

'Sorted'

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Each year in Accident and Emergency an increasing number of young people present with acute problems related to social drugs. These problems range from mild symptoms to life-threatening conditions, many of which can be extremely difficult and time consuming for staff to manage. It has become apparent that as with sex the experimental age for taking drugs is getting younger as youths are now far more 'streetwise' than their predecessors. This is one of the main reasons for this paper being written; it is imperative that staff are equipped with the appropriate knowledge to deal with the challenge and are educated about the problems associated with current drug trends. This potentially improves the quality of care and, in turn, good communication improves relationships. Ecstasy is once again becoming increasingly popular within mainstream clubs, as recently highlighted in the media, and with it reappear its problems. This article discusses the historical aspects of Ecstasy and aims to educate staff about its use and effects and provides health promotion advice for those who are involved in the care of people who take Ecstasy.

In the wake of the tragic death of Leah Betts, the teenager who took one uncontaminated Ecstasy tablet on her eighteenth birthday and died as a consequence, there has been much media interest expressing the dangers of this popular drug. Despite this and the death of 52 others since 1985 as a direct consequence of the drug's use, Ecstasy, or to give its chemical name 3,4-Methylenedioxymethamphetamine (MDMA), remains the third most popular drug in the UK today, preceded only by amphetamine and cannabis. Each weekend 'between 20 000 and 30 000 people will use MDMA, culminating in a total of 0.75 million people having tried the drug at least once in their lifetime' (Tober 1994).

Ecstasy, otherwise known as 'E', 'XTC', 'Adam', 'Dennis the Menace', 'M25s', 'New Yorkers', 'Love Doves', 'Disco Burgers, (the list goes on), is a Class A drug under the provisions of Misuse of Drugs Act 1971. Those found in possession of the drug face prosecution at Crown Court level and can face a maximum of 7 years in prison with an unlimited fine. For those found in possession with the intent to supply, it carries a maximum sentence of life imprisonment and an unlimited fine. Under the Misuse of Medicines Act it is a schedule 1 drug which means it must not be used medicinally. However, there is currently a proposal to exploit the psychotherapeutic effects of the drug 'in a trial using MDMA as an aid to self-expression and emotional release in the treatment of end stage pancreatic tumours' (Pekkanen 1992 cited in Jones 1993).

MDMA is classed as an hallucinogenic amphetamine which leaves the user feeling euphoric, benevolent, with enhanced perception; they feel amorous towards other users, and are able to dance all night. It comes with its own dress code and its own language. It is marketed with a professional appearance; it 'does not reach the market in scruffy wraps of anonymous powder. It is presented in dose standardized tablets or in capsule form so slickly manufactured that some achieve brand loyalty among aficionados' (Jones 1993). It has been labelled as the drug with no side-effects, but staff working within critical care areas know this to be far from the truth. Reflecting on my own experience in Accident and Emergency (A & E) I have personally cared for two severe cases of Ecstasy poisoning, and numerous mild to moderate reactions. Of the two severe reactions one resulted in a fatality and the other fortunately survived. To me these cases were extremely distressing and frustrating as I had little practical experience in dealing with such severe reactions to the drug. This left me feeling helpless and extremely uncomfortable with the situation. It is for this reason that I decided to take up the challenge of trying to understand more about Ecstasy; what occurs when a person reacts to Ecstasy and how this can be prevented. The aims of this paper are to discover more about Ecstasy in general, briefly explain the severe toxic effects of the drug, and finally the most challenging of all, propose our role in A & E in promoting the safer use of MDMA.

Contrary to popular belief Ecstasy is not a designer drug, neither is it a modern drug. The parent drug of MDMA, Methylenedioxyamphetamine (MDA) was first discovered in 1910 by two German chemists and was briefly used in a trial unsuccessfully as an appetite suppressor. The drug remained in the background for many years until it surfaced again in 1939, again

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unsuccessfully when used to treat Parkinson's disease (it undesirably increased muscular rigidity). In 1968 Ecstasy appeared on the west coast of the US in the middle of the Hippie era as the 'love drug', where it was used in the same context as cannabis – in a quiet environment with friends used to explore the inner psyche and provide an aura of peace and love. When used in the way of the Americans 'very few cases of severe or fatal reactions have been recorded in the US despite its extremely widespread use' (Dowling 1990 cited in Henry 1992).

However, in the UK Ecstasy use is heavily associated with parties and raves, where the drug is said to enhance feelings of wellbeing and increases the enjoyment of dancing and music. In 1970 the drug was banned and resurfaced the same year as MDMA, the legal alternative; it was used in a trial as a marriage guidance drug, again unsuccessfully, and was banned in 1971. The first seizures of MDMA in the UK were not until 1985 and since then seizures of the drug have increased seven fold.

A & E departments deal with drug-related accidents, primarily the results of alcohol misuse. More recently the psychological problems resulting from MDMA use, amphetamines and hallucinogenic drugs have constituted regular weekend presentations in A & E departments.

Wright 1992 (cited in Tober 1994)

The unpredictable nature allows anyone who takes it to become a potential victim. It comes in tablet or capsule form, costs between £7–£25, and can be taken orally (slow release) or rectally (quick release). The effects of the drug commence within 20 minutes of administration and can last up to 8 hours. Each tablet is supposed to contain between 75–100 mg of MDMA, but the author of an article published in *Select* magazine purchased seven tablets sold as Ecstasy and had them analysed. The results of the analysis showed that only two tablets contained any Ecstasy at all, the rest contained anything from LSD and amphetamine to brick dust and fish tank oxygenating tablets. More worryingly, some were contaminated with heroin.

The drug MDMA has many undesirable effects and as with LSD, individuals can either have a good trip or a bad trip, with undesired effects coming in three forms – mild, moderate or severe. The mild effects of Ecstasy, according to the Leeds Poisons Information centre (1995), are:

- Restlessness
- Dehydration
- Talkativeness
- Irritability
- Tremor
- Dilated pupils

- Dry mucous membranes
- Pallor
- Nausea
- Hyperreflexia.

These can briskly develop into moderate symptoms which include.

- Hyperactivity
- Confusion
- Hypertension
- Premature ventricular contractions
- Chest discomfort
- Vomiting
- Slight pyrexia
- Dehydration
- Collapse
- Repetitive behaviour
- Hallucinations
- Panic attacks.

According to Saunders (1993) 'MDMA works by inhibiting the reabsorption of the neurotransmitter serotonin (5HT) after it is released into the interganglionic synapse'. Serotonin is the chemical that is released when we are in love and it is also involved with slight mood changes. It is the release of this chemical that increases perception, amour and bonding, and breaks down the barriers of social inhibition. This in itself raises the issues of safe sex, ISDD (1994) 'after all 7% of all HIV and AIDS cases in Leeds are in the drug-taking population' as shown in the Public Health figures. There is a finite amount of serotonin within the brain, and new reserves are produced slowly. The ganglia soon tire of their reserves of serotonin locked within the synaptic space; this is due to the MDMA preventing reabsorption. Serotonin is an extremely important chemical and, when MDMA has been taken, it can have a great effect on blood pressure by initially causing constriction of the large vessels, causing the blood pressure to rise. The blood pressure then falls as a result of the inhibited release of noradrenaline from the sympathetic nerve terminals, causing generalized arterial vasodilatation. It also aggregates platelets affecting clotting, and has been suggested to also have an effect on appetite, moods, hallucinations and pain. One possible explanation for the characteristic hyperpyrexia was published in an article by Henry (1992) which stated that 'at the current popular rave parties the dancing is hard and fast so that the pharmacological effects of the drug may be compounded by physical exertion. Animal studies show that the drug may cause excessive heat production due to serotogenic mechanisms, which is greater at higher ambient temperatures'. Therefore, the severe toxic effects of MDMA are:

- Hyperpyrexia (40°C)
- Tachycardia
- Hypertension
- Hypotension
- Convulsions
- Coma
- Haemodynamically significant cardiac arrhythmias
- Disseminated Intravascular Coagulation
- Rhabdomyolysis
- Renal failure
- Possible death.

It remains unclear as to why some people react so severely to one tablet, when some can take up to six in one night and are unaffected. There is even one case report by Roberts and Wright (1993) from a Brighton Hospital in which a 20-year-old man took an overdose of 18 MDMA tablets with alcohol and suffered nothing but a hangover the next day.

In a recent study of MDMA use among Leeds University students by Sherlock (1993 cited in Tober 1994), it was 'revealed that of a sample of 186 students, over half had tried it (68% of the male sample and 42% of the female sample) and 10% reported using it at least once a fortnight'. This study illustrates the enormous size of the problem being faced. Therefore, it becomes apparent that not only do we need to know how to treat the effects of Ecstasy poisoning, but most importantly need to educate its users about the dangers and, if possible, how to avoid them.

The use of MDMA is so widespread that it would be impossible to try to stop its use, and the problem is not going to go away. Therefore, health care professionals need to challenge the problem head-on by firstly educating staff, which in turn enables them to advise the users. Here lies the first problem; in order to educate staff attitudes need to change towards these patients from a narrow-minded approach to an open-minded one. Perhaps one way to do this is by understanding why people take Ecstasy in the first place, but this could prove to be extremely difficult as drug-taking patients are not the most popular visitors to the A & E department. They become an emotional challenge for those staff who have seen the horrific way in which patients die from taking this drug and what devastating effects it can have on families and friends of the victims, as illustrated with the Leah Betts case. These patients are often accompanied by friends who are also under the influence of the drug and it can be difficult to manage their behaviour in a stressful situation. Dealing with these patients and their friends can also be extremely time consuming, something which is always prominent in an A & E nurse's mind. Many staff also forget or fail to recognize what appeal drugs have to

young people and the power of peer pressure. Long gone are the days of smoking behind the bike shed at school, facts must be faced that drugs are a major part of youth culture and the experimental age, as with sex, is getting younger (Department of Health, 1992). In order to educate staff, regular teachings on the subject of Ecstasy by a well-informed member of staff could be used in conjunction with updated information presented in a communication folder, which staff can read when they have a little free time. This may enable staff to understand more about the drug and its effects. Only when the staff are knowledgeable about the drug can they begin to educate the users.

Perhaps one way of alerting the users to the dangers is by adopting the same pragmatic approach as the Dutch authorities. Despite Ecstasy being illegal in Holland they accept the fact that young people will still take it, and would rather they do it in the safest way possible. It is for this reason that they set up Safe Houses, places where young ravers can go and have a good time. It is just like a normal rave but has drug testing facilities, a resident medical team, environmental temperature control, a 'chill out' room and plenty of free water. The Safe Houses advertise their services on posters and flyers which state 'For your own safety, let us test your pills. Anonymity guaranteed. You get your pill back. Know what you take, taking nothing is also good', Day (1995). The drugs are tested by Health Care professionals: the analysis takes only two minutes; the testing kits have a 95% accuracy rate; and the cost is only 2.5 guilders. The testing of pills at raves not only enables the user to know whether they are taking a contaminated tablet or not, it also allows the Dutch Authorities to monitor just what the dealers are contaminating drugs with, and the drug's popularity.

Each Safe House has a resident medical team who have experience in dealing with Ecstasy complications and know the correct treatment to administer should any complications arise. They can also transport the patient to hospital promptly should this be necessary. In accordance with Dutch authority guidelines, each Safe House must have regular temperature control and a 'chill out' room, which is usually air conditioned, where ravers can go to cool down. Unfortunately, there seems to be little research evaluating the effectiveness of the Safe Houses.

In the UK there is a long way to go before open-minded attitudes towards the Safe Houses of Holland are adopted, and the problems in many places seem to be worsening. Many problems have arisen from the fact that large raves, which were once held in empty warehouses and open fields, now have been driven

by their popularity to the mainstream clubs. This brings with it the problem of overcrowding, resulting in hot environments, and this in conjunction with the absence of air conditioning puts anyone who has taken Ecstasy at risk. The club owners are also dissatisfied with the lack of interest in alcoholic drinks at the bar, despite the fact that they always charge a hefty entrance fee to the raves. Some club owners have been found to charge over £1 for a glass of water and 'some clubs have been found guilty of turning off water supplies in the toilets to force ravers back to the bars' (Abbot 1992). It is under these conditions that deaths occur due to the body not able to fight the overheating and dehydrating effects of the drug.

Fortunately, various clubs have realised the problems, and, prompted by adverse reactions to the drug, have started to improve the conditions at raves. In Leeds at the 'Ark' (where an Ecstasy fatality occurred) there have been many improvements; these include the presence of an experienced medical team who act similarly to those of Holland, providing advice, fluids and treatment if necessary. The effectiveness of these improved facilities must be apparent, but as yet it has to be officially evaluated.

The role of A & E department staff is to promote health and to educate, in the hope that prevention is better than cure, but as already established, no matter how much bad press Ecstasy gets, people will still take it. An article published in a raver's magazine *Mis Mag* explains the Ecstasy-related death of Leah Betts. This article alerts users to the dangers of the drug and shows graphic pictures of her on a ventilator and the pictures of her funeral, but still there are some comments from ravers regarding her death which suggest that her death has had very little impact on ravers in general. One way in which the A & E department could help people who take Ecstasy is to produce an information leaflet which advises takers as to how they can reduce the risks themselves. The advice could include: wear loose thin clothing; drink plenty of fluids (especially isotonic drinks as they aid urea and electrolyte balance); stop dancing when they are tired; rest between dancing; and seek medical attention if they feel unwell, reassuring them that the police will not be informed because they have taken drugs. Perhaps adopting this more open-minded approach may bring the issue out into the open, which in turn may instil more confidence in relationships, thus improving communications between ravers and Health Care professionals.

On a more positive side to the Leah Betts case, it did cause many people to stop and think. It was the brave way in which her parents took hold of the opportunity to highlight the dangers of this drug by publicising the case, starting a poster campaign with the slogan 'Sorted' (a word commonly associated with rave culture) and a picture of Leah. They have also recorded a video which shows Leah in Intensive Care on a ventilator, and footage of her funeral. This video has been given to most schools in the country and is to be shown to an audience of 11- to 15-year-olds, an extremely influential period in life, in the hope that it will make youngsters think twice about the dangers before trying the drug. We can only hope that the message does get through.

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