

# Minimising the risks of amphetamine use for young adults with diabetes

Julie Jenks and Maggie Watkinson

## Introduction

For people with diabetes, taking amphetamine sulphate is potentially even more dangerous than for non-diabetic people. However, young people with diabetes are as likely to indulge as those without. Unfortunately, individuals have no choice but to use 'trial and error' when experimenting with recreational drugs as there are no guidelines to follow. This article describes the physiological effects of amphetamines on people with diabetes, discusses strategies to minimise these effects and suggests how nurses caring for this patient group might address the issues raised.

Recreational drug use is a growing problem in the UK. Survey findings 'suggest that there has been an alarming increase in the number of young people experimenting with and/or regularly using illicit drugs' (Galt, 1997). There are indications that, by the age of 24 years, almost half the British population have taken illegal drugs, and that 2.5 million people in England and Wales alone have taken 'speed' (amphetamine sulphate) (Armstrong, 1998).

## Amphetamines

The group of drugs collectively called the amphetamines comprise amphetamine, dextroamphetamine and methylamphetamine. They all have very similar properties.

Amphetamine sulphate is popularly known as 'speed' or 'whiz' because of its physiological actions. It increases heart rate and blood pressure by stimulating the release of noradrenaline from sympathetic nerve endings. It also stimulates the central nervous system and consequently increases energy levels, confidence, and powers of concentration (Tyler, 1986). However, this increase in energy is not 'given' by the drug — it is 'borrowed' from the body's energy stores as the metabolic rate is increased. This, in turn, increases glycogenolysis.

Other effects include appetite suppression, often resulting in long periods of not eating (Hayes, 1994), increased muscle activity, dilated pupils, and a dry mouth.

The effects of 'speed' may last for up to 5 hours (Alexander et al, 1996). In the aftermath of a 'speed trip' the individual may feel exhausted, depressed and very hungry.

Amphetamines were originally used in the 1950s for the treatment of depression, or as appetite suppressants, but are very rarely prescribed now. The main source of supply, therefore, is the illegal market (Alexander et al, 1996).

Amphetamine sulphate is one of the most popular illicit substances in the UK. It is largely associated with the dance, or club culture, for which energy and stamina are essential (ISDD, 1992) to enable individuals to dance all night. Amphetamines are often used for this purpose, being used only at weekends or for a night out, rather than taken daily. They may be injected, swallowed or, more commonly, sniffed or snorted. In 1992 they 'retailed' at approximately £10 for a 'wrap' (ISDD, 1992).

## Implications for the person with diabetes

People with diabetes may experience several physiological problems if they use amphetamines, particularly if it is associated with going to a club.

Because amphetamines increase motor activity and metabolic rate, the individual is vulnerable to hypoglycaemia. Although glycogenolysis is initially increased, with a

## ARTICLE POINTS

1 Recreational drug use is increasing in the UK, and there is no reason to suppose that people with diabetes are exempt from this.

2 The onset of hypoglycaemia after taking 'speed' can be extremely rapid.

3 Merely condemning illicit drug taking is unlikely to be effective.

4 There is little information on or research into illicit drug use in people with diabetes.

5 Nurses have a role in ensuring 'safe' illicit drug taking.

## KEY WORDS

- Diabetes
- Recreational drugs
- Amphetamines

Julie Jenks is undergraduate adult nursing student at Oxford Brookes University and Maggie Watkinson is Lecturer Practitioner in Diabetes Nursing at Radcliffe Infirmary NHS Trust and Oxford Brookes University.

**PAGE POINTS**

**1** Young adults with diabetes want to be independent and to act spontaneously, like their friends.

**2** Young people with diabetes experience the same social pressures to experiment with drugs as other young adults.

**3** It is as impractical to tell them not to take recreational drugs as it is for any other young adults.

**4** The use of illicit drugs presents greater problems and risks for people with diabetes than for non-diabetics.

*Publisher's note: This image is not available in the online version.*

*Dancing all night and taking amphetamine is a potentially dangerous activity for people with diabetes.*

**CASE STUDY**

**Cathy is a 22-year-old woman who regularly socialises with her peers in nightclubs at the weekend. She lives with four girl friends and attends the local university. Cathy and her friends take amphetamines regularly, on nights out. However, unlike her friends, Cathy has type I diabetes.**

**Cathy raises her blood glucose to a high level before taking 'speed', by eating some simple carbohydrates for immediate energy, and more complex ones which will be released gradually and provide energy through the night. She knows that her blood glucose can fall very quickly after taking 'speed'. On one occasion, Cathy's blood glucose concentration was 22 mmol/litre before taking the drug, but fell to 2.2 mmol/litre 40 minutes later.**

subsequent rapid increase in blood glucose levels, the rate at which the released glucose is used is also increased. Eventually there are insufficient supplies of stored glucose to meet the increased demand.

In addition, sustained and vigorous dancing also has physiological effects which, together with the increased metabolic rate, can potentially lead to severe and profound hypoglycaemia (see case study above.)

**Diabetes, young adults and recreational drug use**

Young adults with diabetes face many obstacles in their daily life: as well as the

psychological adjustment to living with a chronic condition they also have to adjust to the social aspects of having diabetes. The constant regulation and control of diabetes, and the organisation that this involves, can become tedious for young adults (Lundman et al, 1988), who want to be independent and able to act spontaneously like their friends.

In today's society, where the use of illicit drugs is on the increase, it is simply unrealistic to tell young adults not to take them. Likewise, it is just as impractical to tell young adults with diabetes that they should not take these drugs. The reality is

that young people with diabetes experience the same social pressures to experiment with drugs as other young adults.

However, recreational drug use is associated with more potential problems and dangers for young people with diabetes than for those without the disease. Information about how people with diabetes can remain as healthy as possible and control their diabetes while experimenting with recreational drugs should therefore be available.

### Management advice

It is imperative that individuals who are going to take 'speed' and go to a club know how to manage their diabetes in these circumstances, in order to avoid potentially dangerous hypoglycaemia. The need for the individual to be accompanied by a trusted friend who knows what to do should a hypoglycaemic attack occur in these circumstances should be emphasised.

The following management advice should help to reduce the risk of hypoglycaemia occurring under these circumstances:

- Insulin injections should be taken as usual before going out.
- A meal rich in complex carbohydrates should be eaten before taking 'speed', to ensure that some slow release carbohydrate is available later in the evening.
- It is essential to monitor blood glucose levels frequently while at the club, and always to carry glucose or sugar for the treatment of hypoglycaemia.
- Because 'speed' suppresses appetite, individuals need to be encouraged to take glucose even though they feel they do not want it. Taking starchy, longer acting carbohydrate, to maintain blood glucose levels, may prove unpalatable. Unfortunately, it is common to experience intense feelings of nausea when 'coming down' (Armstrong, 1998) as the effect of the amphetamine wears off. Liquids containing glucose may be more palatable — especially if the individual is experiencing a dry mouth — and will probably need to be taken frequently.
- The increased metabolic rate together with the heat generated by dancing may result in excessive body fluid loss. Individuals should be advised to drink

large amounts of non-glucose and non-alcoholic fluids to compensate for this.

- Blood glucose levels should be checked on returning home, and if possible a bedtime snack eaten before going to sleep.

### Implications for health professionals

It could be argued that providing information about the safer use of illicit drugs serves to condone the practice. However, there has been little research into the use of illicit substances in young people with diabetes, and the likelihood is that some will try them, and a lack of information may lead to naive and dangerous experimentation.

Gossop (1987) points out that:

**'There are no socially acceptable rules governing the use of such drugs, no education on how to take them without danger and no reinforcement of moderate rather than self-destructive patterns of use.'**

It is imperative, therefore, that nurses working in diabetes care develop the kind of relationship with young adults wherein the latter can obtain appropriate information about the recreational drugs they may be using. Supportive, open relationships that encourage disclosure and discussion about the dangers of illicit drug taking are more likely to result in increased safety and

### PAGE POINTS

**1** Information on how best to manage their diabetes while using recreational drugs should be available to all young people with diabetes.

**2** Individuals going to a club and planning to take 'speed' need to know how to control their diabetes under these circumstances.

**3** Lack of information may lead to naive and dangerous experimentation with illicit drugs.

**4** By developing open, supportive relationships with patients, nurses can encourage disclosure and discussion of the risks of illicit drug use and how they may be minimised.

### Advice for the young diabetic adult planning to go 'clubbing' and use amphetamines

- Take insulin injections as usual before going out
- Before taking amphetamine, eat a meal rich in complex carbohydrates
- Monitor blood glucose levels frequently while at the club
- Always carry glucose and sugar with you
- Take frequent drinks of glucose-containing liquids to maintain blood glucose levels, even if you feel you do not want it
- In addition, drink large amounts of non-glucose and non-alcoholic fluids to compensate for loss of body fluids
- Check blood glucose levels when you get home, and if possible have a snack before going to sleep
- Finally, make sure you have a friend with you who knows what to do if you have a hypoglycaemic attack

**PAGE POINTS**

- 1 In one American study, a quarter of all young adults had tried illicit drugs.
- 2 There is a severe lack of information on and research into the use of recreational drugs by people with diabetes.
- 3 Nurses are ideally placed to find out how those using these drugs manage their diabetes while 'under the influence'.
- 4 This information could be used to draw up guidelines on the 'safer' use of illicit drugs and thereby benefit many other young people with diabetes.

moderate usage. Merely condemning illicit drug use is unlikely to result in young adults ceasing to indulge in risky behaviour.

Discussion with the young adults involved will highlight individual concerns, but there is also a need for further research. A study undertaken in the USA indicated that as many as 25% of young adults with diabetes had tried illicit drugs (Glasgow et al, 1991). Nurses involved in the care of young adults with diabetes in the UK may wish to address the issues of the lack of research and information in this country.

A possible starting point could be to ask those who use amphetamines for recreational purposes how they manage their diabetes while 'under the influence'. This might provide useful information which could be shared with others. Thus, their learning from 'trial and error' could be used to draw up guidelines for the 'safe' use of illicit substances by people with diabetes.

**Conclusions**

The use of amphetamines by people with diabetes is potentially very dangerous. As can be seen from the case study, blood glucose levels can drop extremely rapidly and hypoglycaemia appears to be almost inevitable. Both young people with diabetes

and the health professionals involved in their care need to be aware of these problems.

However, there is currently a severe lack of information and research about the use of 'speed', as well as other illicit drugs, in people with diabetes, which needs to be addressed. It is unlikely that young people will stop using these substances just because we tell them to, and we have a responsibility to provide information to enable them to undertake this risky behaviour as safely as possible. ■

Alexander MF, Fawcett JN, Runciman PJ (1996) *Nursing Practice*. Hospital and Home: The Adult. Churchill Livingstone, Edinburgh

Armstrong S (1998) Speed. *The Face* 3(17): 97-100

Galt M (1997) Illicit drug availability in rural areas and attitudes toward their use — young people talking. *Health Education Journal* 56: 17-34

Glasgow AM, Tynan D, Schwartz R et al (1991) Alcohol and drug use in teenagers with diabetes mellitus. *Journal of Adolescent Health* 12: 11-14

Gossop M (1987) *Living With Drugs*. Wildwood House, London

Hayes N (1994) *Foundations of Psychology — An Introductory Text*. Routledge, London

Institute for the Study of Drug Dependence (1992) *National Audit of Drug Misuse in Britain*. Cottage Hill Press, London

Lundman B, Asplund K, Norberg A (1988) Tedium among patients with insulin-dependent diabetes mellitus. *Journal of Advanced Nursing* 13: 23-31

Tyler A (1986) *Street Drugs*. Hodder and Stoughton, London