

METHAMPHETAMINE FACTS

What is Meth?

Methamphetamine (meth) is a highly addictive drug that is easily produced by combining a number of chemicals, which can be extracted from readily available products. These products include over-the-counter cold medicines, diet pills and household products such as lithium batteries, matches, tincture of iodine and hydrogen peroxide. Flammable household products, including charcoal lighter fluid, gasoline, kerosene, paint thinner, rubbing alcohol and mineral spirits may be used in the mix.¹

Originally confined to the west coast and certain rural mid-western areas, methamphetamine abuse and trafficking have been spreading eastward over the past decade, and the number of methamphetamine laboratories seized by U.S. law enforcement agencies increased 25 percent between 2001 and 2004.² In fact, an estimated 10 million Americans have tried meth at some point in their lives.³ Among young adults age 18 to 25, there are nearly 200,000 current meth users.⁴ A recent study funded by the National Institute on Drug Abuse showed that use of crystal methamphetamine was actually higher among adults age 18 to 26 is higher than previously reported. The study also showed that the drug is associated with risky behaviors, particularly among women, and that use is higher among whites or Native Americans living in the west or south, who also use marijuana, cocaine and intravenous drugs and are high novelty seekers.⁵

Although the use of meth is declining, the consequences of use are swift and serious, and often dramatic.

Health Effects

Meth is a highly toxic substance that has dramatic effects on the body. Short-term effects may include increased wakefulness, increased physical activity and respiration, along with decreased appetite and hyperthermia (elevated body temperature). Long-term effects may include changes in brain functions associated with reduced motor speed and impaired verbal learning. Recent research has also revealed changes in the brain that may account for many of the emotional and cognitive problems observed in chronic meth abusers.⁶

Additional problems may also arise, such as anxiety, confusion, tremors, convulsions and cardiovascular collapse and death. Other effects include paranoia, aggressiveness, extreme anorexia, hallucinations, delusions and severe dental problems.⁷ Meth has been involved in a steadily increasing number of emergency room visits across the country, with the total number of meth-related emergency visits in 2005 nearly 109,000. That number rivals heroin in drug-related visits.⁸

New research indicates that meth abuse and HIV infection cause significant alterations in the brain associated with learning new information, solving problems and maintaining attention. Co-occurring methamphetamine abuse and HIV infection appears to result in greater impairment than each condition alone. Meth abuse is linked with HIV, hepatitis C, and other sexually transmitted diseases not just by contaminated needles, but due to increased risky sexual behaviors.⁹

Meth Production and Distribution

Unlike most other drugs, methamphetamine can be produced with easily obtained, legal substances. It is created with chemicals commonly available, and many of the base chemicals are common household products that are not easy to regulate. Other elements such as ephedrine and pseudoephedrine, however, have become restricted and laws limit their sale and availability. Meth is created in labs, and although currently the number of small “Mom-and-Pop” labs is greater than the number of superlabs (labs capable of making 10 or more pounds of product at a time), the DEA indicates that the presence of superlabs in the U.S. is expanding.¹⁰

In a methamphetamine laboratory, the “cook” often handles ignitable, corrosive, reactive and toxic chemicals in the presence of an open flame or heat source. Some of these substances are extremely harmful or lethal when inhaled or touched; others react violently when they are heated, immersed in water, exposed to air or combined. These corrosive and reactive materials is one of the reasons meth labs frequently explode.¹¹

These chemicals also pose an environmental hazard when dumped. For every pound of meth produced, between five and six pounds of highly toxic waste is generated. Producers routinely dump hazardous waste on the land and into streams, landfills and sewage systems, resulting in environmental damage to property, water supplies, farmland and vegetation.¹²

Child Victims

Adult methamphetamine addicts often become so obsessed with the drug that they neglect their children. Children living with parents or guardians who use or produce meth are four times more likely to be sexually or physically abused and three times more likely to be neglected.¹³ In addition to general neglect, children living in meth labs face a variety of dangers. Children are more likely to be adversely affected by toxic chemicals because their nervous and reproduction systems are still developing. Also, factors such as higher metabolic and respiratory rates, rapid growth rates, crawling on the floor, and putting their hands in their mouths increase their risk of exposure to toxic chemicals. Additionally, meth use during pregnancy can cause complications such as premature delivery and may be linked to congenital deformities.¹⁴

Treatment

Treatment for meth abuse works if people have sufficient access to care, according to a team of University of Iowa researchers who reviewed existing treatment options and made recommendations for areas for research. The researchers found that what seems to make a difference is time. Meth effects can last up to six months for just one use, and for this reason it takes much longer to treat someone with meth addiction than it does for cocaine or heroin. Meth users need more time to detox and participate in treatments, which are cognitive. The NIDA funded study also recommended exploring whether certain prescription drugs might be used to treat meth.¹⁵

Treatment sources can be found at www.samhsa.gov/find treatment.

¹ Swetlow, K. OVC Bulletin, Children at Clandestine Methamphetamine Labs: Helping Meth’s Youngest Victims. Washington, DC: U.S. Department of Justice, 2003.

² Strom K et al. NFLIS Special Report: Synthetic Drugs, 2001-2004. Washington, DC: U.S. Department of Justice, Drug Enforcement Administration, Office of Diversion Control. URL: <http://www.deadiversion.usdoj.gov/nflis>.

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- ³ National Survey on Drug Use and Health, SAMHSA, 2005. URL:
<http://www.oas.samhsa.gov/NSDUH/2k5nsduh/tabs/Sect1peTabs1to66.htm#Tab1.1A>.
- ⁴ National Household Survey on Drug Use and Health, SAMHSA2005.
<http://www.oas.samhsa.gov/NSDUH/2k5nsduh/tabs/Sect1peTabs1to66.htm#Tab1.1B>.
- ⁵ Bonita J, Irinati D, Hallfors D, Bauer D. Crystal methamphetamine use among young adults in the USA. *Addiction*, 102:1102-1113, 2007.
- ⁶ Infofax: Methamphetamine, National Institute on Drug Abuse (NIDA), March 2007.
- ⁷ Ibid.
- ⁸ Drug Abuse Warning Network, 2005: National Estimates of Drug-Related Emergency Department Visits. SAMHSA. URL:
<http://www.usdoj.gov/ndic/pubs21/21137/meth.htm#Start>
- ⁹ Jernigan T et al. Effects of methamphetamine dependence and HIV infection on cerebral morphology. *American Journal of Psychiatry*, 162:1461-1472, August 2005.
- ¹⁰ Hunt D. Methamphetamine abuse: challenges for law enforcement and communities. *National Institute of Justice Journal No. 254*, July 2006.
http://www.ojp.usdoj.gov/nij/journals/254/methamphetamineabuse_print.html
- ¹¹ Ibid.
- ¹² Ibid.
- ¹³ Boozeman F. Meth and Public Health 2004. Presentation at the Public Health Law Conference. In *Methamphetamine Labs/Cleaning up clandestine methamphetamine labs: The role of state public health agencies*, Association of State and Territorial Health Officials. June 2005.
- ¹⁴ Ibid.
- ¹⁵ Cretzmeyer M et al. Treatment of methamphetamine abuse: research findings and clinical directions. *Journal of Substance Abuse Treatment*, 24(3):267-277, 2003.