



## METHAMPHETAMINE

(Trade Name: Desoxyn®; Street Names: Meth, Speed, Crystal, Glass, Ice, Crank, Yaba)

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DEA/OD/ODE

### Introduction:

Methamphetamine is a highly addictive drug with potent central nervous system (CNS) stimulant properties. In the 1960s, methamphetamine pharmaceutical products were widely available and extensively diverted and abused. The placement of methamphetamine into schedule II of the Controlled Substance Act (CSA) in 1971 and the removal of methamphetamine injectable formulations from the United States market, combined with a better appreciation for its high abuse potential, led to a drastic reduction in the abuse of this drug. However, a resurgence of methamphetamine abuse occurred in the 1980s and it is currently considered a major drug of abuse. The widespread availability of methamphetamine today is largely fueled by illicit production in large and small clandestine laboratories throughout the United States and illegal production and importation from Mexico. In some areas of the country methamphetamine abuse has outpaced heroin and cocaine.

### Licit Uses:

Methamphetamine was originally used in nasal decongestants and bronchial inhalers (the levo isomer of methamphetamine is still utilized for these indications). Later it was available in tablets and injectable formulations and used for weight control, depression, and to increase alertness and prevent sleep. A broad segment of society used methamphetamine products for stimulant effects. Today there is only one product, Desoxyn®, currently marketed in 5 mg tablets. Desoxyn® has very limited use in the treatment of obesity, and attention deficit hyperactivity disorder. IMS Health® reports 16,000 prescriptions for methamphetamine were dispensed in the U.S. in 2012 and 4,000 in the first quarter of 2013. DEA's 2013 Aggregate production quota for methamphetamine was established at 3,912.5 kilograms.

### Chemistry/Pharmacology:

Methamphetamine is chemically and pharmacologically similar to amphetamine although it has more potent effects on the CNS that can last for 6 to 8 hours. Methamphetamine increases the release of the neurotransmitter, dopamine, which stimulates brain cells, enhancing mood and energy. At low doses, methamphetamine produces such effects as increased wakefulness, increased physical activity, increased heart rate and blood pressure, decreased appetite, increased respiration and body temperature (hyperthermia), and euphoria. High-dose chronic use has been associated with irritability, tremors, convulsions, anxiety, paranoia, and neurotoxic effects that cause damage to neurons and blood vessels. Aggressive and violent behavior, often directed at spouses and children, pose a significant risk to those individuals in contact with methamphetamine addicts. Death has resulted from extreme anorexia, hyperthermia, convulsions, and cardiovascular collapse (including stroke and heart attacks).

### Illicit Use:

Methamphetamine is abused for its stimulant and euphoric effects. It can be taken orally, snorted, smoked, and injected. Smoking or injecting methamphetamine results

in intense euphoria and is often associated with binge use, large escalation in dose with rapid tissue tolerance, and high rates of dependence and addiction. "Ice," "Glass," and "Crystal" are all terms for concentrated *d*-methamphetamine HCl chunks that are smoked. Yaba is a Thai name for a colored tablet containing methamphetamine combined with caffeine which is gaining popularity among individuals who frequent "raves." According to the 2011 National Survey on Drug Use and Health (NSDUH), 11.9 million individuals, aged 12 and older, reported nonmedical use of methamphetamine at least once in their lifetime. NSDUH reports that there were 133,000 people aged 12 and older who used methamphetamine for the first time in 2011. The Drug Abuse Warning Network (DAWN ED), reports 102,961 emergency department visits associated with methamphetamine in 2011. The 2011 Monitoring the Future survey indicates that 1.3% of 8<sup>th</sup> graders, 1.8% of 10<sup>th</sup> graders, and 1.7% of 12<sup>th</sup> graders used methamphetamine in their lifetime. In 2011, the American Association of Poison Control Centers reported 3,273 total poison exposures and 55 deaths related to methamphetamine.

### Illicit Production and Distribution:

Mexican drug trafficking organizations have become the primary manufacturers and distributors of methamphetamine to cities in the Midwest and West. These criminal organizations are able to supply large amounts of methamphetamine at high purity and low cost. Domestic independent laboratory operators also produce and distribute methamphetamine but usually on a smaller scale. Of particular concern is the toxic waste associated with these labs and the fact that many individuals, including children, are at risk of exposure to these toxic chemicals.

DEA's National Forensic Laboratory Information System (NFLIS) and System to Retrieve Information from Drug Evidence (STRIDE) data indicate that law enforcement officials submitted 152,707 exhibits and 175,685 exhibits identified as methamphetamine by federal, state and local forensic laboratories in 2011 and 2012, respectively. In the first quarter of 2013, there were 40,377 methamphetamine exhibits.

There are many ways to manufacture methamphetamine. The methods used are directly impacted by the availability of precursor chemicals and ease of synthesis. Drug traffickers are continually looking for loopholes in chemical control regulations and altering their methods of synthesis in order to continue their illegal activity. Currently, methamphetamine is primarily produced by utilizing diverted pseudoephedrine combination products. The Combat Methamphetamine Epidemic Act of 2005 requires retailers of non-prescription products containing pseudoephedrine, ephedrine and phenylpropanolamine to place these products behind the counter or in a locked cabinet. Consumers must show identification and sign a logbook for each purchase.

### Control Status:

Methamphetamine is in schedule II of the CSA.

Comments and additional information are welcome by the Drug and Evaluation Section; Fax 202 353-1263, telephone 202 307-7183, or Email ODE@usdoj.gov.