

NATIONAL DRUG COURT INSTITUTE



DRUG COURT PRACTITIONER FACT SHEET

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Methamphetamine

Methamphetamine (MA) is a powerful psychostimulant, once produced almost exclusively by motor cycle gangs in California and used by a limited number of individuals in such jobs as long haul truck driving, has become one of the most significant drug abuse problems in the United States, especially in the west and mid-west.

Methamphetamine: What is it? What does it do?

Methamphetamine is an extremely powerful drug that stimulates the central nervous system and has great potential for physical and psychological abuse and dependency. A man made drug (as opposed to other drugs such as cocaine that are plant derived), methamphetamine is an amphetamine derivative which can be ingested orally, snorted, smoked or injected intravenously.

Street methamphetamine is commonly known as “meth,” “speed,” “zip,” “go-fast,” “cristy,” “chalk,” or “crank.” Pure methamphetamine hydrochloride, in its smoked is called “LA” and if clear, chunky crystals “ice,” “crystal,” “crank,” “quartz,” or “glass.” The drug is a white, odorless, and bitter-tasting crystalline powder that easily dissolves in water or alcohol.

Methamphetamine can be easily produced from a few over the counter and inexpensive ingredients. Methamphetamine production sites, generally unsophisticated operations, can be found in numerous local regions, in both urban and rural locations.

Some of the short-term effects of methamphetamine use include: increased attention, decreased fatigue, increased activity, decreased appetite, rush and a sense of euphoria. If used for long periods of time, methamphetamine can produce dependence and addiction (in the form of paranoia, hallucinations, mood disturbances, and repetitive motor activity), increased risk of stroke and weight loss.

The most dangerous stage of methamphetamine abuse is when the drug use has produced psychosis (“tweaking”). A user who is tweaking has probably not slept in 3-15 days, and consequently will be extremely irritable and paranoid. A tweaker does not need provocation to behave or react violently, but confrontation increases the chances of violent reaction. If the tweaker is using alcohol, his negative feelings and associated dangers intensify.

The drug was traditionally associated with white, male, blue-collar workers, but it is now used by more diverse population groups including college students, young professionals, minorities and, increasingly, by women. Although methamphetamine is rarely prescribed by a physician, there are a few accepted medical reasons for its use, such as the treatment of narcolepsy, attention deficit disorder, and – for short-term use – obesity.

Recent Research Findings on Methamphetamine

Recent research on methamphetamine, funded by CSAT and NIDA, has led to some very important

findings about the short and long term effects of methamphetamine consumption.

1. Methamphetamine produces rapid changes in fundamental brain function as a result of direct damage to neural tissue. PET scan research conducted at UCLA, Johns Hopkins and Brookhaven Laboratories all demonstrates the profound neurotoxicity of methamphetamine.
2. The reversibility of the nerve damage resulting from methamphetamine is in question. Monkey studies at UCLA suggest that there is recovery from the methamphetamine damage, but only following a period of months or years. Other researchers have found that the changes associated with methamphetamine use do not appear to recover with time.
3. UCLA researchers have clearly established that the cognitive ability of chronic methamphetamine users is severely impaired while they are under the influence of methamphetamine. Further once, methamphetamine use is discontinued, cognitive abilities do not immediately return to normal. There is evidence on some cognitive measures, that performance actually deteriorates for the first several months of abstinence, before beginning to recover within 4-6 months after cessation of use.
4. One area of great concern is the utero effect of methamphetamine use by pregnant women. Recent pilot study data from UCLA on a sample of 14, 3-6 year old children, whose mothers used methamphetamine during pregnancy suggest that specific types of verbal learning may be significantly impaired in children whose mothers used methamphetamine during their pregnancy.
5. The recently released CSAT TIP #33 contains a set of information and treatment

recommendations for professionals delivering treatment services to methamphetamine users.

The spread of methamphetamine use poses many challenges to policy makers and medical personnel. Attorney General Janet Reno and Drug Czar, General Barr McCaffrey have co-chaired a national advisory taskforce to focus and prioritize an effort to address the problem of methamphetamine. Law enforcement efforts have been expanded to reduce the availability of the drug and its precursors. International efforts have been initiated to reduce the manufacture and supply of the drug from outside the US. The taskforce recommends expanding treatment availability and an increasing research funding to better understand the effects of methamphetamine and to develop strategies for treating users.

Methamphetamine and Drug Courts

One of the major challenges in the treatment of methamphetamine users is engaging them in outpatient treatment and retaining them in treatment for clinically significant periods of time. The treatment literature on methamphetamine users suggests that they respond well to behavioral and psychological treatments if they can be successfully engaged and retained in these programs for adequate durations (minimum of 4-6 months). In addition, stimulant users (cocaine and methamphetamine users) respond well to the application of contingency strategies (rewards and punishments rapidly applied contingent upon specific behaviors).

The structure and strategies of drug courts are perfectly suited to promoting a positive treatment response in methamphetamine users. Properly run drug court programs use contingency procedures as central principles for initiating and sustaining treatment involvement. Furthermore, the basic premise of the drug court program is an applied contingency management program- positive reinforcement (e.g., reduced program attendance/responsibilities), for positive

behaviors-(e.g. , attendance and drug free urine samples); and punishments (e.g., jail), for negative behaviors (e.g., continued drug use). The drug court program is extremely important in producing positive treatment outcomes with methamphetamine users.

References

- Melenga, W.P., etal. (1997). Ethological and 6-[18f] flour-1-DOPA-PET profiles of long-term vulnerability to chronic amphetamine. *Behavioral Brain Research*. 84. 259-268.
- Melenga, W.P., etal. (1997). Recovery of striatal dopamine function after acute amphetamine-and methamphetamine-induced neurotoxicity in the vervet monkey. *Brain Research*. 766(1-2). 113-120.
- National Institute on Drug Abuse, National Institute of Health, U.S. Department of Health & Human Services. (1998). *Methamphetamine abuse and addiction [Research report series]*.
- Rawson, R.A. (1999). *Treatment for stimulant disorders [Treatment improvement protocol (TIP) series 33]*. Public Health Service, Office of Substance Abuse Prevention, U.S. Department of Health & Human Service.
- Sandt, C. (2000). Methamphetamine: the big red flag. *Child Law Practice*, 19 (1). American Bar Association.
- Travis, J., Vereen, Jr., D. (January 2000). *Final Report: Federal advisory committee. Methamphetamine Interagency Task Force*.

Resources/Contacts

- **Center for Substance Abuse Treatment (CSAT)**
www.samhsa.gov/csat
- **National Drug Court Institute (NDCI)**
www.ndci.org
- **National Institute on Drug Abuse (NIDA)**
www.nida.nih.gov

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