

What happens to your body when you use ice?

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[Crystal methamphetamine, or ice, is the most potent form of methamphetamine.](#)

Ice, along with speed and base, is a form of the potent stimulant drug methamphetamine.

Also referred to as shabu, crystal, crystal meth or d-meth, ice is the purest and most potent form of methamphetamine. It comes as a powder or crystals that are usually snorted, injected or smoked.

The latest figures from the National Drug Survey suggest [2 per cent of Australians use methamphetamine](#) — a figure that has not really changed much over the past decade, said Dr Nicole Lee, an Adjunct Associate Professor at Curtin University's National Drug Research Institute.

But about half of those who use methamphetamines say they prefer to take ice, and the number of people using ice has doubled since the last survey, Dr Lee said.

The first hour

[Can you become dependent after just one use of ice?](#)



The more times you use ice — or any other drug — the greater the risk of developing a dependency.

How quickly you feel the effect of methamphetamine depends on the form, the route of administration and how much of it you use, Dr Lee said.

"Mostly people will smoke, inject or swallow a pill," she said. Sometimes people dissolve it into alcohol or water and drink it.

"If you smoke it, it has an immediate high, just in a couple of minutes you'll get quite a big hit. Whereas if you ingest it through your stomach it's about 20 minutes before you start to feel the effects."

The immediate effects from ice are intense pleasure and clarity. Users say they have lots of energy and can think clearly, feel like they can make good decisions, and plan effectively.

This is because methamphetamine dramatically increases the levels of the hormone dopamine - by up to 1,000 times the normal level – much more than any other pleasure seeking activity or drug.

Physical effects can include dilated pupils, an increased heart and breathing rate, a reduced appetite and an increased sex drive.

The next day

The effects usually last for between four and 12 hours, although methamphetamine can be detected in blood and urine for up to 72 hours.

Methamphetamines and psychosis

- Almost [one quarter of regular methamphetamine users will experience a symptom of psychosis](#) in any given year.
- Methamphetamine psychosis typically involves feeling overly suspicious, having strange beliefs about things that are not plausible, or hearing and seeing things that are not there.
- These symptoms can vary in intensity and usually last up to two to three hours, but sometimes symptoms can be severe and last for days.
- People with schizophrenia are far more likely to experience psychosis after using methamphetamine than other users.

After the effects of the drug wear off, you'll begin to come down, sometimes up to 24 hours after you used the drug.

If you're coming down from methamphetamine you're likely to feel the opposite of what you feel when you're high. So you'll have trouble making decisions, poor concentration and difficulty planning.

You may also have headaches, blurred vision and start to feel hungry.

It's pretty common to feel flat, depressed, jittery and anxious. You may feel exhausted and want to sleep for a day or two, although you may have difficulty sleeping, Dr Lee said.

Some people may also feel very irritable or have mild psychotic symptoms like paranoia and hallucinations.

"The 'come down' period is like a hangover, a recovery period after which people may move into withdrawal if they are dependent," she said.

How much do you know about methamphetamine?

[How much do you know about this drug? Take the quiz to test your knowledge.](#)

Using again and again

Once users start to take ice at higher doses or to use it more frequently, the pleasurable effects tend to give way to less pleasurable ones, Dr Lee said.

Physically this might involve a racing heart and increased breathing rate, a rise in body temperature, a dry mouth and sometimes nausea and vomiting.

At critical toxicity or overdose levels, people can also have stroke or heart failure, and occasionally seizures.

Once you start taking higher doses you may also start to feel jumpy or anxious, hostile and aggressive. This can escalate to feelings of intense paranoia or psychotic episodes.

This is caused by methamphetamine's release of another neurotransmitter (brain chemical) called noradrenaline, which induces a fight or flight response.

It's these users that typically turn up in emergency departments and pose a challenge to medical staff, said David Caldicott, an Emergency Consultant at the Calvary Hospital in Canberra.

This is because they are often dealing with methamphetamine's "double-whammy" of physical as well as psychological effects, he said.

For instance a user could present to emergency with stroke-like symptoms but be severely agitated and aggressive.

"It's kind of a Benjamin Button type drug so... [you could] see a stroke or aortic dissection in someone using ice in their 20s or 30s," he said.

What is drug dependence?

There's a whole range of symptoms that indicate you're dependent on a drug.

These include:

- needing more of drug to get the same effect
- having withdrawal symptoms, including irritability, panic attacks, excessive, tiredness, extreme hunger
- spending large amounts of time seeking out the drug, using it or recovering from it

If it is starting to affect home life, work life, or schooling, that's an indicator that you are dependent.

Chronic withdrawals

It takes between 10 to 14 days to physically detox from methamphetamine, almost twice as long as many other drugs.

After an acute withdrawal period, there's a more chronic withdrawal period that may take 12 to 18 months.

"It makes it very difficult for people to get off because having cravings, feeling really flat, jumpy and anxious for over a year-and-a-half is a long time," Dr Lee said.

One of the reasons it's so difficult to come off ice and other methamphetamines is that the drugs target the dopamine system. Regular and huge bursts of dopamine can effectively wear the relevant brain regions out, so the brain is no longer able to produce enough dopamine.

"The feeling that you get when you have lots of dopamine in your system is a feeling of incredible pleasure so when the dopamine system wears out, people really feel very flat, and depressed," Dr Lee said.

In order to feel normal, users need more methamphetamine on board, which is one of the reasons relapse rates are so high.

But Dr Lee said research shows that changes to the dopamine system are recoverable over time.

How addictive is ice?

All drugs have the potential for dependence. In 2013-14:

- 40 per cent of treatment in Australia was for alcohol
- 24 per cent for cannabis
- 17 per cent for methamphetamine
- 7 per cent for heroin

People do become addicted to methamphetamine, but it is not the most addictive drug around, said Dr Lee. Among methamphetamine users who use regularly around 10 to 15

per cent are dependent compared to 50 per cent of heroin users and 95 per cent of cigarette smokers.

"Compared to some other drugs, it has moderate dependence potential. The rate of dependence among users is probably similar to cannabis," she said.

"However, because of the significant brain changes from methamphetamine, once someone becomes dependent on methamphetamine, they often find it very difficult to get off. And we don't know who it is that will become dependent and who won't."

Dr Lee and colleagues have done research in this area and found there was a year between when people first started using ice regularly — weekly or more than weekly — and when they started experiencing problems including dependence.

However, it's hard to predict who will become dependent and who won't. And once you are dependent, it is quite hard to get off because of how it affects your brain, Dr Lee said.

Who's using and where?

Australia has fairly strong data on the use of illicit drugs, thanks to the [National Drug Strategy Household Survey](#), conducted every three years.

[**Dr Nicole Lee wants to challenge the media's coverage of the use of ice in Australia, and said "unduly negative images" had created unnecessary fear.**](#)

Professor Ann Roche, Director of the National Centre for Education and Training on Addiction at Flinders University, said some parts of Australia have higher rates of usage.

"You see a significantly higher level of use in the rural areas. More people have used over their lifetime, more people have used in the last 12 months — which we consider to be recent use."

Younger Australians are more likely to use the drug, especially men.

"We see concentrations in young males in their late teens to late 20s. We see high concentrations of use among young males who are working in industry and trade areas. Consumption occurs across the board, but there's really high concentration there," Professor Roche said.

And the way in which Australians are using methamphetamine has changed.

"Where people used speed previously, mostly as a tablet, now they smoke it," she said.

"If you're smoking, it's a kind of innocuous activity and what people used to say is they continue to smoke, or do it socially in a group, and that encourages people to consume more."