
Amphetamines

Summary

- Amphetamines are psychostimulant drugs that abnormally speed up the functions of the brain and body.
 - It is illegal to make or sell amphetamines, and to possess or use them unless under medical supervision.
 - Long-term amphetamine misuse can damage the brain and may lead to psychosis, malnutrition and violent behaviour.
 - Call an ambulance if you think someone has overdosed after taking any drugs, including amphetamines.
-

Amphetamines are synthetic psychostimulant drugs, which means they speed up the workings of the brain. There are legal (prescribed by a doctor) and illegal amphetamines. Long-term misuse of amphetamines can lead to serious problems, including brain damage, malnutrition and psychosis.

Legal and illegal amphetamines

Legal amphetamines, like dexamphetamine, are manufactured by pharmaceutical companies and are usually only prescribed for particular disorders, such as narcolepsy or attention deficit hyperactivity disorder (ADHD).

Illegal amphetamines are manufactured in secret laboratories and 'cut' (diluted) with different substances to boost profits. This means the person using the drug has no idea if the dose will be strong or weak, or whether it contains dangerous fillers such as talcum powder or quinine.

The most common amphetamine in Australia is methamphetamine, which comes in three forms:

- **Speed** – usually comes in the form of a powder.
- **Base** – is an oily, sticky or waxy paste.
- **Ice (crystal methamphetamine)** – is a crystal or crystalline powder, and is a stronger form of methamphetamine. It is also known as 'crystal meth', 'shabu' or 'glass'.

Common slang terms for amphetamines include 'speed', 'goey', 'crank' and 'whiz'. They can be injected, snorted, smoked or swallowed.

In 2013, while there was no significant change in the numbers of Australians reporting recent use of methamphetamine (2.1% of Australians over 14 years reported recent use), there was a change in the main form of methamphetamine used. Among this 2.1% of Australians, use of powder decreased significantly from 51% to 29%, while the use of ice (or crystal methamphetamine) more than doubled, from 22% in 2010 to 50% in 2013, according to the 2013 National Drug Strategy Household Survey.

It is illegal to make or sell amphetamines. It is also illegal to possess or use amphetamines, unless they have been prescribed by a doctor for medical reasons.

Ecstasy

Ecstasy ('eckie', 'e' or 'Xtc') is the street term for a range of drugs that are similar in structure to MDMA (methylenedioxyamphetamine), a hallucinogenic amphetamine. Ecstasy has a similar effect to other amphetamines and is usually taken orally in tablet form. Tablets sold as 'ecstasy' in Victoria often contain a mixture of other drugs, such as methylone, MDVP or 2C-I.

Synthetic amphetamines

In recent years, a wide range of synthetic products, claiming to have similar effects to amphetamines, have also been available in Australia. The active ingredient in these products can potentially be a number of chemicals, such as methylenedioxypyrovalerone (MDPV), but it is difficult to know what exactly they contain, and as a result, they can have more unpredictable effects and are potentially more harmful than amphetamines.

How amphetamines work

When we are stressed or under threat, the central nervous system prepares us for physical action by creating particular physiological changes. Amphetamines prompt the brain to initiate this 'fight or flight' response.

These changes include:

- the release of adrenalin and other stress hormones
- increased heart rate and blood pressure
- redirected blood flow into the muscles and away from the gut.

In small doses, amphetamines can banish tiredness and make the user feel alert and refreshed. However, the burst of energy comes at a price. A 'speed crash' always follows the high and may leave the person feeling nauseous, irritable, depressed and extremely exhausted.

Effects of amphetamines

The effects of amphetamines, and how long the effects last, depend on the strength of the dose, the blend of chemicals, and the physical make-up and state of mind of the person taking the drug.

Some of the immediate effects of amphetamines include:

- a burst of energy, making the user talkative, restless and excited
- accelerated heart rate and breathing
- high-blood pressure
- dry mouth and jaw clenching
- sweating
- dilated pupils
- loss of appetite.

Even if the effects of the amphetamines have worn off, there may still be amphetamines in your system. As a rough guide, methamphetamines can be detected in the blood for around four to eight hours after use, and in the urine for around two to five days after use.

Symptoms of high doses of amphetamines

In high doses, amphetamines can make the user feel extremely nervous, anxious, confused and irritable. In some people, this state of mind can lead to hostility, aggression and violence. Unpleasant physical symptoms include heart palpitations, headaches, dizziness, blurred vision and loss of coordination.

Overdose is usually due to taking amphetamines with other drugs, especially depressant drugs such as sleeping pills, opiates and antidepressants. The consequences of overdose include collapse, seizure, heart failure, stroke or death. Amphetamine use can also impair judgement and contribute to accidents, such as road accidents.

Amphetamine dependence, tolerance and withdrawal

It is possible to build up a tolerance to amphetamines, which means the person using the drug needs to take larger doses to achieve the same effect. Over time, the body may come to depend on amphetamines just to function normally. The person craves the drug and their psychological dependence makes them anxious if access is denied, even temporarily.

Withdrawal symptoms can include tiredness, panic attacks, crankiness, extreme hunger, depression and nightmares. Some people experience a pattern of 'binge crash' characterised by using continuously for several days without sleep, followed by a period of heavy sleeping.

Physical effects of long-term amphetamine use

Using amphetamines on a regular basis can lead to significant health problems, including:

- risk of damage to brain cells
- amphetamine psychosis, which includes hallucinations, paranoia and other symptoms similar to schizophrenia. This can lead to behaviour dangerous to the person and to others
- malnutrition, because the drug suppresses appetite
- reduced immunity, due to malnutrition and lack of sleep
- mood swings, depression and panic attacks
- the need to use other drugs, such as sleeping tablets, to balance the effects of amphetamines
- aggression and increased susceptibility to violent rages.

Social effects of long-term amphetamine use

People who regularly use speed can also experience problems with:

- relationships – such as arguments and break-ups
- work or study – including trouble concentrating and reduced performance
- the law – being arrested for possession and use, violence or crimes committed to support use
- finances – such as debt because of an inability to hold down a job or from spending money on amphetamines.

Responding to amphetamine overdose

Medical help should be sought if someone who has taken amphetamines is experiencing seizures, chest pain, high temperature, extreme anxiety, hallucinations or paranoid delusions.

If someone who has taken drugs is experiencing these or any other significant symptoms, **this is a medical emergency. Dial triple zero (000)** to call an ambulance immediately.

Where to get help

- In an emergency, call triple zero (000)
- Your doctor
- DrugInfo Tel. 1300 85 85 84
- DirectLine Tel. 1800 888 236 – for 24-hour confidential drug and alcohol telephone counselling, information and referral
- Family Drug Help Tel. 1300 660 068 – for information and support for people concerned about a relative or friend using drugs

Things to remember

- Amphetamines are psychostimulant drugs that abnormally speed up the functions of the brain and body.
- It is illegal to make or sell amphetamines, and to possess or use them unless under medical supervision.
- Long-term amphetamine misuse can damage the brain and may lead to psychosis, malnutrition and violent

behaviour.

- Call an ambulance if you think someone has overdosed after taking any drugs, including amphetamines.

This page has been produced in consultation with and approved by:

Alcohol and Drug Foundation

Content on this website is provided for education and information purposes only. Information about a therapy, service, product or treatment does not imply endorsement and is not intended to replace advice from your doctor or other registered health professional. Content has been prepared for Victorian residents and wider Australian audiences, and was accurate at the time of publication. Readers should note that, over time, currency and completeness of the information may change. All users are urged to always seek advice from a registered health care professional for diagnosis and answers to their medical questions.

For the latest updates and more information, visit www.betterhealth.vic.gov.au

Copyright © 1999/2018 State of Victoria. Reproduced from the Better Health Channel (www.betterhealth.vic.gov.au) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.