

## METHAMPHETAMINES

“Meth,” “speed,” “chalk,” “ice,” “crystal,” “crank,” “fire,” and “glass” are street terms for a man-made drug called methamphetamine. Methamphetamine is among the most addictive substances around. The drug can easily be made in secret laboratories from relatively inexpensive over-the-counter ingredients. This white, odorless, bitter tasting crystalline powder can be smoked, snorted, injected, or swallowed.

Methamphetamines are synthetic amphetamines or stimulants that are produced and sold illegally in pill form, capsules, powder, and chunks. Two such methamphetamines are “crank” and “ice.” Crank refers to any form of methamphetamine. Ice is a clear, crystallized, smokeable chunk of methamphetamine that produces a more intense reaction than cocaine or speed. Methamphetamines stimulate the central nervous system, and the effects may last anywhere from 8 to 24 hours. Crank and ice are extremely addictive and produce a severe craving for the drug.

In addition to the physical effects, the production and processing of methamphetamines also is dangerous. The ignitable, corrosive, reactive, and toxic nature of chemicals used to produce the drugs can cause explosions, fires, toxic fumes, and damage to health and environment.

### **PHYSICAL EFFECTS**

Methamphetamines are highly addictive and users can experience physical and psychological effects. Compared with cocaine use, methamphetamines are more problematic because of the longer-lasting effects. Users experience erratic behavior, excess energy, and suppressed appetite, and become weak or ill resulting from lack of nourishment. Chronic users can suffer tremors, anxiety, insomnia, and paranoia. Other short and long-term physical effects are listed below:

#### ***Short-Term Effects***

- hallucinations
- aggressive, violent behavior
- intense high
- insomnia
- increased alertness
- impaired speech
- extreme rise in body temperature
- uncontrollable movements

#### ***Long-Term Effects***

- fatal kidney and lung disorders
- possible brain damage
- depression
- hallucinations
- permanent psychological problems

Repeated use of the drug can cause a disorganized lifestyle, weight loss, liver damage, stroke, lowered resistance to illness, and eventually, death.

These physical effects can affect social issues in one’s life and lead to family problems, crime and law-enforcement problems, work-related problems, financial problems, violence, and community breakdown.

Methamphetamines can cause a severe crash after the effects wear off. The crash, or low feeling, is more intense and longer lasting than that of both speed and cocaine. The effects not only are long lasting, but continue to cause damage to the user long after use has stopped.

## **HEALTH RISKS**

Some of the many health-related consequences associated with methamphetamine use include increased respiration, tremors, convulsions, and such cardiovascular problems as chest pain, hypertension, and increased heart rate. Methamphetamines also are thought to damage brain cells that contain dopamine and serotonin, which transmit impulses to the brain. Methamphetamine use can reduce dopamine levels, producing symptoms similar to those of Parkinson's Disease. It may also damage nerve endings.

Hyperthermia and convulsions, as well as such cardiovascular side effects as chest pain and hypertension, caused by methamphetamine use may result in death. Increased heart rate and blood pressure, leading to damaged blood vessels in the brain, may produce strokes. Methamphetamine use affects the lungs, kidneys, and liver. Pulmonary edema and cardiac arrest may occur after prolonged use.

## **PRENATAL COMPLICATIONS**

Methamphetamine used during pregnancy can cause major problems for babies, including asocial behavior, and inability to bond, tremors, and birth defects. Developmental problems may result because of reduced blood flow, and the drug may have a toxic effect on the fetal brain.

## **TREATMENT**

Methamphetamine users may experience long-term physical and psychological effects. Current treatment efforts include those used for other addictions: detoxification, residential treatment, and outpatient rehabilitation. Little information is available concerning methamphetamine-specific treatment programs. However, research on protocols being used in other states is being reviewed.

Source: Policy Brief: *Methamphetamine in Missouri*, Missouri Institute of Mental Health

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