



Matthew Frei

# Party drugs

## Use and harm reduction

### Background

Party drug use, the intermittent use of stimulants, ecstasy and so-called 'designer drugs' at dance parties or 'raves', is now part of the culture of many young Australians.

### Objective

This article discusses the risks associated with the use of 'party drugs' and describes an useful approach to general practitioner assessment and management of patients who may be using party drugs.

### Discussion

Party drug use is associated with a range of harms, including risks associated with behaviour while drug affected, toxicity and overdose, mental health complications and physical morbidity. Multiple substance use, particularly combining sedatives, further amplifies risk. If GPs have some understanding of these drugs and their effects, they are well placed to provide an effective intervention in party drug users by supporting the reduction of harm.

**Keywords:** substance related disorders; street drugs, methamphetamine, ecstasy, GHB; general practice



'I went to a club on the weekend doc, I took two pills, I think they were Es, had a few vodkas, then took 10 mls of G to come down, but I think it was something else because I felt like I was in the K-hole! So I had some lines of goey and some cones, and my mate gave me a zanny brick because I started getting a bit paranoid'.

*A general practitioner, bewildered by the patient reporting the use of a range of mysterious substances, may struggle to know how to respond. What are these drugs? What are the effects and risks when taken alone or in combination? And how does the GP approach a patient who uses so-called 'party drugs'?*

### What is party drug use?

The use of psychoactive drugs to heighten enjoyment of social gatherings, particularly where music is a focal activity, is well documented with the use of 'psychedelics' in the 1960s. In the past 2 decades, the terms 'party', 'rave', 'club' or 'dance drug' are used to refer to a pattern and setting of drug use, as well as some specific substances. Party drug use is a popular form of substance use and is typically an intermittent activity undertaken by young people, often to enhance the experience of music and dancing (*Table 1*).

While alcohol is the most widely used party drug, more often this term refers to psychostimulants or amphetamine type substances (ATS) such as:

- methylenedioxymethamphetamine (MDMA or 'ecstasy')
- methamphetamine ('ice' or 'crystal meth')
- cocaine and its derivatives
- gammahydroxybutyrate (GHB)
- ketamine
- 'old fashioned' drugs such as LSD and newer 'designer' substances such as mephedrone ('meow meow'), and
- benzylpiperazine (BPZ).

Some authors include benzodiazepines<sup>1</sup> and cannabis in this group. Benzodiazepines may be used to 'come down' from stimulant use or combined with other sedatives. The use of more than one drug, or polysubstance use, is common enough to be considered the norm.<sup>2-4</sup>

Stimulant drugs may be taken to sustain energy in people wanting to dance for long periods, hallucinogens to heighten perception of music, and sedatives to attenuate the effects of stimulants. Party drug use in certain groups may also be associated with use of amyl nitrate or pharmaceutical nitrites such as sildenafil.<sup>5-7</sup>



## What are the harms?

Harms from party drug use stem from both the:

- pharmacological effects of the drug, and
- harms associated with the setting of the substance use.

Risk related to setting of party drug use includes unsafe sex, sexual or physical assault, physical injury including motor vehicle trauma, and legal problems.

## Pharmacological harms

While the effects of commonly available party drugs are well known, purity, dose and composition of illicit drugs can vary considerably.<sup>8–11</sup>

Risk of harm is often dose related, and less is understood about additive effects when combining different agents. The effects and harms of common party drugs are summarised in *Table 2*.

## Stimulants and hallucinogens

There is an association between the use of ATS and mental illness,<sup>12,13</sup> as well as some evidence for psychostimulant neurotoxicity, particularly in the case of methamphetamine,<sup>14</sup> although more research is needed to clarify the significance of recreational MDMA on cognitive function.<sup>15,16</sup> These pathologies are likely appears to be related to dose, duration and frequency of use and individual susceptibility. Behavioural and mood changes, including paranoia and suspiciousness have been reported with acute and chronic ATS intoxication, and violence and aggression, although uncommon, may occur.<sup>17</sup>

Physical complications of stimulant use are less common, but cases of serotonin syndromes, cardiovascular and cerebrovascular damage, and hyponatraemia and hyperthermia have been reported.<sup>18,19</sup>

## Sedatives

The effects of sedating drugs such as GHB and ketamine are variable and depend on dose. Overdose with collapse is associated with GHB intoxication. The risk of overdose with GHB is high due to the small window between a recreational and toxic dose.<sup>20</sup>

**Table 1. Party drug use in Australia**

- 8.9% of Australians over 14 years of age have tried ecstasy with 3.5% reporting recent use<sup>1</sup>
- 5.9% of Australian adults have used cocaine with 1.6% reporting recent use<sup>1</sup>
- Use of ecstasy, cocaine and other amphetamine type substances are most likely to occur in those aged 20–29 years<sup>1</sup>
- Regular ecstasy users report use every 2–4 weeks, mainly in nightclubs, raves or private parties<sup>4,22</sup>
- Most ecstasy users report benefits from use such as enhanced social closeness, energy and dancing ability<sup>4,22</sup>
- Alcohol, cannabis, tobacco and methamphetamine are used by over 80% of regular ecstasy users<sup>4,22</sup>
- About 40% of ecstasy users report cocaine use with 10% or less reporting ketamine and GHB use<sup>4,22</sup>
- In 2009, the price of ecstasy in Australia dropped by \$3–10 and was described as ‘easy’ to ‘very easy’ to obtain<sup>4,22</sup>

**Table 2. Effects and harms of common party drugs**

Drug type	Effect(s)	Usual route(s) of administration	Harms
Amphetamine type substances: methylenedioxymethamphetamine (MDMA or ‘ecstasy’), methamphetamine (‘ice’, ‘crystal meth’), dexamphetamine, methylenedioxyamphetamine (MDA), paramethoxyamphetamine (PMA), methylenedioxyethylamphetamine (MDEA)	Increased energy, enhancement of sex and appreciation of music, hallucinations	Ingested orally, smoked, injected, snorted	Acute and chronic mental health problems, bruxism, hyperthermia, serotonergic syndrome, cardiovascular and cerebrovascular events, neurocognitive damage
Cocaine	Increased energy and sense of wellbeing	Snorted or injected (rarely smoked in Australia)	Acute and chronic mental health effects, cardiovascular and cerebrovascular events
Gammahydroxybutyrate (GHB)	Sedation, disinhibition	Ingested orally (usually as a liquid)	Collapse, coma
Ketamine	Sedation, hallucination, distortion of reality	Ingested orally (can also be snorted, rarely injected)	Collapse, psychomotor impairment, confusion
Lysergic acid diethylamide (LSD)	Hallucination and perceptual distortion	Ingested orally	Acute mental health effects, ‘flashbacks’



## Harm reduction and party drugs

The principles of assessment of the party drug user by general practitioners are outlined in *Table 3*. A nonjudgmental approach incorporating assessment of sexual, mental and physical health is important. Engaging the patient on aspects of their drug use or related physical, sexual or mental health issues that are concerning them is more likely to establish trust and rapport than focusing directly on the substance use. Young people in particular may be reluctant to discuss their substance use with a doctor, and in some cases multiple consultations, sometimes without the parent present, may be required to build trust.

Party drug users may be well read about the drugs they purchase and their harms, through online and other sources. On-site pill testing at dance events has been proposed as a public health harm reduction measure to inform users of the composition of illicit party drugs. However, the consistency and reliability of such testing has not been demonstrated.<sup>21,22</sup>

While this group may consider themselves informed, they will benefit from a medical assessment, provision of balanced information and appropriate medical intervention. When taking a history of drug use involving various party powders, pills and liquids, it is better to focus on the user's reports of drug effects (such as whether they felt stimulation, sedation, hallucination) rather than try to interpret and adopt street names of illicit drugs.

Doctors need to accept that some people will use these drugs, and may not respond to exhortations about the use of drugs being dangerous. Most will have seen their peers take party drugs with minimal ill effect. Party drug users will often identify many positive points of their substance use.<sup>23,24</sup>

Informing patients about reducing harm and risk associated with substance use is likely to be the most effective intervention. *Table 4* outlines some key aspects of harm reduction advice for party drug users.

### Treatment options

Intermittent party drug use is usually not associated with chronic substance dependence, and in many cases will remit without formal

**Table 3. Principles of assessment of party drug users**

- Be nonjudgmental and accept that people usually take party drugs for enjoyment and may not be ready to stop this behaviour
- Reinforce and 'give permission' to discuss substance use confidentially
- Discuss route of administration: injecting carries a distinct set of risks and inexperienced 'weekend injectors' can be particularly vulnerable
- Use the opportunity to discuss other health issues and other drug use, including tobacco
- Provided balanced accurate medical information about reducing harm

**Table 4. Harm reduction advice for party drug users**

- Smoking, ingesting or snorting is likely to carry less risk than injecting
- If injecting, use new injection equipment for each hit
- Use a small amount initially, particularly where the source is uncertain or where 'recreational' dose is hard to estimate (eg. with GHB)
- If dancing, keep well hydrated and take regular breaks (many venues have 'chill out' areas for this)
- Avoid using multiple drugs, in particular combinations with alcohol
- Make arrangements for transport and avoid driving
- 'Partner up' with a friend who is not using
- Practise safe sex
- Pill testing information may help, but is not always reliable

medical treatment. In fact, occasional party drug users, particularly younger patients, may not engage in anything perceived as drug treatment. Acute presentations for toxicity may be managed by hospital services, and may not be followed up by patients after discharge.

In some cases, individuals may escalate frequency of use and an addictive illness may develop, characterised by ongoing use despite negative consequences, use of increasing amounts of drug and sometimes a withdrawal syndrome. Dependence on GHB, while uncommon, is well documented and associated with a potentially severe acute physiologic withdrawal, sometimes with delirium and seizures.<sup>25,26</sup> Regular stimulant use may be associated with mental health problems, including anxiety, psychotic illness and depression.

Clinical experience in the treatment of regular heavy MDMA users is limited, and while research into medical treatments for ATS addiction is promising, the mainstay of treatment of problematic psychostimulant users remains engagement, harm reduction and support to maintain remission. Treatment of comorbid mental illness in stimulant users may improve outcomes, although this should be integrated with treatment of substance use. In substance using patients with a severe psychiatric symptoms, such as persisting psychosis, referral to a specialist alcohol and other drug treatment service for assessment by an addiction medicine specialist or addiction psychiatrist may be indicated.

### Conclusion

Substance use in the setting of dance clubs and similar gatherings can be difficult for doctors to assess and manage. Illicit substances used may be impure or have variable potency. Multiple drugs may be used, including alcohol or other sedatives, with risk of toxic overdose. Young people may believe that the benefits of their use outweigh any ill effects or risks.

The most effective approach to the patient who reports this pattern of drug use is an open, nonjudgmental discussion of risks and how to reduce harm. While most people are likely to 'grow out' of this form of



substance use, the treatment of comorbid disorders may be indicated. In patients whose party drug use becomes problematic, GPs should consider referral to alcohol and other treatment services.

### Resources

- Treatment information: [www.turningpoint.org.au](http://www.turningpoint.org.au)
- Erowid: drug information archives: [www.erowid.org](http://www.erowid.org)
- Ecstasy and related drugs reporting system, University of New South Wales, National Drug and Alcohol Research Centre: [www.med.unsw.edu.au/ndarcweb.nsf/page/EDRS](http://www.med.unsw.edu.au/ndarcweb.nsf/page/EDRS)
- Reach Out: information for young people about alcohol, drugs and mental health
  - stimulants drug information and fact sheets: <http://au.reachout.com/find/issues/alcohol-other-drugs/stimulants>
  - depressants drug information and fact sheets: <http://au.reachout.com/find/issues/alcohol-other-drugs/depressants>

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