

# “PARTY DRUGS”/MDMA/ECSTASY

WHAT YOU NEED TO KNOW



**Australian Government**  
**Department of Health**

# WHAT IS MDMA/ECSTASY?

Ecstasy is the common name for 3,4-methylenedioxymethamphetamine (MDMA), a member of the phenethylamine family of drugs. Other phenethylamines include MDA, MDEA, 2-CB, PMA and PMMA.<sup>1</sup> Although MDMA is commonly referred to as ecstasy, not all drugs sold as ecstasy actually contain MDMA. "Party drugs" is a term used to describe a range of substances sold in tablet or capsule form.

MDMA was first used as a street drug in the 1980s<sup>2</sup> and is usually sold in tablet form (known as "pills"), with an increasing trend towards the use of MDMA capsules (known as "caps").<sup>3,4</sup> MDMA in powder or crystal form is also used. When sold in pill form, a characteristic impression or logo is typically stamped on the tablet. However, two pills with the same logo may have different effects – they can come from different sources and have different ingredients.

Drugs sold as ecstasy or MDMA may contain a wide range of other substances,<sup>5</sup> some of which can be highly toxic even at low doses. Analysis of ecstasy tablets, capsules, powder and crystals by the Australian Crime Commission shows that some contain a mix of MDMA and other drugs such as methamphetamine ("Ice") or synthetic drugs with MDMA-like effects, while others contain a mix of substances with no MDMA.<sup>4</sup> See table on page 2 for more information about substances that may be found in pills or caps sold as ecstasy.

MDMA and ecstasy are also known as E, pills, caps, M&M, XTC, X, Adam, go, Scooby snacks, beans, disco biscuits, and eccy.

# HOW MANY PEOPLE TAKE MDMA/ECSTASY?

In Australia, the number of people taking drugs sold as ecstasy or MDMA has declined in recent years. According to the 2016 National Drug Strategy Household Survey, two in every one hundred (2.2%) Australians (aged 14 or over) reported MDMA/ecstasy use in the past year. This was a decrease since 2007, where the reported figure was 3.5%.<sup>10</sup>

**Other substances that may be found in drugs sold as ecstasy/MDMA include:**

Substance	Effects	Possible negative effects include
Methamphetamine ("Ice") <sup>4,6</sup>	A stimulant; it speeds up activity in the central nervous system, increasing heart and breathing rates. Users feel more alert and energetic	Dehydration, anxiety, panic attacks. Dangerous for people with pre-existing cardiovascular (heart) problems. For more information, see 'Methamphetamine' factsheet at <a href="http://www.positivechoices.org.au/drugs-a-z">www.positivechoices.org.au/drugs-a-z</a>
Other chemicals that are closely related to MDMA, such as MDA <sup>7</sup> or PMA	Similar types of effects to ecstasy (MDMA)	Risks are largely the same as for MDMA, although some of these substances are toxic at much lower doses (e.g. PMA)
DXM (dextromethorphan) <sup>7,8</sup>	A cough suppressant which has a dissociative hallucinogenic effect at higher doses	Drowsiness, dizziness, nausea, vomiting, stomach/digestive problems. Can be dangerous for people with asthma <sup>9</sup>
Caffeine <sup>6</sup>	A stimulant found in coffee, tea, colas and energy drinks	Dehydration, anxiety, panic attacks. May be risky at high doses for some people with pre-existing cardiovascular (heart) problems
Paracetamol <sup>6</sup>	Painkiller with no psychoactive effect	Usually harmless. In rare cases can cause serious adverse reactions <sup>9</sup>
Ketamine <sup>6</sup>	A dissociative anaesthetic with a range of different effects	Anxiety, paranoia, panic attacks, numbness and trouble moving/speaking, confusion, nausea and vomiting. For more information, see 'Ketamine' factsheet at <a href="http://www.positivechoices.org.au/drugs-a-z">www.positivechoices.org.au/drugs-a-z</a>
Pseudoephedrine <sup>5</sup>	A stimulant medication used as a cold and flu remedy	Dehydration, anxiety, panic attacks
Prescription stimulants such as dexamphetamine and methylphenidate (Ritalin)	Prescription medication used in the treatment of Attention Deficit/Hyperactivity Disorder (ADHD) and narcolepsy	Dehydration, anxiety, panic attacks
Synthetic cathinones, such as mephedrone, methylone and MDPV <sup>6</sup>	Stimulants with a variety of effects	Dehydration, anxiety, panic attacks. These drugs haven't been around long enough for us to know what the immediate risks are or what might happen later on in life to people who use them. For example, there is a lot we don't know about the risk of overdose or major health problems they might cause (or make worse) and whether they are more dangerous than more well-known drugs. For more information, see 'Emerging Drugs' factsheet at <a href="http://www.positivechoices.org.au/drugs-a-z">www.positivechoices.org.au/drugs-a-z</a>
Piperazines such as BZP or TFMPP <sup>6,8</sup>	Stimulants with a variety of effects	
Other new psychoactive drugs developed to have effects similar to other stimulants or MDMA	May have a variety of stimulant or entactogenic (ecstasy-like) effects	

# WHAT ARE THE EFFECTS?

Ecstasy, if it contains MDMA, usually takes approximately 45 minutes to take effect after swallowing. However, this can vary from person to person. Effects usually last about 3–4 hours.<sup>11, 12</sup> The height of this experience is sometimes known as 'peaking'.

The stimulant effects of ecstasy speed up activity in the central nervous system (the brain and spinal cord). Other effects of the drug can include increased feelings of openness, empathy and well-being. The short-term effects of ecstasy can include:<sup>13-15</sup>

- **Dilated (enlarged) pupils**
- **Increased heart rate and blood pressure/strong pulse**
- **Increased body temperature**
- **Increased arousal**
- **Feeling alert and energetic**
- **A 'rush' when the drug begins to take effect ('coming up')**
- **Dry mouth**
- **Euphoria or a 'high'**
- **A feeling of calmness**
- **Feeling happy/loving, open, confident and talkative**
- **Sweating**
- **Tightening of muscles, especially the jaw, teeth grinding**
- **Visual distortions (things looking weird or different)**
- **Dizziness**
- **Loss of appetite**
- **Decreased urine output**
- **Numbness**
- **Muscle aches**
- **Nausea and vomiting**
- **Confusion, anxiety, panic or fear**

The effects of drugs sold as ecstasy are difficult to predict as the combination of substances used can vary greatly. Depending on the ingredients, the user may experience effects similar to those described above for ecstasy, for example a pill or cap containing another stimulant such as methamphetamine or caffeine can also increase feelings of energy and alertness. Other drugs sold as ecstasy may lead to a more severe or harmful reaction, depending on the combination of their ingredients.

# WHAT ARE THE RISKS?

There are a number of risks associated with MDMA/ecstasy use. Risks may include:<sup>11, 14, 16-18</sup>

- **Involuntary jaw clenching and teeth grinding. This can lead to dental issues if used heavily/regularly**
- **Unpleasant after-effects (the 'comedown' phase) – see over page**
- **Increased heart rate and blood pressure. This is extremely dangerous for people with pre-existing problems, e.g. high blood pressure or cardiovascular (heart) disease. This risk is even greater when used with other drugs that have stimulant effects, e.g. ecstasy or methamphetamine**
- **Nausea and vomiting**
- **Dehydration and overheating. If taken in a hot or humid environment such as a club or dance party, especially if the user is moving around a lot. This risk that can lead to serious consequences such as kidney failure for users if they don't drink enough water; drinking too much water can also be dangerous**
- **Anxiety and panic attacks**
- **Insomnia**
- **Tremors/shakes, convulsions**
- **Immunosuppression (the body's ability to fight infection is lowered)**
- **Possible dependence (addiction) for some people (see later section)**
- **Serotonin syndrome – this can be life-threatening (see later section)**
- **Psychosis (a serious mental illness that causes people to misinterpret or confuse reality)**
- **Stroke**

If the drugs being taken contain other substances (e.g. PMA or methamphetamine), the user may also experience the negative effects of those drugs. Whether a person is a first-time, occasional or regular user, one of the major risks is that the effects of illegal drugs are unpredictable, and users can never be sure what they're taking.

Longer-term effects associated with MDMA/ecstasy are still debated. It is possible that some people may be more prone to developing long-term problems than others.<sup>19</sup> Some studies have linked ecstasy with:<sup>14, 17, 20</sup>

- **Damage to serotonin levels in the brain (low serotonin levels are associated with depression). Whether this puts ecstasy users at a greater risk of long-term depression is the subject of debate by researchers**
- **Impairments to memory and attention**
- **Liver problems**

People who use MDMA/ecstasy can develop a tolerance to the drug. This means that users may require a higher dose of the drug to get the same effect.<sup>15</sup> This increases the risks of experiencing negative consequences.<sup>21</sup>

## IS MDMA/ECSTASY ADDICTIVE?

Some people report that they have problems with their use and that they find it hard to stop. It seems that ecstasy may be addictive for a small number of people who use it regularly.<sup>16</sup>

## WHAT IS SEROTONIN SYNDROME?

Serotonin syndrome can be a life-threatening condition. It occurs when the brain is overloaded with a neurotransmitter (brain chemical) called serotonin (which is responsible for making us feel happy). It usually starts within 24 hours of taking the drug.<sup>22</sup> It can be hard to recognise it developing as many of the early signs are the same as the expected effects of taking ecstasy.<sup>22</sup> These include sweating, excitement, tremors and a rapid heartbeat.

More serious symptoms require immediate medical help and include:<sup>22, 23</sup>

- **Muscle twitches, spasms and tremors**
- **Shaking, shivering**
- **Fever or overheating**
- **Agitation**
- **Confusion**
- **Distress**
- **Rigid muscles**
- **Seizures**
- **Coma**

Serotonin syndrome is more common when other drugs that increase serotonin levels are also used, including pharmaceutical stimulants (e.g. dexamphetamine and Ritalin), and some types of antidepressants (called MAOIs). Methamphetamine, cocaine, LSD and some other medications and herbal supplements also affect serotonin levels and have been linked to serotonin syndrome.<sup>22</sup>

## WHAT IS THE 'COMEDOWN' PHASE?

Users often experience a 'comedown' phase that occurs after the drug starts to wear off. These feelings can last for several days and may include:<sup>15, 24</sup>

- **Anxiety or paranoia (feeling extremely suspicious and frightened)**
- **Feeling down or depressed**
- **Lethargy, feeling physically exhausted, drained or 'out of sorts'**
- **Feeling 'scattered' or unable to concentrate**
- **Loss of appetite**
- **Irritability**
- **Problems sleeping - sometimes this can last longer than the rest of the comedown symptoms**



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# FOR MORE INFORMATION

We have listed some of the national telephone helplines and websites below.

For free and confidential advice about alcohol and other drugs, call the

## **National Alcohol & Other Drug Hotline**

**1800 250 015**

It will automatically direct you to the Alcohol and Drug Information Service in your state or territory. These local alcohol and other drug telephone services offer support, information, counselling and referral to services.

## **Australian Drug Foundation**

Provides information about drugs and links to services in each state and territory

**[www.adf.org.au](http://www.adf.org.au)**

## **DrugInfo Line**

Provides information about drugs and alcohol. Open 9am–5pm, Monday to Friday

**1300 85 85 84** or **03 8672 5983**. Or visit **[www.druginfo.adf.org.au](http://www.druginfo.adf.org.au)**

## **Just Ask Us**

Provides information about drugs, alcohol, health and well-being

**[www.justaskus.org.au](http://www.justaskus.org.au)**

## **Kids Helpline**

Free, private and confidential telephone and online counselling service for young people aged 5–25 years Open 24 Hours **1800 55 1800**

## **Lifeline**

24 hour crisis line **131114**

Also available is one-on-one chatlines for crisis support, visit

**[www.lifeline.org.au/Find-Help/Online-Services/crisis-chat](http://www.lifeline.org.au/Find-Help/Online-Services/crisis-chat)**

## **Counselling Online**

Free, confidential counselling service for people using drugs, their families and friends

**[www.counsellingonline.org.au](http://www.counsellingonline.org.au)**

## **National Drugs Campaign**

Australian Government website provides information about illicit drugs and campaign resources.

**[www.australia.gov.au/drugs](http://www.australia.gov.au/drugs)**

## **Family Drug Support**

For families and friends of people who use drugs or alcohol

**1300 368 186**

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