

Center for Behavioral Health Studies

What is Methamphetamine?

Methamphetamine and amphetamine are highly addictive drugs that produce stimulant effects on the central nervous system. Amphetamine has some limited therapeutic uses, primarily in the treatment of obesity.

Street Names

Methamphetamine is made in illegal laboratories and has a high potential for abuse and addiction. On the street, this drug has many names, such as "speed," "meth," and "chalk." Methamphetamine hydrochloride is produced in the form of clear chunky crystals resembling ice. It can be inhaled by smoking and is often referred to as "ice," "crystal," and "glass."

Method of Use

Methamphetamine is taken orally or intranasally (snorting the powder), by intravenous injection, and by smoking.

Immediately after smoking or intravenous injection, the methamphetamine user experiences an intense sensation, called a "rush." This experience can last several hours and is described as extremely pleasurable.

Oral or intranasal use produces an euphoria high, but not a rush. Users can quickly become addicted to using this very dangerous drug.

Severe Health Hazards

Methamphetamine releases high levels of the neurotransmitter dopamine, which stimulates brain cells and enhances mood and body movement.

It also has a major neurotoxic effect by damaging brain cells that contain dopamine as

well as serotonin, another neurotransmitter. Over a relatively short period of time, methamphetamine can cause irreversible symptoms similar to those of Parkinson's disease, a severe motor system disorder.

Other long-term effects of methamphetamine include respiratory problems, irregular heartbeat, and extreme anorexia. **Its repeated use can result in cardiovascular collapse and death.**

Medical Complications

Current research is now showing us that even low doses of methamphetamine can cause permanent damage to the brain's neuron cell endings. What often occurs is that the dopamine and serotonin neurons are damaged after methamphetamine use. **Present studies suggest most regrowth of nerve endings appears to be quite limited.**

The central nervous system (CNS) damage resulting from taking even limited amounts of methamphetamine can cause ongoing medical problems.

Complications include increased wakefulness, increased physical activity, increased respiration, hyperthermia, and euphoria. More severe CNS effects include irritability, confusion, tremors, convulsions, anxiety, paranoia, and aggressiveness. Hyperthermia and convulsions from methamphetamine overdose can result in death.

Community Epidemiology

Results reported at recent national meetings suggests that methamphetamine abuse and production continues to increase. Of particular concern are Hawaii, the west coast and the northwest areas of the United States, with abuse continuing to spread eastward.



Summary

According to 2006 National Institute on Drug Abuse (NIDA) data, 12.3 million Americans ages 12 and older have tried methamphetamine at least once in their lifetimes.

Many MDMA (ecstasy) and cocaine users are switching to the less expensive-

methamphetamine, despite problems with the severe toxicity of this drug.

Methamphetamine is often used in an injectable form which places users and their partners at great risk for transmission of HIV, Hepatitis C, and other STDs.

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