

The debate over ecstasy continues: New study finds evidence of memory impairments with 1 year of recreational use

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There has been significant debate in policy circles about whether governments have over-reacted to ecstasy by issuing warnings against its use and making it illegal. In the UK, David Nutt said ecstasy was less dangerous than horseback riding, which led to him being fired as the government's chief drug advisor. Others have argued that ecstasy is dangerous if you use it a lot, but brief use is safe.

New research published online today by the scientific journal *Addiction*, gives some of the first information available on the actual risk of using ecstasy. It shows that even in recreational amounts over a relatively short time period, [ecstasy users](#) risk specific memory impairments. Further, as the nature of the impairments may not be immediately obvious to the user, it is possible people wouldn't get the signs that they are being damaged by drug use until it is too late.

According to the study, new ecstasy users who took ten or more ecstasy pills over their first year of use showed decreased function of their immediate and short-term memory compared with their pre-ecstasy performance. These findings are associated with damage of the hippocampus, the area of the brain that oversees [memory function](#) and navigation. Interestingly, hippocampal damage is one of the first signs of Alzheimer's disease, resulting in [memory loss](#) and disorientation.

The [study participants](#) took an average of 32 pills each over the course

of the year, or about two and a half pills per month. Some participants took as few as ten pills over the year and still showed signs of [memory impairments](#).

Lead author Dr. Daniel Wagner says: "This study was designed to minimize the methodological limitations of earlier research, in which it was not possible to say whether cognitive impairments seen among ecstasy users were in place before drug use began. By measuring the cognitive function of people with no history of ecstasy use and, one year later, identifying those who had used ecstasy at least ten times and remeasuring their performance, we have been able to start isolating the precise cognitive effects of this drug."

More information: Wagner D., Becker B., Koester P., Gouzoulis-Mayfrank E., and Daumann J. A prospective study of learning, memory, and executive function in new MDMA users. *Addiction*, 107: [doi: 10.1111/j.1360-0443.2012.03977.x](#)

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