

# Ecstasy

Ecstasy, commonly known as "X" and chemically known as "MDMA (3-4 methylenedioxyamphetamine) is a synthetic, psychoactive drug typically found at rave parties and nightclubs frequented by youth and young adults. Considered a "neurotoxic" in reference to its serious and potentially lethal effects on the brain, X is chemically similar to methamphetamine (see meth) and can lead to death after a very short period of use.

## PHYSICAL EFFECTS

X primarily affects the neurons in the brain that control serotonin, dopamine, and norepinephrine, neurotransmitters that regulate mood, aggression, sexual activity, sleep, and sensitivity to pain. X causes an increased release of neurotransmitters from their storage sites, and therefore an increase in brain activity. Users of X report intensely pleasurable feelings including enhanced self-confidence and energy, peacefulness, acceptance, and empathy. Users also report an increased desire both of closeness and to touch others. However, it takes the brain a much longer period of time to rebuild neurotransmitters than it takes X to unnaturally release neurotransmitters from storage sites, causing a significant depletion in neurotransmitters.

While the pleasurable effects of X typically last between 4-6 hours, other side effects can last much longer and include but are not limited to physical effects such as hyperthermia, an extreme rise in body temperature (resulting in liver, kidney, and/or cardiovascular failure), increased heart rate and blood pressure, circulatory problems, muscle tension, involuntary teeth clenching, loss of inhibitions, seizures, nausea, blurred vision, fainting, tremors, chills, sweating, and psychological effects such as confusion, depression, sleep problems, drug craving, and severe anxiety. X also decreases one's cognitive skills such as memory.

A research study in nonhuman primates found that exposure to X for only 4 days caused damage to serotonin nerve terminals that was evident 6-7 years later. Although similar research with regards to the neurotoxicity of X in humans not definitive, the wealth of animal research indicates that X is not a safe drug for human consumption, and that's damaging properties are infinite.

Another serious concern with regards to the physical and psychological effects of X is drug purity. MDA (methylenedioxyamphetamine), the parent drug of X, and PMA (paramethoxyamphetamine), an illegal synthetic hallucinogen, are sometimes sold as X. These drugs create additional health risks to the user, and increase the risk of permanent neurotransmitter-related brain damage. In addition, X may be mixed with ketamine (an anesthetic mostly used by veterinarians), caffeine, codeine, dextromethorphan (DXM - a PCP-like substance), mescaline, cocaine, and/or methamphetamine. All of the aforementioned substances increase the risk X poses to the user, and can lead to a new host of side effects and long-term damage.

## LEGAL CONCERNS

Although at one time X was used by some therapists in the United States to facilitate psychotherapy, as of 1988 X became a Schedule I substance as classified by the Controlled Substances Act. With the Ecstasy Anti-Proliferation Act of 2000 the sentence for trafficking 800 pill (approximately 200 grams) of X increased from 15 months in prison to 5 years. It also increased the sentence for trafficking 8,000 pills from 41 months to 10 years, an almost 200% increase in penalty. These new sentences became effective on 11/1/01. In 1999 the National Institute on Drug Abuse (NIDA) launched a national research/education initiative "Club Drugs: Raves, Risk, and Research" designed to combat the use of club drugs such as X through the education of teens, young adults, parents, and educators. In February 2002 the Partnership for a Drug-Free America launched another national X related education campaign, focusing on television and print-advertising aimed at teens and their parents.

Per the 1988 United Nations Drug Convention nations became obligated to control their chemical commerce to and to cooperate with national drug control efforts. However, the process is of controlling the world's ever growing supply of X is difficult if not impossible, and X continues to be produced at clandestine laboratories and used by teens and young adults worldwide. Mostly produced in Western Europe, specifically in Belgium and the Netherlands, X is trafficked worldwide averaging \$5-\$17 per standard tablet, with a slightly higher range of \$10-\$60 per standard tablet in the United States.

## STUDENT USE

In 2002 approximately 75% of national emergency department visits in which X played a role were attributed to individuals under age 25. While a large percentage of said visits were for X-related overdose, the statistical majority of ED X-related visits were a result of "unexpected side effects", often attributed to lack of drug purity. In addition, 72% of X-related ED visits found X to have been taken in conjunction with another substance such as alcohol, marijuana, LSD, heroin, prescription pills such as antidepressants and/or benzodiazepines, Viagra, and/or nitrous oxide. A 2002 national survey found that 15.1% of 18-25 year-olds had used X at least once in their lifetime, including 12.7% of college students, 6.2% of whom reported having used X within the past year.

## LINKS AND RESOURCES

National Institute on Drug Abuse  
<http://www.drugabuse.gov/Infofacts/ecstasy.html>

ONDCP  
<http://www.whitehousedrugpolicy.gov/publications/factsht/mdma/>

do it now! Foundation  
<http://www.doitnow.org>