

MSA NEWSLINE

Up-to-date Information on Maternal Substance Abuse and Child Development

New Trends in Drug Usage: MDMA

Physical Effects of MDMA

Dryness of mouth, jaw clenching, teeth grinding, nystagmus (eye wiggles), sweating, nausea, restlessness, dizziness, and fast or pounding heartbeat.

Psychological Effects

Entactogenic Effect: "Touching within", a feeling that all is right and good with the world, a generalized "happy" feeling.

Enhancement or distortion of the senses: touching, vision, taste and smell; different textured objects become fascinating.

"Hug Drug" Effect: novelty of touching and being touched.

Who Uses Ecstasy?

Ecstasy is not restricted to a certain ethnic or SES group. It is used primarily by younger adults. Frighteningly, the age at which ecstasy use is occurring is getting younger. In volume 16 number 2 of NIDA Notes, a study reported an increase in the numbers of teenagers using ecstasy in the eighth, tenth, and twelfth grades.

Examining the Effects of MDMA

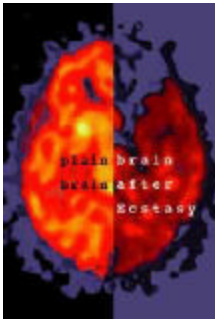
MDMA, more popularly known as ecstasy, has gained an increasing number of users. MDMA is a psychoactive man-made drug with the effects of a stimulant or hallucinogen. MDMA was first produced by a German company to be used as an appetite suppressant, but was quickly abandoned. In the 70's ecstasy reappeared due to a small group of therapists using it to facilitate psychotherapy. In the late 80's and early 90's illicit use of the drug began and its popularity has continued to increase. The belief that the drug is safe is reinforced by the fact that it is not as addictive as cocaine or heroin, which leave users craving more after only one time of using.

At this point, the long term effects of MDMA have just begun to be examined, but some studies have started to uncover the short and long term effects of this drug. In 1998 the National Institute of Mental Health concluded a study of long term MDMA users who had stopped using the drug. Participants were found to have suffered damage to neurons in the brain which transmit serotonin. Serotonin is used by the brain in learning processes, sleep, and integration of emotion. The researchers concluded that recreational ecstasy users are at a risk for developing permanent brain damage masked in the forms of depression, anxiety, memory loss, or other neuro-psychotic disorders.

Researchers at the Children's Hospital Research Foundation and the University of Cincinnati College of Medicine recently completed a study on prenatal exposure of ecstasy on rats. Ecstasy or MDMA was given to newborn rats either twice a day for 10 days after birth or twice a day from day 11 to day 20 after birth. These times in rats are comparable to early third trimester and late third trimester brain development in humans. Memory and learning deficiencies were found to be long term and last into adulthood. The complete study can be found in the May 2001 issue of The Journal of Neuroscience.

The belief that this "club drug" is safe is reinforced by the fact that it is not as addictive as cocaine or heroin....

If this is your brain on ecstasy, imagine its effects on a developing fetus....



This picture shows two images of a brain; the image on the left is of an individual who has never used drugs, and the image on the right is an ecstasy user who has abstained from use for three weeks prior to the brain scan. The bright reddish areas are serotonin sites in the brain which regulate mood, emotion,

Ecstasy users are mainly young men and women, in the prime of their childbearing years. The psychological effects of ecstasy have been described as ego softening, a dissolving of all fears, and feelings of emotionally based love and empathy. The combination of the age of the users and the above mentioned effects often have negative consequences: they can result in unprotected sex and unwanted pregnancies. Prevention campaigns should be increased to alert people to the risks of ecstasy use, and to forewarn users of the risks of prenatal exposure to ecstasy.

For more information regarding this subject or other related topics, please contact Crystal Barron, Maternal Substance Abuse and Child Development Project, Emory University School of Medicine, Department of Psychiatry and Behavioral Sciences, Emory West Campus, 1256 Briarcliff Road, N.E., Suite 324W, Atlanta, GA., 30306. You can also phone us at 404-712-9829 or check our website at www.emory.edu/MSACD

learning, memory, and sleep. The dark sections on the image on the left are serotonin sites that are no longer present due to ecstasy use. Although serotonin sites do re-grow, they do not grow back normally and they do not always grow back in the right locations.

For more information on MDMA, visit these websites

www.drugabuse.gov

www.clubdrugs.org

www.nida.nih.gov



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The *Maternal Substance Abuse and Child Development Project* is dedicated to the study and prevention of the effects of maternal substance abuse. Since 1978, the project has studied the development of children exposed to alcohol and other drugs prenatally and their caregivers and provided training for Prevention statewide. For additional information call (404) 712-9800.