

AMFETAMINE

Other common names Speed, uppers, whizz, blues (see also Ecstasy, p.444)

Drug category Central nervous system stimulant (see p.44)

Habit-forming potential

Regular use of amphetamine or methamphetamine rapidly leads to tolerance, requiring larger and larger doses to achieve the same effect. Users become psychologically dependent on the drug.

How taken

Usually swallowed as tablets or powder. Sometimes sniffed or mixed with water and injected.

Legitimate uses

During the 1950s and 1960s, amphetamine was widely given to reduce appetite for weight loss. Due to the risk of dependence and abuse, it is no longer used as an appetite suppressant. Amphetamine was also used to maintain wakefulness by drivers and pilots. It is still prescribed as dexamphetamine for attention deficit disorder (hyperactivity) and narcolepsy (see also Nervous system stimulants, p.44). Amphetamine is classified under Class B and Schedule II of the Misuse of Drugs legislation.

Short-term effects

Small doses of amphetamine reduce appetite and increase mental alertness and physical energy. Dry mouth, fast heart rate, rapid breathing and dilated pupils are common. As these effects wear off, depression and fatigue may follow. At high doses, amphetamine may cause euphoria, tremor, sweating, anxiety, headache, palpitations, and chest pain. Large doses may cause confusion, hallucinations, delirium, collapse, seizures, coma, and death.

Long-term effects and risks

Regular use frequently leads to muscle damage, weight loss, and constipation. People who use amphetamine regularly may also become emotionally unstable; psychosis may develop. Severe depression and suicide are associated with withdrawal. Heavy long-term use reduces resistance to infection and also carries a risk of damage to the heart and blood vessels, leading to strokes and heart failure.

Use of amphetamine in early pregnancy increases the risk of birth defects, especially in the heart. Taken during pregnancy, amphetamine leads to premature birth and low birth weight.

Signs of abuse

The amphetamine user may appear unusually energetic, cheerful, and excessively talkative while under the influence of the drug. Restlessness, agitation, and a lack of interest in food are typical symptoms; mood changes and paranoid delusions may also occur. Regular users may exhibit unusual sleeping patterns, staying awake for two or three nights at a stretch, then sleeping for up to 48 hours.

Interactions

Amphetamine counteracts the sedative effects of drugs that depress the central nervous system. It also increases blood pressure, opposing the effect of antihypertensives. Taken with monoamine oxidase inhibitors (MAOIs), it may lead to a dangerous rise in blood pressure. It also increases the risk of abnormal heart rhythms with digitalis drugs, levodopa, and certain anaesthetics given by inhalation.

METHAMFETAMINE

Methamphetamine, known as "crystal meth" or "ice", is about twenty times more potent than amphetamine, and is highly psychologically addictive. It is classified under Class A and Schedule 2. It is usually sold as a colourless crystalline solid, which can be smoked or injected. It produces mental alertness, talkativeness, reduced appetite, increased energy, lack of fatigue and insomnia. Other effects include restlessness, repetitive activity, twitching, jaw clenching, teeth grinding, and uninhibited sexual behaviour. Withdrawal leads to prolonged sleep, marked hunger, anxiety and depression, with a craving for more drug. Excessive use can cause hallucinations and paranoia.

BARBITURATES

Other common names Barbs, downers

Drug category Central nervous system depressant (see also Sleeping drugs, p.38), sedative

Habit-forming potential

Long-term, regular use of barbiturates can be habit-forming. Both physical and psychological dependence may occur.

How taken

By mouth in the form of capsules or tablets. Occasionally mixed with water and injected.

Legitimate uses

In the past, barbiturates were widely prescribed as sleeping drugs. Since the 1960s, however, they have been almost completely replaced by a range of newer drugs, including benzodiazepines, which may also be addictive but are less likely to cause death from overdose. The widest use of barbiturates today is in anaesthesia (thiopental).

Most barbiturates are listed under Class B and Schedule III of the Misuse of Drugs Legislation.

Short-term effects

The short-term effects are similar to those of alcohol. A low dose produces relaxation, while larger amounts make the user more intoxicated and drowsy. Coordination is impaired and slurred speech, clumsiness, and confusion may occur. Increasingly large doses may produce loss of consciousness, coma, and death caused by depression of the person's breathing mechanism. In fact, the lethality of barbiturates in overdose is exploited in their use for euthanasia in animals and humans.

Long-term effects and risks

The greatest risk of long-term barbiturate use is physical dependence. In an addicted person, stopping the drug suddenly precipitates a withdrawal syndrome that varies in severity, depending partly on the type of barbiturate, its dose, and the duration of use. Symptoms may include irritability, disturbed sleep, nightmares, nausea, vomiting, weakness, tremors, and extreme anxiety. Abrupt withdrawal after several months of use may cause seizures, delirium, fever, and coma lasting for up to one week. Long-term, heavy use of barbiturates increases the risk of accidental overdose. The risk of chest infections is also increased because the cough reflex is suppressed by long-term, heavy use of these drugs.

Use of barbiturates during pregnancy may cause fetal abnormalities and, used regularly in the last three months, may lead to withdrawal symptoms in the newborn baby.

Signs of abuse

Long-term heavy use of barbiturates may cause prolonged bouts of intoxication with memory lapses (blackouts), neglect of personal appearance and responsibilities, personality changes, and episodes of severe depression.

Interactions

Barbiturates interact with a wide variety of drugs and increase the risk of sedation with any drug that has a sedative effect on the central nervous system. These include anti-anxiety drugs, opioid analgesics, antipsychotics, antihistamines, and tricyclic antidepressants. High doses taken with alcohol can lead to a fatal coma.

Barbiturates also increase the activity of certain enzymes in the liver, leading to an increase in the breakdown of certain drugs, thus reducing their effects. Tricyclic antidepressants, phenytoin, griseofulvin, and corticosteroids are affected in this way. However, the toxicity of a paracetamol overdose is likely to be greater in people taking barbiturates.