**Effects of Drug Use: The Dangers of Polydrug Use in Relation to MDMA and Alcohol**

Methamphetamines, commonly known as MDMA, ‘Molly’, ‘Ecstasy’ or ‘E’, have been a popular drug since the 1950s. Although originally marketed to reduce fatigue, as understanding of the dangers of using methamphetamines grew, so too did widespread recreational use. The 1940s saw pilots and soldiers using the drug to stay awake and alert during flights and time out on the field. In the 1950s they were marketed to students, nicknamed ‘peppies’, to increase concentration and enable them to study harder. Methamphetamines were also trialled around this time in an effort to ‘cure’ heroin addiction. Fast­forward to the 1970s and 80s and methamphetamines were sometimes given to psychiatric patients, as it was believed the drug enhanced communication and enabled the user to obtain insights into the root cause of their problems. In 1985 a ban on the use of MDMA was introduced, and the culture moved underground. Although once regarded as a rave party drug, the recreational use of MDMA is now widespread. The *Global Drug Survey* conducted in 2015 examined the drug habits of almost 1,000 Irish people and found that 38.5% of the sample had used MDMA in the past year, which works out at approximately 1 in 3 individuals having tried or used MDMA. The average consumption rate per night was two pills, costing an average of €8 each. The survey did not account for regularity of MDMA consumption, or whether the individuals surveyed tried MDMA again.

MDMA ‘positively’ affects brain chemistry in three ways: by increasing dopamine, which causes a surge in energy and positive, happy feelings; by increasing serotonin levels, which are responsible for sexual arousal (the ‘loved up’ feeling that individuals often describe when discussing MDMA) and increased feelings of empathy; and by increasing norepinephrine (adrenaline) levels, which cause an increase in heart rate and blood pressure. Side effects can include nausea, sweating, muscle cramps, teeth clenching or involuntary ‘chewing’ motions, chills and a possibility of blurred vision. In a similar way a person may experience an alcohol­related hangover, MDMA­hangovers carry a host of possible symptoms. A person may experience irritability, aggressive behaviour, sleep problems, mental health issues such as anxiety or depression, concentration issues and decreased appetite for up to two weeks after taking MDMA. MDMA has been linked with long­term health risks including permanent brain damage from altering brain chemistry, kidney failure, cardiovascular collapse, convulsions, and, most frighteningly, death. The risk of death is highest when MDMA is taken in warm settings, such as at a concert or in a club. This can lead to a sharp increase in internal body temperature, leading to a condition known as hyperthermia which can result in liver, kidney or heart failure.

Given the nature of MDMA culture, it is important to realise that often MDMA is taken in conjunction with another, more popular drug: alcohol. A quick Google search shows that the concept of mixing MDMA and alcohol is a common discussion topic on drug forums. Seasoned MDMA users warn others that consuming MDMA and alcohol together puts the effects on the heart at a cause for primary concern. Tips such as ‘drink one glass of water for every beer that has been consumed’, ‘make sure the user is aware that they will become dehydrated if using both’ show that the dangers are discussed among users, and indicate that users are somewhat

informed on the consequences of consuming MDMA. Individuals are aware of a possibility of ‘hyponatremia’, a phenomenon whereby a person who has consumed MDMA feels dehydrated and drinks so much water that they can die from water intoxication. However, despite a present working knowledge of the dangers of consuming both drugs together, why do people mix drugs?

Polydrug use is a well known phenomenon. The simplest of explanations of the act are mixing alcohol and a caffeinated beverage. It can also apply to smoking and drinking, or smoking and consuming caffeine. Although polydrug use is mostly used to refer to mixing of psychoactive drugs, it can apply to the co­consumption of almost any drug. Possibly the most simple explanation of why a person participates in polydrug use in relation to alcohol and MDMA is that the MDMA consumption was unplanned. This author can attest to being both offered MDMA and asked if I was selling MDMA (This author can confirm that the answer was no to both questions) in Dublin clubs over the years, and the ease at which MDMA can be accessed is comparable to walking up to a bar to buy a beer. Alcohol is known to limit inhibitions, and so a person who has consumed alcohol may be more susceptible to accepting an offer to buy MDMA

- or indeed, being talked into taking it. Alternatively, there appears to be a myth that mixing drugs can increase the effects of the high associated with that drug. In the case of MDMA and alcohol, users believe that it increases the duration of feelings of euphoria, as the depressant qualities of alcohol prevent a ‘peak’ MDMA high occurring. However, evidence suggests that alcohol simply dampens the drug effects and has no real enhancing outcome. It has been suggested that MDMA limits the sedative effects of alcohol, though studies have demonstrated that cognitive performance is impaired following the consumption of both drugs. Additionally, the impairment of cognitive functioning results in judgement impairment, which puts a polydrug user at risk of alcohol poisoning, as the effects of MDMA can mask the sedative effects of alcohol.

Thus, this puts the polydrug user at risk of double the associated dangers than if they had consumed each drug independently.

There is no safe way to take MDMA. Countless forums offer guides on how to ‘safely’ consume MDMA, or the correct way to engage in polydrug use. In reality, there are dangers associated with drug consumption, no matter the drug or the manner in which they were taken. Often it’s luck of the draw that a person suffers no adverse effects following drug use. What may work for someone else, may not work for you. Stay informed, and be aware of the risks.

References and Research Links: [https://www.drugabuse.gov/publications/drugfacts/mdma­ecstasymolly](https://www.drugabuse.gov/publications/drugfacts/mdma-ecstasymolly) [http://www.drugfreeworld.org/drugfacts/ecstasy/short­long­term­effects.htm](http://www.drugfreeworld.org/drugfacts/ecstasy/short-long-term-effects.htm) [http://drug.addictionblog.org/mixing­ecstasy­with­alcohol/](http://drug.addictionblog.org/mixing-ecstasy-with-alcohol/) [https://www.drugabuse.gov/publications/mdma­ecstasy­abuse/brief­history­mdma](https://www.drugabuse.gov/publications/mdma-ecstasy-abuse/brief-history-mdma) [http://www.thejournal.ie/drug­use­ireland­2140045­Jun2015/](http://www.thejournal.ie/drug-use-ireland-2140045-Jun2015/)

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