



The Difference is Research

# Methamphetamine

## What is methamphetamine?

Methamphetamine is a potent synthetic stimulant drug that is manufactured in clandestine laboratories from chemicals, including those used in cold and flu medications (e.g. pseudoephedrine). Methamphetamine is made in Australia and imported from other countries.

Methamphetamine is part of a larger family of drugs known as Amphetamine-Type Stimulants (ATS), which also includes amphetamine and ecstasy. Amphetamine was common in Australia until the late 1990s when it was supplanted by methamphetamine. In Australia methamphetamine is sold on the street under various names, including 'meth', 'ice', 'crystal', 'shard', 'speed', 'tina', 'base', 'fire' and 'skates'.

Highly purified methamphetamine can have a translucent crystalline appearance, hence the street names 'crystal' and 'ice'. Methamphetamine can also be sold as a powder (often called 'speed') or, less often, as a damp oily substance (called 'base') or liquid.

Methamphetamine, particularly the crystalline form of the drug, is usually sold in points (approximately 0.1 grams). The powder form of the drug is also sold in larger quantities (half-grams, grams). The powder form of methamphetamine is typically diluted with adulterants (usually glucose or sucrose), resulting in a lower purity. The crystalline form of the drug is usually not 'cut' with adulterants but it may still contain impurities from the manufacturing process.

The crystalline form of methamphetamine is usually smoked but it can also be injected. The powder form of the drug is usually injected, snorted or swallowed, while the damp or oily form ('base') is usually either swallowed or injected.



Australia has one of the highest recorded rates of methamphetamine use globally.

According to the 2013 National Drug Strategy Household Survey, 2.3% of Australians aged 14 or older currently use methamphetamine. Use is most common amongst young adults, with 5.8% of 20 to 29 year olds reporting past year use in 2013. Half of these people use crystalline methamphetamine.

Although the number of people who use methamphetamine has remained stable over the past decade, the number of people who report the use of crystalline methamphetamine has substantially increased.

NDARC's Illicit Drug Reporting System found that crystal methamphetamine use by people who inject drugs (PWID) has increased by 34 per cent since 2010, climbing six per cent each year for the past three years.

There has also been an increase in the number of people using methamphetamine weekly or more often, and the number of people estimated to be dependent on methamphetamine.

### What are the effects?

Methamphetamine is a stimulant drug which increases arousal, alertness and produces a sense of euphoria.

The effects come on rapidly (within minutes) if smoked or injected. Snorting or swallowing produces a less intense high that can take up to half-an-hour to occur.

The high from the drug is most intense for the first 1-2 hours, with the stimulant effects persisting for 6-12 hours. The drug takes 2-3 days to leave the body.



#### Effects of methamphetamine can include the following:

- Dilated pupils
- Talkativeness
- Confidence
- Inability to sleep
- Reduced appetite
- Dehydration
- Rapid heart beat
- · Restlessness and agitation
- Paranoia
- Hallucinations

## What are the risks?

Methamphetamine is a potentially very harmful drug, particularly if smoked or injected, or if taken regularly.

#### Physical health risks

- · Weight loss, dehydration, malnutrition, exhaustion
- Meth mouth: dental cavities, cracked teeth and gum disease from poor dental hygiene, dry mouth and grinding teeth
- Cardiovascular (heart) problems and stroke from elevated heart rate and blood pressure
- Kidney problems, including kidney failure from dehydration
- Lung problems including pulmonary oedema (fluid on the lungs)
- Infective endocarditis, a life-threatening infection of the heart and its valves, from dirty injections or abscesses
- Skin sores and abscesses from skin picking
- Increased risk of sexually transmitted infections (STIs) from unsafe sex (intoxication increases libido)
- Risk of blood-borne viruses (Hepatitis C, B and HIV) from injecting

#### Mental health risks

- Dependence, especially with smoking or injecting and with regular use
- Episodes of paranoia and/or hallucinations, especially following heavy episodes of use and in people who have an underlying vulnerability to psychosis
- Depression, especially when coming off the drug
- Anxiety and panic can be worsened by the stimulant effects of methamphetamine
- Agitation and irritability

# Longer-term health risks

Potential risks include impaired brain function, which may manifest as poor concentration and memory, poor ability to regulate emotions, and movement problems.

However, the extent to which these problems occur, persist beyond giving up use or impair function is not clear. There is also evidence that the ongoing stress that taking methamphetamine has on the cardiovascular system can weaken the heart and affect blood vessels in a way that may increase the risk of heart failure and stroke later in life.

# **Treatment options**

Most people seeking treatment for their methamphetamine use will receive help from community drug treatment services.

The main types of services can be categorised as detoxification (or withdrawal management), residential rehabilitation (e.g. therapeutic communities) and out-patient counselling. The best outcomes are achieved if people continue their treatment beyond attending detoxification (e.g. continue with rehabilitation and/or counselling). People who stay in treatment longer are less likely to relapse. Relapse rates are high and people seeking help should look to ongoing support after they leave treatment (e.g. via out-patient counselling services) to support them through their recovery.

Research evidence suggests that the best approaches to treat dependence on methamphetamine are structured psychological and behavioural therapies (e.g. cognitive-behavioural therapy and contingency management). These approaches are usually provided by psychologists and are not available through all treatment services.