Methamphetamine is a stimulant drug that is chemically similar to amphetamine (a drug used to treat ADHD and narcolepsy).

People can take methamphetamine by smoking, swallowing, snorting, or injecting the drug.

Methamphetamine can be highly addictive.

A person can overdose on methamphetamine.

What Is Methamphetamine?

Methamphetamine is a powerful, highly addictive stimulant that affects the central nervous system. Crystal methamphetamine is a form of the drug that looks like glass fragments or shiny, bluish-white rocks. It is chemically similar to amphetamine, a drug used to treat attention-deficit hyperactivity disorder (ADHD) and narcolepsy, a sleep disorder. Other common names include blue, crystal, ice, meth, and speed.

How Do People Use Methamphetamine?

People can take methamphetamine by:

- Smoking
- Swallowing (pill)
- Snorting
- Injecting the powder that has been dissolved in water/alcohol

Because the "high" from the drug both starts and fades quickly, people often take repeated doses in a "binge and crash" pattern. In some cases, people take methamphetamine in a form of binging known as a "run," giving up food and sleep while continuing to take the drug every few hours for up to several days.

How Does Methamphetamine Affect The Brain?

Methamphetamine increases the amount of the natural chemical dopamine in the brain. Dopamine is involved in body movement, motivation, and reinforcement of rewarding behaviors. The drug’s ability to rapidly release high levels of dopamine in reward areas of the brain strongly reinforces drug-taking behavior, making the user want to repeat the experience.

Short-Term Effects

Taking even small amounts of methamphetamine can result in many of the same health effects as those of other stimulants, such as cocaine or amphetamines. These include:

- Increased wakefulness and physical activity
- Rapid and/or irregular heartbeat
- Increased blood pressure and body temperature
- Decreased appetite
- Faster breathing
Long-Term Effects

People who inject methamphetamine are at increased risk of contracting infectious diseases such as HIV and hepatitis B and C. These diseases are transmitted through contact with blood or other bodily fluids that can remain on drug equipment. Methamphetamine use can also alter judgment and decision-making leading to risky behaviors, such as unprotected sex, which also increases risk for infection. Methamphetamine use may worsen the progression of HIV/AIDS and its consequences. Long-term methamphetamine use has many other negative consequences, including:

- Extreme weight loss
- Addiction
- Severe dental problems ("meth mouth")
- Intense itching, leading to skin sores from scratching
- Anxiety
- Changes in brain structure and function
- Confusion
- Memory loss
- Sleeping problems
- Violent behavior
- Paranoia—extreme and unreasonable distrust of others
- Hallucinations—sensations and images that seem real though they aren’t

In addition, continued methamphetamine use causes changes in the brain's dopamine system that are associated with reduced coordination and impaired verbal learning. Although some of these brain changes may reverse after being off the drug for a year or more, other changes may not recover even after a long period of time.

Can A Person Overdose On Methamphetamine?

Yes. An overdose occurs when the person uses too much of a drug and has a toxic reaction that results in serious, harmful symptoms or death. It is important to note that cheap, dangerous synthetic opioids are sometimes added to street methamphetamine without the user knowing.

Is Methamphetamine Addictive?

Yes. When people stop taking it, withdrawal symptoms can include:

- Anxiety
- Fatigue
- Severe depression
- Psychosis
- Intense drug cravings