



Synthetics (not pot)

Originally synthetic drugs were produced commercially for valid medical purposes. Over time they got diverted into the black market and people then began producing them in clandestine labs: acid, methamphetamine, ecstasy etc.

Based on their chemical composition synthetic drugs are commonly divided into two categories:

1. Synthetic Cannabinoids contain chemicals that mimic the effects of THC (the primary psychoactive compound in cannabis) and act on the cannabinoid receptors in the body and brain
2. Synthetic Stimulants contain chemical compounds that mimic the effects of cocaine, LSD and methamphetamine.

This information sheet is about synthetic cannabinoids.

Most synthetics in NZ are imported as a powder which is then dissolved in a solvent and sprayed onto finely chopped plant material (often damiana). Most are smoked in the same way as cannabis. Liquid synthetics now available in NZ are smoked through e-cigarettes/ vaporisers.

Cannabinoids - natural and synthetic

In our body we have cannabinoid receptors as part of our endocannabinoid system which is involved in various physiological processes including appetite, pain-sensation, mood, and memory.

When we smoke or ingest cannabis the cannabinoids (chemical compounds) found in marijuana interact with the cells in our endocannabinoid system.

Many people expect synthetics to have the same effect as natural cannabis however around 200 different synthetic cannabinoids have been identified internationally – each with its own chemical structures which may be different to THC. Each different compound can cause different responses; some are more potent and some less potent than cannabis. One synthetic compound AMB-Fubinaca is reported to be 75-100 times more powerful than natural THC.

Synthetics and their effects

It is difficult to describe the general effects as different chemicals have different effects

- Some have effects similar to cannabis while others have effects like ecstasy, cocaine or methamphetamine
- For example JWH-018 causes a speedy head stone leading to a general body stone after-effect whereas JWH-073 causes a combined body and head stone where the user feels disconnected or emotionally distant
- Effects usually last around 2-4 hours but this can vary from person to person. Substances with this type of short lifespan are easier to become addicted to because you need to use more and more often to get the desired effect

Physical effects

Short term physical effects include seizures, severe agitation, dizziness, nausea and vomiting, tremors, high blood pressure, rapid heart rate and breathing, abdominal or chest pain

Mental effects

Short term mental effects include memory loss, psychosis, paranoia, hallucinations, thoughts racing

Issued by	CADS Quality Co-ordinator	Issued Date	Nov 2017	Classification	Class #
Authorised by	CADS Clinical Director	Review Period	36 months	Page	Page 1 of 3

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Long term physical effects include constant vomiting (hyperemesis which can occur after as little as two weeks); persistent cough with mucus; difficulty breathing	Long term mental effects include depression and recurring psychotic episodes
During withdrawal people experience constipation, difficulty eating and weight loss	During withdrawal people experience panic attacks, inability to sleep, and severe confusion/ disorientation

Withdrawal from synthetics is more severe than withdrawal from cannabis. People experiencing severe withdrawal symptoms are advised to contact CADS or your GP for help

Synthetics are risky for a number of reasons

- Synthetics have not been tested in the way medicinal drugs are tested and there is no quality control in the process
- There is no way for the user to know which of the many synthetic cannabinoids is present on the plant material they purchase
- A packet can contain chemical “hot spots” - dangerously potent areas of the synthetic cannabinoid/s due to a poorly mixed solution or an uneven spray job
- Batches of the same product can give different effects and the same packaging does not mean the same cannabinoid is present. A packet might include more than one synthetic cannabinoid
- Each chemical has different effects at different dosages. It is impossible to know what or how much of each compound is present in the product
- Some very potent chemicals used increase the risk of poisoning and other toxic effects. Local sellers admit adding kitchen spray cleaner, rat poison, and horse tranquiliser to the plant material
- People react to drugs in different ways. Some people will be more severely affected than others – and there is no way of knowing who those people will be
- All drugs can be affected by other drugs, alcohol, the person’s mental health and underlying medical conditions

Recognising and responding to an overdose

The effects of synthetics vary from substance to substance so it might be hard to spot the signs of overdose. Someone who's overdosing usually isn't aware of what's happening so they need help.

If their face turns blue they are close to death and need immediate attention – *start CPR – and call 111 immediately.*

If they stop breathing it only takes a few minutes for them to die

- Call an ambulance, tell the operator your location, and stay on the line
- Be calm, clear and concise. Tell the operator that someone has stopped breathing and an ambulance is needed urgently
- Try to keep the person and any other people around them calm
- If you're asked if it's an overdose be as honest as you can. If you're scared say you think the person took something

If you see or experience any of these symptoms seek medical help

Physical signs	Psychological signs
• Can't be woken up	• Paranoia, fear and panic
• Rigid muscles / spasms	• Confusion or distress
• Shaking / shivering	• Agitation and aggression
• Fever / overheating	
• Nausea or vomiting	
• Difficulty / stopped breathing	
• Seizure	



Issued by	Issued Date	Classification
Authorised by	Review Period	Page

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- If the person is overheating try to cool them down by loosening outer clothing or putting a wet towel on the back of the neck or under their arms
- If you can't get a response from the person put them in the recovery position

What NOT to do

- Don't wait for the person to 'get over it' – they might die or suffer permanent brain damage from lack of oxygen
- Don't induce vomiting as this could cause choking
- Do not put the person in a cold bath. If they're still breathing you can put them under a cold shower to wake them but don't leave them alone and keep the water away from their nose and mouth
- Never leave the person alone even after you've called an ambulance. If you must leave put them on their side in the recovery position – *don't leave them lying on their back*
- Many people are afraid to call an ambulance when someone OD's but not doing so could see you in an even stickier situation.

Reducing harm

- No use is the safest option
- These products are more likely to cause problems for people who have or have previously had mental health and/or drug and alcohol issues
- We strongly recommend avoiding alcohol in combination with these substances
- Do not attempt to drive or operate heavy machinery
- Do not use if pregnant or breastfeeding, you have any health condition or you are on medication

For more information

- Call ESR (Institute of Environmental Science and Research) on 0800 377 633 or www.esr.cri.nz
- Poisons Centre on 0800 764 766 or 0800 POISON (24/7 toll free)
- Healthline on 0800 611 116 — toll free and available 24/7

References

This information was gathered from a variety of sources including:

- European Monitoring Centre for Drugs and Drug Addiction
- Institute of Environmental Science and Research
- Ministry of Health
- Science Media Centre

**If you are concerned about your own or someone else's use of these or other drugs contact
Community Alcohol & Drug Services (CADS) on 845 1818
or www.cads.org.nz**

Issued by	CADS Quality Co-ordinator	Issued Date	Nov 2017	Classification	Class #
Authorised by	CADS Clinical Director	Review Period	36 months	Page	Page 3 of 3

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