

## Capsules

### MDMA

MDMA, called "ADAM," "Ecstasy," or "X-TC," on the street, is a synthetic, psychoactive (mind-altering) drug with hallucinogenic and amphetamine-like properties. Its chemical structure (3,4-methylenedioxymethamphetamine) is very similar to two other synthetic drugs: MDA and methamphetamine, which are known to cause brain damage. MDMA is a so-called "designer drug," which, according to the Drug Enforcement Administration (DEA), has become a nationwide problem as well as a serious health threat. It has been known to be the cause of at least two deaths.

Beliefs about Ecstasy are reminiscent of similar claims made about LSD in the 1950's and 1960's, which proved to be untrue. According to its proponents, MDMA can make people trust one another and break down barriers between therapists and patients, lovers, and family members.

Many of the problems users encounter with MDMA are similar to those found with the use of amphetamines and cocaine. They are:

Psychological difficulties, including confusion, depression, sleep problems, drug craving, severe anxiety and paranoia--during and sometimes weeks after taking MDMA. Even psychotic episodes have been reported.

Physical symptoms such as muscle tension, involuntary teeth clenching, nausea, blurred vision, rapid eye movements, faintness and chills or sweating.

Increases in heart rate and blood pressure, a special risk for people with circulatory or heart disease.

The National Institute on Drug Abuse (NIDA) has arranged to have MDMA synthesized so qualified researchers can conduct studies on the drug's long-term neurotoxicity and abuse potential. It is believed that this research will indicate that it causes brain damage, just as MDA and methamphetamine do.

MDA, the parent drug of MDMA, is an amphetamine-like drug which has also been abused and is very similar in chemical structure to MDMA. According to NIDA-supported researchers Drs. L.S. Seiden and C.R. Schuster of the University of Chicago, MDA destroys serotonin-producing neurons, which play a direct role in regulating aggression, mood, sexual activity, sleep, and sensitivity to pain. It is probably this action on the serotonin system which gives MDA its purported properties of heightened sexual experience, tranquility, and conviviality.

MDMA is also related in structure and effects to methamphetamine. Methamphetamine has been shown by the Chicago researchers to cause degeneration of neurons containing the neurotransmitter dopamine. Damage to these neurons is the underlying cause of the motor disturbances seen in Parkinson's disease.

In laboratory experiments, a single exposure to methamphetamine at high doses or prolonged use at low doses destroys up to 50 percent of the brain cells which use dopamine. Although this damage may not be immediately apparent, scientists feel that with aging or exposure to other toxic agents, Parkinsonian symptoms may eventually emerge. These symptoms begin with lack of coordination and tremors and may eventually result in a form of paralysis.

DEA officials have said that that the drug is available in at least 21 states and Canada and is especially popular with college students and young professionals. Areas of concentrated use include California, Texas, Florida, New York and New England. Treatment authorities in California report at least 3-4 MDMA related cases per month in 1985.

In June, 1985, DEA banned MDMA, placing the drug in the Schedule I classification based on the Controlled Substances Act. The emergency scheduling was effective July 1, 1985. Schedule I drugs are generally dangerous narcotics that have a high potential for abuse and no medical usefulness. Other drugs in Schedule I include heroin, LSD, and MDA. Manufacturers and sellers of Schedule I drugs are subject to fines of up to \$125,000 and 15 year prison terms. The scheduling will be effective for one year, during which time authorities will decide how best to classify MDMA based on hearings and scientific research. Until it became illegal, MDMA was used by some psychiatrists and therapists as an aid in psychotherapy.

The Justice Department has proposed legislation to combat designer drugs such as MDMA. A "designer drug" is a term used to refer to a substance that appears in the illicit drug market that is a chemical analogue or variation of another psychoactive drug. Underground chemists produce these new drugs by slightly changing the chemical composition of illegal drugs so that they are technically legal. In many cases, the new designer drugs are more dangerous and more potent than the original drug. Legislation would call for a 15 year prison sentence and \$250,000 fine for those convicted of producing such drugs.

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