

Methamphetamine Use: Risk for HIV/AIDS

A Library and Resource Center on Alcohol, Tobacco, Other Drugs, Mental Health and Wellness

Methamphetamine is a stimulant drug that has been around for decades. Its popularity has waxed and waned over the years, but its use seems to be increasing in many parts of the United States and in several population subgroups. Methamphetamine is very addictive, it can be injected, and it can increase sexual arousal while reducing inhibitions. Because of these attributes, public health officials are concerned that users may be putting themselves at increased risk of acquiring or transmitting HIV infection—a valid concern, considering that methamphetamine use has been linked with increased numbers of HIV infections in some populations.

There is a growing body of research on methamphetamine use among men who have sex with men (MSM). Overall, assessments show that MSM who use methamphetamine may increase their sexual risk factors (for example, they may use condoms less often, have more sex partners, and may engage in practices that elevate their risk for HIV infection, such as unprotected receptive anal sex) and perhaps their HIV-related drug-use risk factors (for example, injecting methamphetamine instead of smoking or snorting it).

MSM are not the only group with risk factors related to methamphetamine use. Evidence shows that heterosexual adults and adolescents under the influence of methamphetamine may also engage in practices that increase their risk for HIV infection and other sexually transmitted diseases (STDs). However, among MSM, the baseline prevalence of infections (such as HIV) and risk behaviors (such as number of partners and anal sex) tends to be higher, resulting in greater risk for transmission.

Methamphetamine users may exchange sex for money or drugs, creating another risk factor for acquiring and transmitting HIV.

What is becoming clear is that the use of methamphetamine can contribute to sexual risk behaviors, regardless of the sexual orientation of the user. Current data indicate a strong link between methamphetamine use and sexual risk among MSM, and perhaps among heterosexual adults and youth.

The Effects of Methamphetamine Use

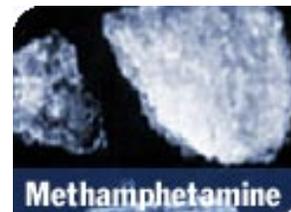
As a central nervous system stimulant, methamphetamine directly affects the brain and the spinal cord by interfering with the normal release and uptake of neurotransmitters (chemicals that nerve and brain cells produce to communicate with each other). Dopamine is the primary neurotransmitter affected by methamphetamine, but norepinephrine and epinephrine are also affected.

The use of methamphetamine causes the release of large quantities of neurotransmitters. The neurotransmitters, in turn, cause increased heart rate and blood pressure levels and produce sensations of pleasure, self-confidence, energy, and alertness. They also suppress the appetite and enhance sexual arousal. Users may report sleeplessness, talkativeness, teeth grinding, increased body temperature, and compulsive behavior, such as skin picking.

Long-term use can cause:

Physical symptoms

- decayed teeth
- weight loss
- skin lesions
- stroke
- heart attack



Source: DEA

(continued)

Mental symptoms:

- paranoia
- hallucinations
- anxiety
- irritability

Behavioral symptoms

- aggressiveness
- violence
- isolation

The long-term use of methamphetamine can lead to reduced levels of dopamine and other neurotransmitters, making the user crave methamphetamine to raise dopamine levels. Because bingeing on the drug depletes neurotransmitter stores, coming down from the high is often described as a “crash,” which includes a phase of depression. Additional doses of methamphetamine are often used to alleviate these negative feelings. This cycle can lead to addiction, which can be very difficult to overcome.

Because methamphetamine use can cause impotence at the same time that it is increasing libido, some MSM may use erectile dysfunction medications and may then engage in unprotected receptive or insertive anal sex while under the influence of the drugs.

Reasons for Methamphetamine Use

The reasons for using methamphetamine vary.

- Males and females have reported using methamphetamine for increased energy and productivity, its low cost, self-medication for depression or attention deficits, and the euphoric high.
- Males have reported using methamphetamine for economic reasons, (selling the drug, increased energy to work multiple jobs) and sexual reasons (enhanced libido and endurance).
- A study of HIV-positive MSM who use methamphetamine found that the most frequently reported motivation for use was to enhance sexual pleasure (reported by nearly 90% of respondents). Other reasons included self-medication of negative feelings associated with HIV-positive serostatus.

- A similar study of HIV-negative heterosexual adults found that the primary motivations for methamphetamine use were to get high, to get more energy, and to party.
- Females reported using methamphetamine to control weight and to combat fatigue.
- The culture of methamphetamine use provides a social network—a community—for persons who feel like outsiders.

Specific Ways Methamphetamine Use Negatively Affects Thinking and Behavior

- Methamphetamine use may impair the ability or the desire to be safe, both sexually and when injecting drugs. That impairment, in turn, may lead to experimentation with riskier behaviors in general.
- Methamphetamine may dry mucosa, which may lead to more chafing and abrasions, which, in turn, could provide an entry for HIV during sexual activity.
- Methamphetamine use is associated with sexual practices that may increase the likelihood of HIV and other STD transmission (e.g., long duration, leading to chafing or sores; multiple partners; lack of inhibition; low level of condom use).
- Methamphetamine use may cause mental confusion and impair the ability to take medications that have been prescribed for HIV infection or other conditions.

Public Health Implications

Methamphetamine use is a public health issue. There is a need for a broad approach in addressing methamphetamine use and risk for infection with HIV and other STDs—one that includes heterosexual adults and adolescents as well as MSM. HIV and STD prevention and treatment programs could be enhanced to include assessment for methamphetamine use, with referrals to methamphetamine treatment, primary testing, and sexual health promotion.

Department of Health and Human Services
Center for Disease Control and Prevention (CDC)
www.cdc.gov/hiv/resources/factsheets/meth.htm
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