

# Methamphetamine

Methamphetamine (henceforth referred to as "meth") is a synthetic drug illegally produced and sold with a high potential for abuse and dependence. A derivative of amphetamine, meth was first developed in the early 20th century for use in nasal decongestants, bronchial inhalers, and in the treatment of narcolepsy and obesity. In the 1970s meth became a Schedule II drug, classifying it as a drug with little medical use and high potential for abuse.

Despite its classification and illegal status, meth has continued to be both produced and sold. In the 1980s a powerful form of meth that resembles granulated crystals was created, known commonly as "ice". A powerful central nervous system stimulant, meth is used by athletes and students looking to initially heighten physical and mental performance, as well as service workers looking to work extra shifts.

Young women often begin using meth to lose weight, and others use meth recreationally to stay energized at "raves", parties, and/or social events. Meth is easier to obtain and less expensive than many other illegal substances, which leads to increased use. Meth is currently considered to be the most abused drug on the market.

## PHYSICAL EFFECTS

The physical effects of meth somewhat vary based on method of entry/exposure. For example, immediately after the drug is smoked or absorbed via intravenous injection a meth user will experience what is known as a "rush" or "flash" - a brief few minutes of extreme pleasure. While oral and intranasal users also experience a period of euphoria, the period of pleasure is mellowed and not described as a "rush".

Research has shown that even a small dose of meth can have significant effects on the central nervous system, including but not limited to increased physical activity, decreased appetite, increased respiration, hyperthermia, irritability, insomnia, confusion, dizziness, tooth grinding, dry or itchy skin, acne, sores, numbness, sweating, tremors, stomach cramps, convulsions, anxiety, paranoia, aggressiveness, extreme nervousness, incessant talking, and athetosis (writhing jerky, or flailing movements). Hyperthermia (extreme rise in body temperature as high as 108 degrees) and convulsions can lead to death, and significantly accelerated cardiac activity can lead to cardiovascular death and/or irreversible damage to blood vessels in the brain, all of which can lead to death.

Psychological effects of meth abuse can resemble those of schizophrenia and may include, but are not limited to, anger, panic, paranoia, auditory and/or visual hallucinations, repetitive behavior, and formication (delusions of parasites or insects on the skin), all of which can lead to homicidal and/or suicidal thoughts.

Animal research over the course of 20+ years has indicated that meth shortens and damages brain cells that contain dopamine and serotonin, brain stimulators which enhance mood and body movement, and that regrowth is limited. In this way, long-term use of meth can cause permanent brain damage, in addition to permanent symptoms similar to those of Parkinson's disease, a severe movement disorder.

Babies born to meth users and addicts can suffer a variety of birth defects including but not limited to low birth weight, tremors, excessive crying, attention deficit disorder, and behavioral disorders. Due to the nature and physical effects of meth, children born to meth users and addicts are also at an

increased risk of child abuse (particularly "shaken baby syndrome") and chronic neglect. In addition, meth users who prefer to inject the drug with potentially shared needles are at an increased risk of contracting HIV and/or hepatitis B/C, all of which can be transferred to an unborn fetus.

## TOLERANCE & ADDICTION

Meth is extraordinarily addictive. By artificially stimulating the pleasure areas of the brain, individuals become dependent on a meth-induced high and unable to find pleasure naturally. Like most drugs, meth first produces an intensely positive feeling followed by a period of depression. During this period of depression, users seek out more of the drug to return to normal, slowly building a high tolerance to the substance. Over time a meth user will lose control of one's use, dependent on the drug simply to feel normal. In fact, studies have shown that a meth user will often choose meth over food and/or water. Literally "running" on meth, meth abusers may refrain from eating and sleeping for days, binging on meth with as much as a gram of the drug every 2-3 hours until their meth supply runs out or they are too dazed to continue use. Meth addicted laboratory animals have actually died of starvation while desperately seeking out meth even though food was readily available.

Over time a meth user will become physically dependent on the drug, requiring a certain level of meth in his/her system simply to feel normal. When meth use is stopped, withdrawal symptoms can occur, including depression, anxiety, fatigue, paranoia, aggression, psychotic symptoms, irritability, excessive drowsiness or difficulty sleeping, shaking, nausea, palpitations, sweating, hyperventilation, increased appetite, and of course, an extreme craving for meth. Length and severity of meth withdrawal depends both on the individual, and on the length and severity of meth abuse. The more dependent a person is on meth, the harder withdrawal will be.

Meth abuse is frequently considered to be the hardest drug addiction to treat. As meth abuse can lead to permanent brain damage, particularly with regards to the centers of pleasure, many meth addicts never fully recover and remain unsatisfied with life, unable to ever feel a natural level of pleasure. Because brain damage is permanent, many meth abusers are hesitant to invest in rehabilitation, forgoing any possibility of normal feeling. In addition, as though there are no pharmacological treatments for meth dependence, a combination of long-term cognitive behavioral interventions and therapy, in addition to the use of antidepressants as necessary, is a meth abuser's most promising option. However, despite these apparent obstacles, rehabilitation is essential, and with both time and effort, can enable a meth user to return to a normal life.

## LEGAL CONCERNS

The federal Comprehensive Methamphetamine Control Act of 1996 increased penalties for possession of equipment used to make controlled substances and for trafficking in certain precursor chemicals (ie: cold pills), in addition to permitted the domestic seizure and forfeiture of methamphetamine precursor chemicals. Designed to enable the Attorney General to better coordinate international drug enforcement efforts in the hopes of preventing meth abuse from becoming the next drug-related national crisis, the 1996 federal act is the main federal statute regarding the production, sale, and use of meth. According to federal penalties, the mandatory minimum sentence under federal law for the trafficking of meth is 5 years in prison per 10 grams of pure meth, and 10 years in prison per 100 grams of

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pure meth. Although the cost of meth can vary drastically based on the region in which it was both produced and sold, national statistics indicate that a gram of meth can range anywhere from \$80-\$240 with the typical gram averaging approximately \$100. Like most illegal drugs, the rising cost of meth and financial burden meth use places on a meth abuser is simply another negative effect of the use of this illegal substance.

## STUDENT USE

In 2000, meth-related treatment admissions accounted for 4.1% of total admissions, twice as many as in 1994. In the first 6 months of 2004 it was noted that nearly 59% of all substance abuse treatment admissions (excluding alcohol) in Hawaii were primarily for meth abuse, with San Diego following close behind with nearly 51%. National statistics indicate that while meth is certainly a national problem, its prevalence is on the west coast, southwest, and in Hawaii.

In 2004, national self-reporting studies indicated that 6.2% of high school seniors had used meth over the course of their lifetime, compared to 5.3% of 10th graders. Similar surveys indicate that 35% of meth users are between 18-23 years old, with another 24% under 18 years old and 19% between 23-30 years old. Finding prevalence among both high school and college students, in addition to individuals in their 20s and 30s, meth can be found in both urban and rural areas and find use equally divided among males and females. Although recent years have seen an increase in the number of Hispanic and Native American meth users, white users remain dominant.

## LINKS AND RESOURCES

streetdrugs.org  
<http://www.streetdrugs.org/methamphetamine.htm>

National Institute on Drug Abuse  
<http://www.nida.nih.gov/Infofacts/methamphetamine.html>

KCI The Anti-Meth Site  
[http://www.kci.org/meth\\_info/faq\\_meth.htm](http://www.kci.org/meth_info/faq_meth.htm)

ONDCP  
<http://www.whitehousedrugpolicy.gov/publications/factsht/methamph/index.html>

do it now! Foundation  
<http://www.doitnow.org>