

# Ecstasy

*WHAT IS ECSTASY?*

*WHAT ARE THE EFFECTS OF ECTASY?*

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## ***The Complete XTC-Report***

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**Written By: Jon M. Taylor**

**Introduction**

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**Miscellany**

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**Study: Computer**

**Sources:**

*<http://www.worldforumdrugs-dependencies.com>*

*[http:// www.forums.alternet.org](http://www.forums.alternet.org)*

## WHAT IS ECSTASY?

Ecstasy is MDMA, or 3,4-Methylenedioxymethamphetamine. It belongs to a family of drugs called "entactogens," which literally means "touching within." Other drugs in this category include MDA, MDE and MBDB.

Ecstasy is an illegal synthetic, or designer, drug. Designer drugs mimic an already illegal drug by slightly altering the chemical composition. Ecstasy is similar to methamphetamine and MDA, which is another designer drug, in its chemistry, therefore it may have similar effects to other amphetamines. The amount of MDMA needed to get "high" is close to the toxic dose. Ecstasy acts as a stimulant to the central nervous system.

Ecstasy can be found in a capsule or pill form, of various colors. It may also be in powder form. Ecstasy (Ecstasy, Exstasy, MDMA) is commonly used at "rave" party settings. "Raves" are all night parties known for their dance music and drug experimentation. Other names for Ecstasy are wonder drug and XTC, X, Extasy, E, Extacy. This drug was first patented by a German pharmaceutical company in the 1910's but it was never marketed. Before it was made illegal in 1985, Ecstasy was used by psychiatrists as a therapeutic tool. Studies are currently underway in Spain and Israel assessing Ecstasy's effectiveness in the treatment of Post Traumatic Stress Disorder (PTSD).

## WHAT ARE THE EFFECTS OF ECSTASY?

Ecstasy (Ecstasy, Exstasy, MDMA) is a "mood elevator" that produces a relaxed, euphoric state. It does not produce hallucinations. Ecstasy takes effect 20 to 40 minutes after taking a tablet, with little rushes of exhilaration which can be accompanied by nausea. 60 to 90 minutes after taking the drug, the user feels the peak effects. Sensations are enhanced and the user experiences heightened feelings of empathy, emotional warmth, and self-acceptance. The effects of 'real' Exstasy subside after about 3-5 hours. Users report that the experience is very pleasant and highly controllable. Even at the peak of the effect, people can usually deal with important matters. The effect that makes MDMA different from other drugs is empathy, the sensation of understanding and accepting others.

### IMMEDIATE EFFECTS OF ECSTASY

- feelings of detachment
- Loss of drives such as hunger, sleep
- muscle tension
- blurred vision/rapid eye movements
- sweating or chills
- insomnia
- tremors
- hypertension
- increase in heart rate
- decrease in appetite
- dehydration
- nausea
- fainting
- death

### LONG TERM EFFECTS OF ECSTASY

- anorexia
- high blood pressure
- kidney failure
- stroke
- change in emotion
- affects memory
- change in brain chemicals

Recent studies on rats and monkeys indicate that Exstasy causes permanent brain damage in the areas critical to thought and memory and that it damages the neurons that use serotonin to communicate with other neurons. Users who develop an acne-like rash and continue to use Exstasy are at increased risk of severe liver damage. Exstasy may alter motor skills, giving the user the appearance of suffering from Parkinson's disease.

### PSYCHOLOGICAL EFFECTS OF ECSTASY

- confusion
- depression
- sleep problems
- anxiety
- paranoia
- hallucinations
- panic

- psychotic episodes
- confusion, depression, sleep problems
- drug craving, severe anxiety, and paranoia - during and sometimes weeks after.

Ecstasy use greatly increases blood pressure and heart rate. Body temperature can increase to 109 degrees if taken at a club or rave where there is physical exertion. Obvious physical effects include muscle tension, involuntary teeth clenching, nausea, blurred vision, rapid eye movement, faintness, chills or sweating, extreme relaxation, and tremors. Use can result in heart failure or heat stroke.

## *ECSTASY, WHAT IS THE DOSAGE?*

Ecstasy is almost always swallowed as a tablet or capsule. A normal dose is around 100-125 mg. Black market "Ecstasy (Ecstasy, Ecstasy, MDMA)" tablets vary widely in strength, and often contain other drugs.

## *IS ECSTASY ADDICTIVE?*

Ecstasy is not physically addictive. However, the drug can often take on great importance in people's lives, and some people become rather compulsive in their use. Taken too frequently, however, Ecstasy loses its special effect. Ecstasy releases the brain chemical serotonin, elevating mood and acting as a short-term antidepressant. Compulsive users may be unconsciously trying to self-medicate for depression. Effective treatments for depression are available with the proper diagnosis by a qualified physician.

## *ECSTASY RESEARCH*

Ecstasy (Ecstasy, Ecstasy, MDMA) can deplete as much as 90% of the brain's serotonin supply with two weeks of use. Serotonin is a neurotransmitter in the brain which controls activities such as regulating aggression, thinking, sleeping, eating, sensitivity to pain, and mood.

Brain imaging research in humans indicates that Ecstasy (Ecstasy, Ecstasy, MDMA) - causes injury to the brain, affecting neurons that use the chemical serotonin to communicate with other neurons. The serotonin system plays a direct role in regulating mood, aggression, sexual activity, sleep, and sensitivity to pain. Many of the risks users face with MDMA Ecstasy - use are similar to those found with the use of cocaine and amphetamines: Drinking too much water after taking Ecstasy (Ecstasy, Ecstasy, MDMA) can be lethal according to "New Science, Nov 2000". After people have taken Ecstasy (Ecstasy, Ecstasy, MDMA), their blood contains unusually high concentrations of vasopressin. As levels of this hormone increase, the body retains more water diluting the sodium and other salts in the blood. This can swell the brain causing damage to the brain and nerve tissue.

"Leah Betts lived and died in the UK. She took a tablet containing 90mg of MDMA on her 18th birthday at home. During her trip she drank 3 litres of water in less than an hour. With the MDMA slowing her body functions, the excess water was absorbed by her brain, which swelled and she went into a coma. She died several days later."

Ecstasy (Ecstasy, Ecstasy, MDMA) is illegal and a conviction for possession can carry long prison sentences. Frequent or high doses have been linked to neurotoxic damage in laboratory animals. It is still unknown whether such damage occurs in humans or, if it does, whether this has any long-term, negative consequences.

Some people experience depression after taking Ecstasy (Ecstasy, Ecstasy, MDMA). This is caused by Ecstasy (Ecstasy, Ecstasy, MDMA)'s action on certain brain chemicals. There have been some deaths associated with Ecstasy (Ecstasy, Ecstasy, MDMA). Usually these have been a result of heatstroke from dancing for long periods of time in hot clubs without replenishing lost body fluids. Much of what is sold as "Ecstasy (Ecstasy, Ecstasy, MDMA)" on the black market actually contains other drugs, some of which can be more dangerous than Ecstasy (Ecstasy, Ecstasy, MDMA), like PMA, speed, DXM and PCP. Mixing Ecstasy (Ecstasy, Ecstasy, MDMA) with alcohol or other drugs increases the risk of adverse reactions.

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

Increases in heart rate and blood pressure, a special risk for people with circulatory or heart disease. Also, there is evidence that people who develop a rash that looks like acne after using Ecstasy (Ecstasy, Ecstasy, MDMA) - may be risking severe side effects, including liver damage, if they continue to use the drug.

# XTC-Info

## *The Complete XTC-Report*

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**Latest revision of my MDMA FAQ**

**Date: 16 Feb 1994**

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## I. Introduction

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### Disclaimer:

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This file is an attempt to codify the large amount of information about MDMA that is floating around on the net in various stages of organization into one easy-to-read document. It is NOT intended to be a summary of everything that has ever been written about MDMA, only the most (F)requently (A)sked (Q)uestions. If you find anything that you feel should be added, changed, deleted, or properly accredited, let me know. This FAQ list is provided for informational purposes ONLY. I do not advocate the use of anything described in this document, and accept NO responsibility for any harm that might occur as a result of acting on any of the information contained here. I have made every effort to ensure the validity of the information contained in this document, but I cannot guarantee 100% accuracy. Read at your own risk.

### Credits:

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Many people on the net have provided much of the information that went into making this FAQ list. If you have contributed something to this FAQ and are not in the credits, please let me know.  
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## II. Overview

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### General:

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MDMA (also commonly known as Ecstasy, X, E, XTC, Adam, etc.) is a drug. In its pure form, it is a white crystalline powder. It usually either seen in powder form, as pressed pills, or in capsules. Average cost ranges from \$10- \$30 (US) a hit. Common methods of ingestion are swallowing or snorting, although it can be smoked or injected as well. Currently, MDMA is DEA schedule I, and is illegal to manufacture, possess or sell in the United States. Most other countries have similar laws.

### History:

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MDA, an analog of MDMA, was first synthesized in 1917 by the Merck chemical company as an appetite suppressant. Because of the "adverse" mental effects of the drug, it was not marketed and the patent expired. MDA resurfaced as a recreational drug in the late sixties, and in the early seventies MDMA began to appear. By the late seventies MDMA had dramatically increased in popularity, and by the early eighties it had come to the attention of the DEA. MDMA was placed in DEA schedule I in 1985. It's placement in schedule I was challenged in court, and the DEA lost and was ordered to reconsider the scheduling. They "reconsidered", and left it as schedule I.

## **Dosage and Effects:**

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An average dose of MDMA is around 100-150 milligrams (orally). If it is eaten, the effects will manifest themselves at about 45 minutes after ingestion; snorting, smoking or injecting it produce much more rapid effects. If taken orally, physical effects last about 8 hours. Mental effects last much longer, trailing off over a period of 1-2 days. If snorted, smoked or injected, the duration of the effects is reduced, but the intensity of the mental effects will not be much greater than if taken orally.

The physical effects of MDMA are pretty much the same as the physical effects of amphetamines (that is, general potentiation of the nervous system). These include euphoria, hyperexcitability, extreme nervousness, accelerated heartbeat, sweating, dizziness, restlessness, insomnia, tooth grinding, incessant talking, and other effects. Paradoxically, the effects may be experienced simultaneously with a feeling of relaxation caused by the mental effects.

The mental effects are a bit more difficult to describe, since they are many and of widely varying effects. The major ones are:

### **- Entactogenesis (meaning "touching within")**

This is a generalized feeling that all is right and good with the world. People on MDMA often describe feeling "at peace" or experiencing a generalized "happy" feeling. Also, common everyday things may seem to be abnormally beautiful or interesting. Alexander Shulgin reported that mountains that he had observed many times before appeared to be so beautiful that he could barely stand looking at them when he was on MDMA.

### **- Empathogenesis**

Empathogenesis is a feeling of emotional closeness to others coupled with a breakdown of personal communication barriers. People on MDMA report feeling much more at ease talking to others and that any hangups that one may have with regard to "opening up" to others may be reduced or even eliminated entirely. This effect is partially responsible for MDMA being labeled as a "hug drug" - the increased emotional closeness makes personal contact very rewarding. Many people use MDMA primarily for this effect, reporting that it makes potentially awkward or uncomfortable social situations (singles bars, dance clubs, first dates, etc.) much more easily dealt with. "It [conversation] just flows like water" said one person. "It seems like you know exactly what to say and when to say it. It's like a filter between what you want to express and what comes out of your mouth that you didn't even know existed is stripped away." This same person also reported that they used to use alcohol for many of these same reasons, but found MDMA to be much better suited to this purpose.

### **- Psychiatric effects**

Before it was made illegal, MDMA was starting to gain a reputation among the psychiatric community as a very useful therapeutic tool. People under its influence often report seeing their personal problems in a whole new light. "I was completely blown away the first time I did X" said the same person quoted above. "I saw some of my problems that I didn't even know I had! All of a sudden, it seemed like the source, nature and sometimes even the solution of all my personal difficulties were completely obvious." Surfacing of repressed memories has also been reported.

### **- Mild visual hallucinations**

MDMA is not classified as a hallucinogen, but subtle visual distortions are often experienced.

### **- An enhancement and distortion of the senses.**

Many strange sensory enhancements and distortions can be caused by MDMA. People on MDMA can experience distortions of taste, smell, and touch. It is possible that the mild visual distortions (see above) may also be a function of this distortion of the senses. MDMAers can sometimes be seen running their hands over differently textured objects repeatedly, passing around scented nasal inhalers, or tasting a variety of foods/drinks. This effect also contributes to the "hug drug" effect because of the strange feeling of running one's hands over skin and having one's skin rubbed by someone else's hands.

Repeated dosages of MDMA will cause the amphetamine-like effects to continue, but the mental effects will start to fade and can only be fully brought back by ceasing intake of the drug for a period of time - usually about a week. Also, there is a limit beyond which the mental effects will not increase in intensity no matter how much of the drug is taken (the "ceiling effect"). Thus, repeated ingestion of the drug to produce an extended period of euphoria is not common, and is seen primarily in conjunction with a pattern of methamphetamine abuse.

## Side effects, contraindications and other health information:

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MDMA causes increases in heart rate and blood pressure in most people, similar to those generated by moderate exercise. Because of this, people with a history of high blood pressure, heart trouble, stroke or hypersensitivity to drugs should not use MDMA, or should at the very least start with a much lower than average dose. Also, MDMA \*should not ever\* be combined with Monoamine Oxidase Inhibitors (MAOIs). These are usually found in prescribed antidepressants, but if you are taking ANY prescription medication you should first check the label or ask a doctor or pharmacist to see if it is a MAOI before combining it with MDMA. Also be aware that some antidepressants (most notably Prozac and Zoloft) can inhibit some of the effects of MDMA.

The euphoria that MDMA induces can make it easy to ignore bodily distress signals, so be very watchful for things like dehydration, muscle cramping dizziness, exhaustion or overexertion. Several reports from England tell of all-night ravers dancing themselves into severe dehydration and heat exhaustion that required hospitalization.

MDMA users also commonly report a "burnout" for one-two days afterward, characterized by tiredness, soreness, and dullness of the senses and mental processes. It is possible that this is a result of temporary depletion of certain neurotransmitters in the brain (see the action mechanism section below), and that the brain needs time to replenish them before normal mental processes are restored.

Combining MDMA and other recreational drugs is a popular activity. Here is a chart of commonly encountered drugs and some of their potential physical interactions when combined with MDMA:

Drug	Reaction Information
Marijuana	No dangerous reactions.
LSD or other hallucinogens	No dangerous reactions.
Amphetamines	Amphetamine overdose probability is dramatically increased. strongly discouraged.
Cocaine	Same as Amphetamines.
Heroin or other opiates	No dangerous reaction, but the stimulant effect of the MDMA may that MDMA normally causes. Not recommended.
Tobacco	No dangerous reactions.
Alcohol	Same as Heroin, also can dangerously exacerbate the dehydration that MDMA normally causes. Not recommended.

*Note that this chart does not cover cross-reactions of mental effects.*

*This will be covered in the next section on "How to have a good time".*

## How to have a good time:

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MDMA is used by different people for different things. Because the drug has such a wide range of effects, it can add to almost any activity. Here are some of the more common activities than people take MDMA and engage in.

### - Raves

One of the most common settings for an MDMA trip is a rave, which is a type of dance club. Ravers on MDMA usually dance for long periods of time, an activity in which the amphetamine-like effects of MDMA play a large part. Raves are also a place where people who want to be around lots of others who are also on MDMA can go. The whole atmosphere of a Rave is conducive to enjoying the MDMA experience, so they can be very fun places to go. For more info on raves, subscribe to the newsgroup ALT.RAVE or FTP the ALT.RAVE FAQ from TECHNO.STANFORD.EDU in the /pub/raves directory.

### - Self-psychotherapy

Since MDMA can catalyze a broad range of psychotherapeutic mental effects (surfacing of repressed memories, dealing with emotional problems, etc.), MDMAers sometimes will trip by themselves and spend the experience thinking about their problems. It has been said that "one hit of X

[MDMA] is worth 3 months of conventional psychotherapy". Whether that is an exaggeration or not, MDMA has been praised by many psychotherapists as a very effective means of dealing with personal issues. People who favor this MDMA experience often will want to talk to other people they are close to in order to discuss some of their personal issues that the MDMA has made them more aware of.

**- A replacement for speed**

MDMA is also sometimes used for some of the same things that amphetamines are used for, typically activities that require concentration, motivation, creativity or energy. Doing homework, studying, playing video games, dieting, writing, and driving long distances are just some of the many activities that the stimulant effects of MDMA can make easier or more enjoyable. Warning - some of these activities could be hazardous. Always listen to what your body is telling you and use your better judgement.

**- The sensorium**

The sensory distortion of MDMA can make sensual activities very enjoyable. Touching can become such an intensely pleasurable sensation that close personal contact (sexual or otherwise) can be very fun, especially when coupled with MDMA's empathogenic effects. Hugging someone and running your hands over them are such a common thing to see people on MDMA doing that it is known to some as the 'Hug Drug'. Eating and drinking, smelling flowers and even going to the bathroom (!) can become very entertaining on MDMA.

The above are just some of the many activities that can be enjoyed more fully while on MDMA. Use your imagination, and many others will occur to you.

MDMA can also be mixed with other drugs for a different experience. The health hazards of each of these combinations were discussed in the section on contraindications. Here are the mental effects: (note that this is based on subjective information. Personal reactions may differ.)

<b>Drug</b>	<b>Information</b>
<b>Marijuana</b>	<b>Fun, but can cloud the mental effects of the MDMA. Have to smoke more before you notice it.</b>
<b>LSD or other hallucinogens</b>	<b>Can go very well together. LSD and MDMA is commonly known as "candyflipping". Low doses of the hallucinogen are common.</b>
<b>Amphetamines</b>	<b>You're already speeding. Why bother? Health risks noted in contraindications section. NOTE: I have been told that the duration of the mental effects of MDMA can be extended using amphetamines after coming down off the MDMA.</b>
<b>Cocaine</b>	<b>Same as Amphetamines.</b>
<b>Heroin or other opiates</b>	<b>In terminal cancer patients, MDMA has been used to restore the lucidity that the opiates often obscure.</b>
<b>Tobacco</b>	<b>Tastes REALLY good  -&gt;. Easy to smoke too much</b>
<b>Alcohol</b>	<b>Sometimes helps if the amphetamine-like effects get too harsh. Other than that, MDMA is better than alcohol for every reason you'd drink (social lubricant and all that).</b>

Note that one of the basic requirements for having a good time on MDMA is to actually ingest real MDMA. Speed, acid, and various other drugs are commonly passed off as MDMA, so be sure that you buy from someone you trust.

Most users of MDMA report that after a certain number of sessions (the number of which varies from person to person), the desirable effects of the drug are no longer as potent. "It loses its magic" one person said. The exact mechanism of this effect dropoff is unknown, although it is speculated that the damage to serotonergic uptake neuron axons (see the rumors section) may have a permanent effect on the brain that renders the users less sensitive to MDMA. Better get the most out of your early trips - the later ones may never be as great.

Because of the entactogenic effects that MDMA generates, good judgement may go by the wayside while tripping. In general if you expect to have to make a decision regarding forming, changing or terminating a relationship, engaging in sex, taking other drugs, or other "serious" matters, it might help to have someone around who is sober to help make these decisions for you.

In conclusion, MDMA is a drug that should not be taken lightly. The effects it generates are very powerful, and care should be taken at all time when dealing with it. Read this whole FAQ, educate yourself about the pleasures and pitfalls of MDMA, and be sure you are ready before you take it.

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### III. Chemistry

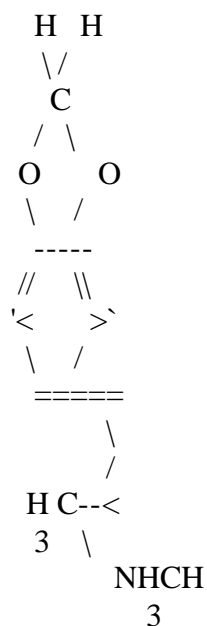
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#### Structural Information:

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MDMA is (3,4-Methylenedioxyamphetamine). The structure of the molecule (insofar as it can be rendered using ASCII) is this:

From: Chemical & Engineering News. September 9, 1985.  
"3,4-methylenedioxyamphetamine (MDMA)....



#### Action Mechanism:

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The action mechanism of the amphetamine-like effects is the same as for normal amphetamines - potentiating the central and peripheral nervous systems by causing an increase in the production of acetylcholine. Acetylcholine is a neurotransmitter responsible for propagating a signal down a nerve pathway from neuron to neuron. A sudden massive increase in the production of this chemical in the human body results in an increase in the "background noise" of the human nervous system.

The action mechanism of the mental effects is through the 5-hydroxytryptamine (serotonin) system in the brain. This is the same system that is acted upon by most psychedelic drugs. The exact effect of MDMA upon this system is unknown, but it is known that MDMA is taken up by the 5-HT uptake

neurons and that this affects the action of the 5-HT system in some way. This system is responsible for many things in the brain, including the regulation of sleep patterns, mood, energy, and perception. MDMA has been found to cause a massive release of 5-HT in the brain, and this may be responsible for the changes in mood. The "ceiling" effect and the "burnout" effect (discussed elsewhere in this document) suggest that MDMA may cause a release of all the stores of certain chemicals in the brain, and that the brain may need time after this massive release to replenish them.

## Synthesis:

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Here is a syntheses for MDMA. It was taken from *\_Psychedelic Chemistry\_* by Michael Valentine Smith. Be aware that this synthesis had two typos in the book it came from that I have fixed here, one of which will cause an \*explosion\* if followed. If you can't understand it, give up on trying it. Oil of sassafras (from which safrole, the primary precursor in this synthesis, is extracted) can be purchased at many health food or herbal-type stores, and can also be extracted from sassafras itself fairly simply. The book PIHKAL (see the section on related reading) has a synthesis for MDMA as well as every other compound described there.

### *Manufacture of "Ecstasy"* *from Chemical Abstracts 52, 11965 (1958)*

Safrole, an allyl benzene, occurs naturally in oil of sassafras, about 70%. Can be extracted with simple distillation. It is converted to isosafrole (a propenyl benzene) by adding equal weight of KOH flakes and absolute ethanol and heating on steam bath or refluxing for 24 hours; dried and evaporated in vacuum or added with two time its volume in water and extracted with ether or methylene chloride and dried, evaporated in vacuum. Hexane is used for recrystallization.

This formula is exemplified for MDA (3,4-Methylenedioxy-phenylisopropylamine); substituting N-methyl formamide results in MDMA or N-methyl MDA (Ecstasy).

To a cooled mixture of 34 g 30% H<sub>2</sub>O<sub>2</sub> and 150 g formic acid, add dropwise a solution of 32.4 g (0.2M) isosafrole in 120 ml acetone, (keep temperature below 30 degrees).

Let stand twelve hours and evacuate in vacuum. Add 60 ml methanol and 360 g 15% sulfuric acid to the residue and heat on a water bath three hours. Cool, extract with ether or benzene and evaporate in vacuum the extract to give 20 g 3,4,-methylenedioxybenzylmethyl ketone.

Add 23 g of above ketone to 65 g formamide and heat at 190 degrees for five hours. Cool, add 100 ml H<sub>2</sub>O, extract with benzene and evaporate in vacuum the extract. Add 8 ml methanol and 75 ml 15% HCL to residue, heat on water bath two hours and evaporate in vacuum (or basify with KOH and extract the oil with benzene and dry, evaporate in vacuum) to get 11.7 g MDA.

The above occurs as a yellowish brown oil; this is active orally, but somewhat inconvenient; to convert to powder (salt) form, reflux in Hydrochloric acid and evaporate.

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## IV. Miscellany

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**Rumor Control:**

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There is a lot of misinformation out there about MDMA. Here are some commonly heard rumors and what the facts are about each one of them.

### **Rumor #1: MDMA drains your spinal fluid, ruins your back, etc.**

Untrue. A spinal tap, which lots of MDMA users who had tests run on them had done to them DO drain the spinal fluid temporarily. The actual drug itself, however, does not. The amphetamine-like effects may cause soreness or cramping of various muscles, but this is no more serious than normal back strain.

**Rumor #2: MDMA causes brain damage, parkinson's disease, etc.**

Untrue, at least in the sense that most people view brain damage (gross noticeable symptoms). There is some controversy over whether MDMA causes some neuronal damage (see rumor #3), but MDMA definitely does NOT cause parkinson's disease or any noticeable form of gross brain damage. This rumor got started because of a mix-up by a journalist between MDMA and MPTP (1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine), which is a product of an error in the manufacture of a synthetic opiate and has \*no\* relation at all to MDMA.

**Rumor #3: MDMA causes bursting of the axons on 5-HT uptake neurons.**

The jury is still out on this one. The 5-HT (serotonin) uptake neurons are the receptor sites that MDMA bonds to in the brain, and experiments done on lab animals seem to suggest that MDMA may destroy 5-HT axons. However, no noticeable symptoms have been observed as a result of this in either rats or humans, and a common prescription weight-loss drug (fenfluramine) produces 3 times the amount of the same kind of damage and has never been linked to any form of brain dysfunction. If you're really paranoid, most of this "damage" may be prevented by taking some Prozac or Zoloft (see the section on contraindications) about 3 hours after taking the MDMA. There is a possibility that this may cause anxiety attacks, so be careful if you try this.

**Analogues and related compounds:**  
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MDMA has several chemical "cousins" which have different effects. Here are descriptions of some of the more common ones:

**MDA (3,4-methylenedioxyamphetamine):**

MDA was popular for a while during the 70s, when it was known as the 'Love Drug' (a nickname sometimes associated with MDMA as well). It is similar to MDMA in its effects, but is more like LSD in that it is much more mentally disorienting.

**MDE or MDEA (N-ethyl-methylenedioxyamphetamine):**

Commonly called "Eve" (if MDMA is "Adam", MDE is "Eve", get it?), MDE can be described as MDMA without the amphetamine-like effects.

**MMDA (3-methoxy-4,5-methylenedioxyamphetamine):**

MMDA is reported to cause interesting closed-eye hallucinations, but otherwise appears to be similar to MDMA.

**MBDB (N-methyl-1-(1,3-benzodioxol-5-yl)-2-butanamine):**

Differs structurally from MDMA only by the addition of an extra carbon to the MDMA chain. Effects are similar to MDA.

**GHB (Gammahydroxybutyrate):**

GHB is not chemically related to MDMA at all, but the similarity of some of its effects to those of MDMA and the similarity of the settings in which it is used to those of MDMA use give it a place here.

GHB is a hydroxyl alcohol, and was (and still is) used by bodybuilders in the same way as steroids are. Physically it is a waxy, hygroscopic solid, and usually comes in small bottles about the size of hotel shampoo bottles. It is usually ingested by dissolving a small amount in a glass of warm water and drinking. GHB came to the attention of the MDMA crowd when it was found that it produces many of the same sensory distortions that MDMA does. GHB + methamphetamine is a commonly seen mixture, and supposedly produces a high that is very similar to MDMA.

## **Related Reading:**

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Here are some other reading materials which can provide additional information on MDMA:

### ***PIHKAL: A chemical love story***

Alexander and Ann Shulgin

1008 Pages

Published by Transform Press (don't know the address)

The first part of this book contains autobiographical accounts of the shulgins' life history and experiments with psychoactive drugs. The second part describes the synthesis, dosage and effects of 179 different compounds in the phenethylamine family, including MDMA and several of its analogues.

### ***Ecstasy: the MDMA Story***

Bruce Eisner

228 Pages

Published by Ronin Publishing, inc. Box 1035 Berkeley, CA 94701

General overview of MDMA

### ***E for Ecstasy***

Nicholas Saunders

318 Pages

Published by Nicholas Saunders, 14 Neal's Yard, London WC2H 9DP England

Full overview of MDMA, also includes the latest version of Alexander Shulgin's MDMA bibliography. Highly extensive references with summaries. This book is recommended over the previous one because it is newer, larger and better in general. A little chaotic in organization, though.

### ***Through the Gateway of the Heart***

Sophia Adamson

197 Pages

Published by Four Trees publishing, San Francisco

A collection of stories about drug experiences, primarily with MDMA but also with Ketamine, 2C-B and other psychedelics, typically taken with MDMA.

### ***The Healing Journey***

Claudio Naranjo

Published by Random House

Accounts of Groundbreaking therapeutic use of MDA, MMDA, Harmaline and Ibogaine.

*Most of these books can be ordered from various places listed in the addresses FAQ, available from the ALT.DRUGS FTP archive (FTP.HMC.EDU in /pub/drugs).*

*You can also contact MAPS (the Multidisciplinary Association for Psychedelic Studies) at:*

*1801 Tippah Ave. Charlotte NC 28205 or through e-mail at: RICKMAPS@aol.com*

