
Synthetic drugs (new psychoactive substances)

Summary

- Synthetic drugs aim to mimic the effects of existing illicit drugs, such as cannabis, cocaine and ecstasy.
 - Synthetic drugs are also known as 'new psychoactive substances'
 - It is not known how safe synthetic drugs really are, as there is limited research on the short-, medium- and long-term effects of these substances.
 - There are no quality control checks on synthetic drugs, so it is not always known what substances they contain.
 - The Drugs, Poisons and Controlled Substances Act 1981 progressively bans the possession and supply of synthetic drugs and their derivatives as they emerge.
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Synthetic drugs, or new psychoactive substances (NPS), are also known by a number of other names including new and emerging drugs (NEDs), bath salts (monkey dust), herbal highs, herbal incense, aphrodisiac tea, NBOMes, and legal highs. These products are often marked 'not for human consumption'. These drugs aim to mimic the effects of existing illicit drugs such as **cannabis**, **cocaine** and **ecstasy**.

Synthetic drugs have different chemical structures to the illicit substances that they are trying to mimic, so they can be marketed as 'legal', safe and acceptable alternatives to illicit drugs. However, their legality can vary and their safety is unverified.

It is not known how safe they really are as there is limited research on the short-, medium- and long-term effects of these substances. There are also concerns about what is actually in new psychoactive substances. There are no quality control checks on synthetic drugs, so it is not always known what substances they contain.

The Victorian Government has strengthened the *Drugs, Poisons and Controlled Substances Act 1981* to ban substances comparable to illegal drugs that are sold as so-called 'legal highs'.

Additional substances are banned under the Drugs, Poisons and Controlled Substances Act as they emerge.

Types of synthetic drugs

The three most common types of synthetic drugs are:

- 'herbal highs' or 'party pills'
- synthetic cannabinoids
- research chemicals and drug analogues.

'Herbal highs' and 'party pills'

'Herbal highs', also known as 'party pills' and pellets, are often marketed as herbal supplements that offer increased energy or mood with similar effects to stimulants, such as ecstasy or amphetamines. They typically contain a variety of natural and chemically active ingredients, which can include caffeine, citrus, aurantium and geranamine (geranium extract). These products also often contain ingredients that are not listed on the label.

Until 2009, the two most common chemical active ingredients were BZP (benzylpiperazine) and TFMPP (trifluoro-methyl-phenylpiperazine). Other ingredients included Piper nigrum, phenylalanine, tryptophan and tyrosine.

After BZP was banned in Australia in 2009, manufacturers began marketing new products. Analysis of these products found a range of chemicals, including:

- cathinone
 - methcathinone
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- phthalimidopropiophenone
- mephedrone
- methylenedioxypropylvalerone (MDPV).

Because of their newness, the potential harms associated with these chemicals are difficult to predict. Each product may contain different chemicals with varying toxicity.

Synthetic cannabinoids

Synthetic cannabinoids are man-made chemicals that are similar to delta-9 tetrahydrocannabinol (THC), which is the active ingredient in cannabis. Synthetic cannabinoids are usually sold combined with herbs and aim to mimic the effects of cannabis. They are generally smoked or occasionally drunk as a tea.

'Spice' was the earliest in a series of synthetic cannabinoids sold in Australia. Since then, a number of other similar products have been developed for sale, such as 'Kronic'.

Many synthetic cannabinoids have only recently been developed, so there is very limited information available about their short- and long-term effects.

Reported effects of synthetic cannabis include:

- a similar effect to smoking cannabis
- disconnection from thoughts, feelings, memories and sense of identity (dissociative state)
- a fast and irregular heart rate
- relaxation
- euphoria
- racing thoughts
- delayed reaction time
- dry mouth
- lowering of inhibitions
- dizziness
- agitation
- paranoia.

A growing number of reports, mostly from the United States, indicate that people are increasingly experiencing toxic effects from using synthetic cannabinoids, including:

- a rapid heart rate
- hypertension
- tachypnoea (rapid breathing)
- chest pain
- heart palpitations
- hallucinations
- racing thoughts
- seizures
- death.

These reports also suggest that the toxic symptoms, when not resulting in death, last for three to four hours, with no adverse effects recorded as persisting beyond this timeframe. However, there is concern about serious acute and long-term toxicities.

Research chemicals and drug analogues

Drug analogues are substances that are chemically similar to other drugs. Drug derivatives are substances that are made from another drug. These drug analogues or derivatives often belong to various groups of drugs such as cathinones, phenethylamines and tryptamines. One example is mephedrone (commonly called meow meow).

Drug derivatives are included in the bans under the Drugs, Poisons and Controlled Substances Act. Labelling on these products can be deceptive, with some described as 'research chemicals', 'plant food' or 'bath salts'. They also include warnings such as 'Not for human consumption' or 'Only for research purposes'.

In 2010, both the United Kingdom and Australia banned mephedrone and then a number of other substances emerged, containing new chemicals. These include:

- naphyrone
- methylone
- MDPV
- flephedrone
- methoxetamine (a ketamine analogue).

Because some of the chemicals contained in these new products, such as MDPV, are active at very low doses, they are often cut with fillers to make sure the dose is similar to the illicit drugs that it is aiming to mimic.

Media reports suggest that a number of people have experienced adverse effects from taking these drugs. Some of the reported effects include:

- emotional fragility
- diminished cognitive ability
- muscular pain
- a sore jaw
- loss of appetite
- days of hallucinations
- acute agitation
- paranoia
- heart problems
- chest pain
- headaches
- suicidal thoughts.

Where to get help

- In an emergency, call triple zero (000)
- Your **GP (doctor)**
- **Pharmacist**
- **DirectLine** Tel. **1800 888 236** – for confidential counselling, information and referral to a registered methadone prescriber
- **DrugInfo** Tel. **1300 85 85 84** – for alcohol and other drug information
- **Youth Drug and Alcohol Advice service**, Victoria Tel. **1800 458 685** (9 am to 8 pm, Monday to Friday)
- **Family Drug Support** Tel. **1300 368 186** (24 hours a day, seven days per week)

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