



## Vermont Legislative Research Shop

### Ecstasy (MDMA)

#### General Information

The drug MDMA (ecstasy) was first synthesized as an appetite suppressant in 1912 by a German pharmaceutical company but because of its side effects it was never marketed. Authorities relatively ignored MDMA until the late 1970's when it began to reemerge in Europe. Illicit use of MDMA did not become popular in the US until the late 1980's and early 1990's (Drug Enforcement Administration 2000). While MDMA abuse currently is not as widespread as other drugs its use has increased 500% in the last five years. The drug is typically taken orally, usually in tablet or powder form, and its effects last from four to six hours. Users report feeling relaxed, positive, empathetic, and extremely happy. It is also used as an aid to suppress hunger and sleep. To date no substantial reports exist proving that it is physically or mentally addictive though immediate effects include hallucinations, nausea, teeth and muscle cramping, chills, sweats, increase in body heat and blurred vision. Reported after effects include sleep problems, high blood pressure, anxiety, and paranoia.

Several recent studies on primates show that heavy exposure to MDMA can deplete serotonin neurons, which are thought to play a role in regulating mood, memory, sleep, and appetite. Research on the functional consequences of MDMA-induced damage of serotonin producing neurons in humans is at an early stage, and the scientists who conducted the recent studies cannot say definitively that the harm to serotonin neurons account for the memory and mood impairments found in chronic users (US Dept. of Justice 2001). However, the study found that compared to nonusers, heavy MDMA users had significant impairments in visual and verbal memory. The National Institute on Drug Abuse reported that fatalities have been linked to dehydration, hypothermia, cardiac arrest, and kidney failure arising from the body's inability to thermally regulate itself. While death is rare, the risks are heightened in settings in which the users dance for extended periods of time in hot and crowded conditions, where body temperatures can rise as high as 108 degrees. The rare deaths that are associated with the drug MDMA are most often a result of other additives put into the ecstasy pill. An ecstasy additive is being blamed for numerous deaths in Florida and Chicago. The ecstasy pills being blamed for the six deaths in Central Florida and three in Chicago contained PMA (paramethoxyamphetamine), which has been described as "cooking a users brain like a 10-minute egg. It can burn out a person's central nervous system by raising body temperatures as high as 108 degrees" (Brassfield 2000). These ecstasy pills containing PMA have been traced back to illegal labs in Germany and Denmark.

#### Use Statistics

Recent media coverage has closely associated MDMA with clubs, all night raves, college campuses, and rock concerts. MDMA is most often used by young adults and adolescents. According to the National Institute of Drug Abuse, overall teen drug use has remained steady in 1999-2000, while ecstasy use has increased dramatically among 10<sup>th</sup> and 12<sup>th</sup> graders. Increased use of MDMA has been reported in areas such as Boston, Seattle, Atlanta, Chicago, and Miami (Focus Adolescent Services 2000). A recent survey reported that 8% of high school seniors had tried MDMA, up from 5.8% the year before. Authorities point out that the drug MDMA

is marketed to youths because tablets are usually stamped with designs such as cartoon characters, and popular youth product icons. Unlike users of certain other drugs, users of MDMA rarely commit crimes to support a habit. Over 85% of MDMA offenders have little or no criminal history, in contrast to 31% of crack and heroin offenders with no criminal records (Murphy 2001).

National Institute On Drug Abuse. 2000. "Overall Teen Drug Use Stays Level, Use of MDMA And Steroids Increases." ([http://165.112.78.61/NIDA\\_Notes/NNVo115N1/Overall.html](http://165.112.78.61/NIDA_Notes/NNVo115N1/Overall.html))

Stone, Emily. 2001. "State, Police Struggle With Ecstasy." *Burlington Free Press* (<http://www.burlingtonfreepress.com>)

The Center for cognitive liberty & ethics, 2001 (<http://www.cognitiveliberty.org/lawlibrary/mdmainindex.htm>)

US Department of Justice-Drug Enforcement Administration 2001. "MDMA Ecstasy" (<http://www.usdoj.gov/dea/concern/mdma/mdmainindex.htm>)

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