication should be handled by observation in a safe, medically supervised environment. In cases of extreme excitement or panic, treatment with anti-anxiety agents such as benzodiazepines has been helpful, and in cases of methamphetamine-induced psychoses, short-term use of neuroleptics has also proven successful.

For further information on Rimrock Foundation's treatment of methamphetamine abuse, call Barbara Hansen, Admissions Supervisor at 1-800-227-3953 or 1-406-248-3175, or visit our website at www.rimrock.org. For more educational information on stimulant abuse, contact the Rimrock Foundation Library at the above numbers.

Disclaimer: This Fact Sheet is designed for educational purposes only. The information contained herein is not intended to substitute for informed medical advice or training. This information should not be used to diagnose or treat a health problem without consulting a qualified healthcare provider.