

Combining ecstasy with other drugs, illicit or prescription, may cause a toxic interaction. There are several prescription medications known to interact with ecstasy. These include a certain kind of antidepressant called monoamine oxidase inhibitors (MAOIs), and ritonavir, a protease inhibitor used to treat HIV.

Driving or operating machinery while under the influence of ecstasy, or any drug, increases the risk of physical injury to the user, and increases the risk of injury to others.

### Is ecstasy addictive?

Tolerance to ecstasy builds up very quickly. This means the more often you take ecstasy, the less effect the drug has. Taking more of the drug may not achieve the desired results, as frequent ecstasy use depletes serotonin and other brain chemicals that give the ecstasy "high."

While there is little evidence to indicate that MDMA can produce physical dependence or withdrawal symptoms, it's not uncommon for the drug to take on an exaggerated importance in people's lives.

### What are the long-term effects of taking ecstasy?

Animal research has established that ecstasy use can damage the brain cells that release serotonin. Research on humans is limited, but there is some evidence to support that ecstasy can damage the cells and chemistry of the human brain, affecting some functions of the brain, including learning and memory. Research suggests that the risk of damage caused by ecstasy use is linked to the amount taken and the frequency of use.

At this time it is not known how long the damage caused by ecstasy might last, or if it may be permanent. More research is needed to confirm the long-term effects of ecstasy on the human brain.

### One in a series...

Alcohol	Hallucinogens
Alcohol, Other Drugs and Driving	Heroin
Amphetamines	Inhalants
Anabolic Steroids	Ketamine
Benzodiazepines	LSD
Caffeine	Methadone
Cannabis	Methamphetamine
Cocaine	Opioids
Ecstasy	Rohypnol
GHB	Tobacco

For more information on addiction and mental health issues, or a copy of this brochure, please contact CAMH's R. Samuel McLaughlin Addiction and Mental Health Information Centre:  
ONTARIO TOLL-FREE: 1 800 463-6273  
TORONTO: 416 595-6111

To order multiple copies of this brochure, or other CAMH resource materials, please contact:  
Marketing and Sales Services  
TEL.: 1 800 661-1111 or 416 595-6059 in Toronto  
E-MAIL: marketing@camh.net

To make a donation, please contact:  
Centre for Addiction and Mental Health Foundation  
TEL.: 416 979-6909  
E-MAIL: foundation@camh.net

If you have questions, compliments or concerns about services at CAMH, please call our Client Relations Co-ordinator at:  
TEL.: 416 535-8501 ext. 2028

Visit our Web site at: [www.camh.net](http://www.camh.net)

Copyright © 2003 Centre for Addiction and Mental Health



A Pan American Health Organization / World Health Organization  
Collaborating Centre  
Affiliated with the University of Toronto

Disponible en français

## Do You Know...

**Street Name:** E, XTC, Adam, the love drug

### What is it?

The chemical name for ecstasy is 3,4-methylenedioxymethamphetamine, or MDMA. The chemical structure and the effects of MDMA are similar to amphetamine (a stimulant) and to mescaline (a hallucinogen).

What's sold as ecstasy often contains drugs other than MDMA, which may or may not be similar in effect to MDMA. Some of the other drugs include caffeine, ephedrine, amphetamine, dextromethorphan, ketamine or LSD. Ecstasy sometimes contains highly toxic drugs, such as PMA (paramethoxyamphetamine), which can be lethal even in low doses.



A Pan American Health Organization / World Health Organization  
Collaborating Centre  
Affiliated with the University of Toronto

2502 /02-04 P265

MDMA affects the chemistry of the brain, in particular by releasing a high level of serotonin. Serotonin is a chemical in the brain that plays an important role in the regulation of mood, energy level and appetite, among other things.

MDMA was patented in 1913, and has been used experimentally, most notably as a supplement to psychotherapy in the 1970s. It was made illegal to possess, traffic, import or produce in Canada in 1976 and in the United States in 1985.

### **Where does ecstasy come from?**

Ecstasy is made in illicit labs with chemicals and processes that vary from lab to lab. What's sold as ecstasy often contains unknown drugs or other fillers.

### **What does ecstasy look like?**

Ecstasy is usually sold as a tablet or capsule that is swallowed. It may also be sold in powder form, or the tablets may be crushed and then snorted. Although rare, there are also some reports that the drug is injected.

Ecstasy tablets come in different shapes, sizes and colours, and are often stamped with a logo, such as a butterfly or clover, giving them a candy-like look. This "branding" of ecstasy tablets should not be mistaken for an indication of quality, as manufacturers may use the same logo, and low-quality copycats are common. Tablets that are sold as ecstasy may not contain MDMA.

"Herbal ecstasy," often promoted as containing only "natural" ingredients, usually contains herbal ephedrine, which has stimulant properties. The abuse of products containing ephedrine has been associated with strokes, heart attacks and deaths.

### **Who uses ecstasy?**

The increased use of ecstasy as a recreational drug began in the 1980s in the U.S. The group most commonly associated with ecstasy use is young people at "raves" or all-night dance parties. More recently, ecstasy has attracted a wider range of users, including urban professionals, and is used in a variety of settings, including mainstream nightclubs.

### **How does ecstasy make you feel?**

How ecstasy affects you depends on several things:

- . your age and your body weight
- . how much you take and how often you take it
- . how long you've been taking it
- . the method you use to take the drug
- . the environment you're in
- . whether or not you have certain pre-existing medical or psychiatric conditions
- . if you've taken any alcohol or other drugs (illicit, prescription, over-the-counter or herbal).

In low to moderate doses, ecstasy can produce feelings of pleasure and well-being, increased sociability and closeness with others. Like all stimulant drugs, ecstasy can make users feel full of energy and confidence.

Even at low doses, ecstasy can also have strong negative effects. Higher doses are unlikely to enhance the desirable effects, and may intensify the negative effects. These effects include grinding of teeth and jaw pain, sweating, increased blood pressure and heart rate, anxiety or panic attacks, blurred vision, nausea, vomiting and convulsions.

After the initial effects of the drug have worn off, users may also experience after-effects such as confusion,

irritability, anxiety, paranoia, depression, memory impairment or sleep problems.

### **How long does the feeling last?**

The effects of ecstasy usually begin within an hour, and may last four to six hours. The duration of the after-effects cannot be predicted as precisely, though they may last for days or weeks.

### **Is ecstasy dangerous?**

It can be. Although some people regard ecstasy as a relatively safe drug, a growing number of deaths have been associated with it. As with many illicit drugs, these risks increase with the amount taken and frequency of use.

A major factor in many ecstasy-related deaths is the dehydration and overheating that can result when ecstasy is taken in conjunction with all-night dancing. Ecstasy increases body temperature, blood pressure and heart rate, which can lead to kidney or heart failure, strokes and seizures. Ecstasy may cause jaundice and liver damage.

People with high blood pressure, heart or liver problems, diabetes, epilepsy or any mental disorder are the most vulnerable to the potential dangers of ecstasy. Part of the danger is that people may not be aware that they have these conditions, and the effects of ecstasy can trigger symptoms.

As with all illegal street drugs, the purity and strength of ecstasy can never be accurately gauged. When you take ecstasy, you don't know what you're taking, or how it will affect you.