



"Ecstasy"

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It is estimated that there are some 500,000 regular users of the drug Ecstasy in the United Kingdom. Very much a part of the club scene, this little understood drug has killed 15 young people to date and doctors are concerned about the long term effects from continued use which will not become evident for some years.

What is Ecstasy?

Ecstasy is chemically known as MDMA or Methylene Dioximethamphetamine and, like amphetamines, it is a stimulant to the central nervous system. Sometimes MDMA is classified as a hallucinogen: this is due to its chemical make up. If the chemicals are combined to produce MDMA (or MDA), it is less hallucinogenic than dimethoxy-methylphenethylamine (DOM) which is purported to have similar effects to amphetamines and LSD. In low doses, therefore, Ecstasy does not seem to have hallucinogenic effects: however, when more is taken (which would correspond with the 'stronger' chemical compositions) it does.

Ecstasy takes the form of pills, though there are scores of different types. According to some sources, six new designs are produced every month. Some include red and black capsules, known as "Dennis the Menace", "White Doves" - white pills with dove imprints, "hamburgers" - white or off-white tablets and "Disco-Biscuits" - large flat white tablets with brown speckles.

History

MDA was first synthesized in Germany in 1898 and marketed as an appetite suppressant in 1914. In 1941, the drug was tested as a relief for Parkinsons disease but dropped when one trial subject experienced rigidity of the muscles. At about the same time, the drug was dropped as an appetite suppressant because strange side effects were noted. In the 1960's it was widely used as the "love drug," but was controlled, first in the US and later in Britain. MDMA (Ecstasy) was synthesized in 1914 and gained prominence around 1972 as a

legal alternative to MDA. Some therapists in the United States used it as a means of reducing hostility in marriage counseling sessions but the recreational use became so wide spread that it was banned in 1985. In the UK, however, it, along with all other amphetamine-like substances, was controlled in 1977. It was designated a Class A drug which incurs the stiffest penalties under the law. It is also a Schedule I drug which means that doctors cannot prescribe it and a license is required in order to conduct research on it.

Effects on the Body

Ecstasy is taken because of its reputation of producing a feeling of expansive well-being. It also creates a "high" that masks the feeling of tiredness allowing the user to go without sleep (to party or "rave all night"). There are physical changes in the body that produce these effects and also account for the adverse - and often dangerous - side effects.

Any drug that enters the body gets to the brain, which is the control center for all our thoughts, actions and sensations. All of these are controlled by different chemical messengers called neurotransmitters. Ecstasy effects a neurotransmitter called serotonin, which controls our sensations of hunger, fatigue and depression. If adequate amounts of serotonin are being produced by the brain, we will sense hunger and fatigue when our bodies need nourishment or rest; we will also feel emotionally stable. If the brain produces too little serotonin, we feel depressed and not tend to our bodies' needs of nourishment and rest.

Dangers of Ecstasy

Ecstasy is a stimulant which means that it causes more neurotransmitters to be increased at a greater speed, thereby causing a "high." The problem with this excess production of serotonin occurs when, as the effects of the drug wear off, the brain cannot refuel. In other words, supplies of serotonin are temporarily used up -

and the person "crashes" - that is, becomes severely depressed and very tired. Continued use can result in permanent damage to the brain. Some research has pointed to symptoms similar to those of patients with Alzheimer's in the brains of animals injected with Ecstasy. Whether or not this is proven conclusively, it has already been found in research reported from Guy's Hospital Poisons Unit that Ecstasy is the only drug to permanently damage the nerve terminals in the brain. Doctors are also worried that in ten to fifteen years time, there may be a generation of suicidally depressed people who have used Ecstasy on a regular basis.

In addition to the direct effects of Ecstasy on the brain, there are side-effects to the body which are noted in the reported fatalities to users. If users have not noticed that they are getting tired due to the stimulating effects of the drug, they would continue to dance, raising their body temperature and tiring or straining muscles and impacting their bones. If, as in many clubs, users have been drinking alcohol, which is a dehydrating substance, their bodies would become dehydrated. This, along with the raised body temperature has caused collapse and possible failure of body organs like the kidneys, heart and/or liver.

Another frightening report has been that of internal hemorrhaging (bleeding) in users. This could be due to Ecstasy having anti-coagulative properties (it stops blood from clotting) leading to the risk of users' bleeding to death.

There is also the risk of drug sellers deceiving users wishing to buy Ecstasy; a wide range of products have been passed off as Ecstasy. These range from pure amphetamines, paracetamol, methadone and any

mixture of these with pure Ecstasy in addition to some more alarming items such as worming pills and fish tank oxygenating tablets. Apart from the user conducting a chemical analysis on every tablet they take, they will have no guarantee as to the purity of the product.

References:

- ◆ *Drugs - the Altered Brain* by Nydia Hanna. Hazelden Foundation, 1990
- ◆ "Ecstasy" by Mandi Jones. *The Face* No. 38, November 1991
- ◆ "Toxicity and Death from MDMA" Dr. John Henry. *The Lancet*, August 15, 1992
- ◆ *Ecstasy ISDD Drug Notes*

If you suspect a problem with Ecstasy and/or other drug use, please contact the **National Drug Information Treatment and Referral Hotline at (800) 662-HELP (4357)**. They can supply you with:

- ◆ printed materials
- ◆ treatment services in your state
- ◆ referrals for treatment
- ◆ alcohol treatment services
- ◆ adolescent and family services in your state

For more information about Ecstasy, Alcohol and Other Drugs, as well as related topics call:

The Connecticut Clearinghouse at 1-800-232-4424 or visit its Web Site at:

<http://www.ctclearinghouse.org>.

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