

## METHAMPHETAMINE AND THE HEART



### WHAT IS CRYSTAL METHAMPHETAMINE?

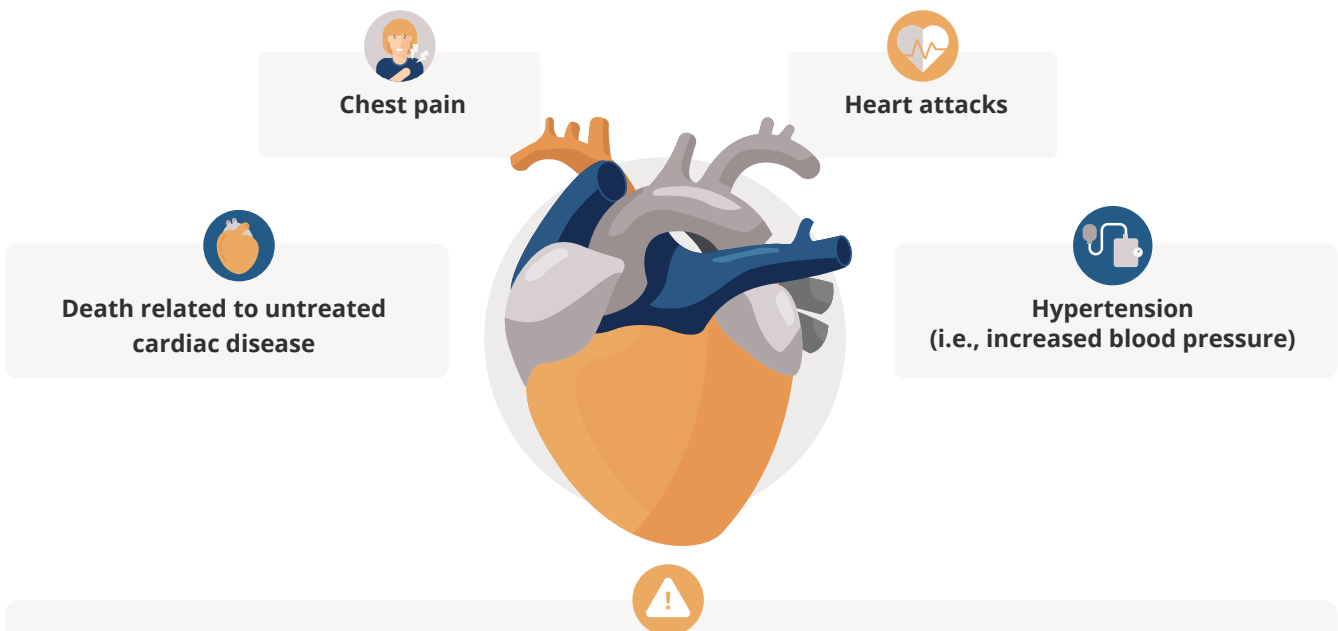
Crystal methamphetamine, or 'ice', is a synthetic (man-made) drug and a variant of methamphetamine. Crystal methamphetamine is often the most potent form of methamphetamine and is usually colourless and odourless. It's a stimulant drug, which means it stimulates the central nervous system, speeding up messages between the brain and body. It's also a multi-system drug that can affect every organ in the body, including the heart.

### HOW METHAMPHETAMINE EFFECTS THE HEART

When a person uses methamphetamine, it causes their heart rate to increase. This can cause stress on the heart, leading to elevated blood pressure and heart rate. With continued use, this can lead to inflammation and scarring, cardiovascular complications, and exacerbation of existing heart conditions a person may have. These effects can be acute or chronic. Acute effects happen suddenly after someone uses methamphetamine and occur for a brief period, whereas chronic effects persist or recur for a long time.

Methamphetamine use has also been associated with symptoms such as an irregular or elevated heartbeat and shortness of breath. However, these symptoms can instead indicate the onset of heart disease.

Some of the major heart issues that can arise from ongoing methamphetamine use include:



#### Methamphetamine associated cardiomyopathy

A form of heart failure associated with ongoing methamphetamine use. Cardiomyopathy is a disease of the heart muscle, where cardiac muscles become weaker over time and struggle to pump blood to the rest of the body.

## THE RISK OF DEVELOPING THESE CONDITIONS CAN INCREASE DUE TO:



Methamphetamine being produced in an unhygienic way, leading to possible contamination with bacteria and viruses



Methamphetamine being used with other drugs, such as alcohol, cocaine, or benzodiazepines. For more information on the effects of using methamphetamine with other drugs, visit: <https://cracksintheice.org.au/using-ice-with-other-drugs>

## INFORMATION FOR PEOPLE WHO USE ICE



If you or someone you know has experienced any of the symptoms described above, visit your GP (local doctor) or local medical centre for medical advice.

A good place to start is by telling them about your symptoms and that you have been using methamphetamine. All health information you share, including information about your drug use, will be kept confidential unless sharing it will help protect the health or safety of you, someone else, or the public.

Stopping or reducing methamphetamine use is the best way to prevent methamphetamine associated heart conditions. To learn more about support services for methamphetamine use, please visit [When and where do I get help?](#)

## INFORMATION FOR HEALTH WORKERS

If a client reports any of the symptoms described above and you are not a registered medical practitioner, refer them to an appropriate medical practitioner for assessment. e.g. a cardiologist.

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Watch our webinar about

**METHAMPHETAMINE AND CARDIAC DAMAGE: SKATING ON THIN ICE**

## REFERENCES:

1. Darke, S., Dufflou, J., & Kaye, S. (2017). Prevalence and nature of cardiovascular disease in methamphetamine-related death: A national study. *Drug and alcohol dependence*, 179, 174–179. <https://doi.org/10.1016/j.drugalcdep.2017.07.001>
2. Kaye, S. & McKetin, R. (2005) *Cardiotoxicity associated with methamphetamine use and signs of cardiovascular pathology among methamphetamine users*, Sydney: National Drug and Alcohol Research Centre.
3. Kevil, C., Goeders, N., Woolard, M., Bhuiyan, M., Dominic, P., & Kolluru, G. et al. (2019). Methamphetamine Use and Cardiovascular Disease. *Arteriosclerosis, Thrombosis, And Vascular Biology*, 39(9), 1739-1746. doi: 10.1161/atvbaha.119.312461
4. Osekowski, M., Trytell, A., La Gerche, A., Prior, D., MacIsaac, A., & Paratz, E. (2022). A Comprehensive Approach to Managing Methamphetamine-Associated Cardiomyopathy. *American Journal Of Cardiovascular Drugs*. doi: 10.1007/s40256-022-00523-y
5. Paratz, E. (2021) *Methamphetamines and cardiac damage: skating on thin ICE*. The Matilda Centre for Research in Mental Health and Substance Use. Retrieved from: <https://cracksintheice.org.au/community-toolkit/webinars/cardiac-damage>