

Patient information from BMJ

Last published: Apr 16, 2024

Amphetamine and methamphetamine use disorder

Amphetamines and methamphetamines are substances used in several medications. But some people take these types of drugs by using them as recreational ("street") drugs.

Taking amphetamines and methamphetamines in this way is dangerous. If you are concerned about your own use, or about use by someone you know, you can use the information in the leaflet to talk with your doctor about getting help.

What are amphetamines and methamphetamines?

Amphetamines (sometimes spelled amfetamines) and methamphetamines are substances that are used in some medications. For example, there are small amounts of amphetamines in medications that are used to treat attention-deficit hyperactivity disorder (ADHD), narcolepsy, depression, and long-term pain.

Amphetamines bought and sold for recreational use come in various forms that contain slightly different mixes of substances.

- Amphetamine sulphate is usually known as "speed"
- 3,4-methylenedioxymethamphetamine is known as "ecstasy" or MDMA
- Methamphetamine is known as "meth", "crystal meth", "ice", or "crank", among other names.

What is amphetamine or methamphetamine use disorder?

People may have amphetamine or methamphetamine use disorder if they regularly take these drugs because of the "high" they give, or for reasons other than medicinal treatment. Some people may be addicted to using them.

Amphetamines and methamphetamines may be taken as pills, injected, smoked, or inhaled through the nose ("snorted") as a powder.

What are the symptoms?

The effects of short-term use are similar to those of many other drugs. There is a short-term energetic “high”, followed by a “crash” or “come-down”. The crash can cause include exhaustion, depression, confusion, and intense hunger.

The physical symptoms of long-term amphetamine or methamphetamine use disorder can include:

- depression
- extreme fatigue (tiredness)
- confusion
- paranoia
- hallucinations (seeing things that aren't really there)
- paranoid psychosis (losing touch with reality)
- memory loss
- weakness and wasting of your muscles
- looking a lot older than you really are
- broken skin
- a feeling of insects crawling all over you (called formication, or “meth bugs”)
- skin infections from using needles
- high blood pressure
- broken or damaged teeth, from grinding.

What are the risks of recreational amphetamine or methamphetamine use?

Some people use amphetamines or methamphetamines occasionally without any obvious ill effects. But the effects of these drugs are unpredictable. They can cause serious health problems, especially when used regularly or in large doses. These problems can also happen to people who use these drugs occasionally or even use them only once. You don't have to be a regular user to experience a dangerous health issue after using amphetamines or methamphetamines. Dangerous health issues include:

- heart attacks
- seizures
- sudden death
- brain bleeds
- coma
- suicide attempts

Amphetamine and methamphetamine use disorder

- hallucinations
- depression
- overdose.

Long-term use of amphetamines or methamphetamines can also lead to problems in other areas of your life. For example legal problems, and problems with relationships, family, work, and money.

As with many recreational drugs, the dangers of amphetamines and methamphetamines don't just come from the drugs themselves. People who produce illegal drugs usually "cut" their product with other substances to bulk them out.

For example, methamphetamine is often cut with extremely dangerous substances including fentanyl (a type of opioid), lithium, hydrochloric acid, sulphuric acid, and iodine).

But even if the bulking substance is not something dangerous it can still cause problems, as it can be difficult to judge how much of the drug you have taken.

For example, if someone is used to taking a certain amount of the drug, and then they take some from a different batch that is stronger (less bulked) it could cause an overdose. This could be fatal.

Other risks of taking amphetamines or methamphetamines include:

- exposure to infections such as HIV and hepatitis (if you inject the drugs)
- permanent damage to the delicate tissues in the nose and to the lungs (if you snort the drugs).

When do people receive treatment for amphetamine or methamphetamine use disorder?

Treatment for amphetamine or methamphetamine use disorder often starts when:

- someone has overdosed
- someone's health has been damaged by long-term use and they need medical treatment
- someone needs emergency medical treatment for another reason linked to their amphetamine or methamphetamine use. For example, they might have drunk a large quantity of alcohol and also used amphetamines, or they might have been injured because of the effects of drugs or alcohol.

What treatments work?

Emergency treatment

If you have swallowed amphetamines or methamphetamines, emergency treatment might involve being given activated charcoal. This needs to be swallowed, either as pills or as powder dissolved in water.

Amphetamine and methamphetamine use disorder

Charcoal works by trapping toxic substances and chemicals so that your body cannot absorb them. For charcoal treatment to work well you need to take it within an hour of taking the amphetamines or methamphetamines.

Emergency treatment might also include:

- treatment to prevent problems with your heart and blood vessels. Amphetamine or methamphetamine use can cause narrowing of the blood vessels, which can lead to serious problems such as heart attacks
- help with breathing, for example being placed on a ventilator
- treatment for agitation and dangerously high blood pressure. This might include antipsychotic or sedative medications to help calm you, which should also lower your blood pressure.

When your doctor thinks that your condition is stable, he or she will want to check whether you have any infectious diseases linked to amphetamine or methamphetamine use, such as HIV and hepatitis. If you have one of these conditions you might need treatment for it.

Longer-term treatment

When you are no longer in immediate physical danger from your amphetamine or methamphetamine use, your treatment should focus on helping you to stop using these substances again.

The treatment you are offered will depend on several things, such as how urgently you need help, and what is available in your area. For example, you might be offered some follow-up appointments with a counsellor or psychologist, or you might be able to enter a drug treatment program.

Whatever type of help you get, it should focus on several areas, including help with:

- social issues. This might include ways to avoid situations and people that make you more likely to use drugs, and how to form positive friendships and relationships that don't revolve around drug use
- psychological issues. For example, you might need treatment for depression. The link between depression and drug use can work both ways. This means that depression can lead to drug use, and that drug use can lead to depression. You might be offered therapy and antidepressant medication. You might also need treatment for other mental-health problems linked to your drug use. Talking therapies such as Cognitive Behavioral Therapy (CBT) can help you understand and change your thinking and behavior.

As part of long-treatment you might be offered medication to help reduce your cravings for amphetamines or methamphetamines.

What will happen?

A good drug-treatment program that offers help with psychological and social issues seems to offer the best chance of staying free of amphetamines and other drugs. But these programs are not always available when and where people need them.

Amphetamine and methamphetamine use disorder

Much of what happens will depend on whether you want to make the most of whatever help you can get and are ready to stop using amphetamines or methamphetamines.

Other things that might affect your treatment include whether you have any legal problems linked to drug use. For example, you might have regular drug tests if you are on parole for offences related to drug use.

You might also have to take regular drug tests if you are part of a longer-term drug-treatment program. These will usually be urine tests.

You might also need regular health checks, to check for heart problems and other issues.

If you continue to use amphetamines or methamphetamines regularly, you should get medical attention urgently if you have chest pain, experience episodes of your heart racing, feel shortness of breath, or you begin to cough up blood.

For further help, there are support groups such as local branches of Narcotics Anonymous that can offer information and support.

The patient information from *BMJ Best Practice* is regularly updated. The most recent version of Best Practice can be found at bestpractice.bmj.com. This information is intended for use by health professionals. It is not a substitute for medical advice. It is strongly recommended that you independently verify any interpretation of this material and, if you have a medical problem, see your doctor.

Please see BMJ's full terms of use at: bmj.com/company/legal-information. BMJ does not make any representations, conditions, warranties or guarantees, whether express or implied, that this material is accurate, complete, up-to-date or fit for any particular purposes.

© BMJ Publishing Group Ltd 2024. All rights reserved.

What did you think about this patient information guide?

Complete the [online survey](#) or scan the QR code to help us to ensure our content is of the highest quality and relevant for patients. The survey is anonymous and will take around 5 minutes to complete.



BMJ Group