

# [The health effects of ecstasy: A literature review](#)

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## **Abstract**

Ecstasy (3,4-methylenedioxymethamphetamine, MDMA) is the third most used illicit drug, after cannabis and amphetamines. There has been considerable interest in the adverse effects of use, with particular attention given to a small number of deaths related to ecstasy use, and the neurotoxic effects of MDMA. This paper reviews case reports of adverse effects attributed to ecstasy use, and the findings of animal and human studies, so as to identify the health effects of ecstasy use, and factors contributing to their occurrence. The incidence of serious acute adverse events related to ecstasy is low. It is the unpredictability of those adverse events and the risk of mortality and substantial morbidity that makes the health consequences of ecstasy significant. Hyperthermia and hyponatraemia are the most significant acute adverse effects, and can occur even when MDMA is the only drug used. Ecstasy users should be aware of the importance of controlling body temperature and fluid intake, early signs of adverse effects, and the need to seek medical assistance promptly. Neurotoxicity is potentially the most significant long-term effect of ecstasy. The clinical implications of neurotoxicity are uncertain at this time, but short-term memory impairment may be significant.

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