

Legal doesn't mean safe: new drugs, new challenges

Stewart Simpson, CYCJ

The term 'legal highs' refers to a broad category of unregulated psychoactive compounds or products containing them, marketed as legal alternatives to well-known controlled drugs. Although many of these substances are "legal" they can cause significant physical and mental harm and in many cases, have been fatal.

New psychoactive substances (NPS) fall in to seven broad categories described below. [See The Drugs Wheel for more information.](#)

Depressants (downers) slow down the nervous system, breathing and heart rate. They reduce inhibition, promote relaxation and impair physical and mental functions.

Opioids are used to relieve pain and include substitute prescribing medications (such as methadone). They have depressant effects and suppress the central nervous system.

Stimulants (uppers) stimulate the central nervous system, increasing heart rate and blood pressure. The user may experience increased energy and concentration, a suppressed appetite and a decreased desire to sleep.

Empathogens also stimulate the central nervous system and may have additional mood enhancing properties such as increased empathy and connection with others, which often results in a more intense feeling of euphoria.

Psychedelics alter perceptions of the senses. They often give powerful visual effects e.g. exaggerated colours, visual patterning and hallucinations. The user can experience feelings of entering a different consciousness referred to as "tripping".

Dissociatives produce hallucinogenic effects including sight and sound distortion and can cause the user to feel detached from their body and environment. Many dissociatives have general depressant effects and can produce sedation, respiratory depression, analgesia, anaesthesia and ataxia (lack of coordination); as well as cognitive and memory impairment and amnesia.

Cannabinoids are chemical compounds which act on the cannabis receptors in the brain resulting in varying effects. There are at least 85 different cannabinoids in the cannabis plant and numerous synthetic cannabinoids mimic the effects of one of the cannabinoids in cannabis, called THC.



Use of synthetic cannabinoids can cause relaxation and sedation but can also cause psychological disorders including depression, anxiety and paranoia.

The supply of NPS

The primary region of manufacture is Asia (China and India), followed by Europe, with high prevalence of export to UK and Ireland – [find out more](#). NPS can be supplied in unlabelled packaging and distributed through social networks including those involved in illegal drugs. Alternatively, NPS can be sold as a product, professionally packaged and sold over the counter in shops or online. In 2013 there were [651 online shops known](#).

Harms

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), United Nations Office on Drugs and Crime (UNDOC) early warning advisory systems and local services are the main reporters of harms. The main adverse effects associated with each main NPS groupings are:

Physical symptoms include: cardiovascular problems, hyperthermia (over heating), kidney failure, fluid on the lungs, seizures, weight loss.

Psychological disorders include: anxiety, agitation, memory loss, depression (including suicidal ideation) and psychosis. Some products may also increase aggression leading to violence.

The impact on health is dependent on whether other drugs and/or alcohol were used and on the method of use, for example, [those who inject NPS may experience different health implications to those injecting other substances](#). NPS are usually water soluble, yet bound with wood chip resulting in those injecting NPS also injecting this into their blood stream. Those experiencing effects of NPS may present at A&E and recording is reliant on self-reporting, urine toxicology screening and post-mortem toxicology to identify substances taken. Rapid deterioration is common, going from agitation (experiencing muscle activity and altered mental state) to hyperthermia (body temperature of less than 35°C) to hypothermia (body temperature of greater than 40°C). In the latter, death is almost inevitable.

Policing NPS

There is no easy solution to policing NPS use and it is not as simple as “arresting our way out of it”. The Police support education and public safety. Since 2011, over 280 NPS have been controlled under the Misuse of Drugs Act 1971. Operation Redwall identified 225 different NPS brands, 37 different drugs with up to six drugs in each NPS packet.

[Access podcasts and presentations from the ‘Legal doesn’t mean safe: new drugs, new challenges’ conference.](#)

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w www.cycj.org.uk
e cycj@strath.ac.uk
 [@CYCJScotland](https://twitter.com/CYCJScotland)