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## Synthetic Cannabinoids

Professor John Saunders,  
Consultant Physician in Addiction Medicine,  
South Pacific Private

**S**ynthetic cannabinoids arrived in Australia about three years ago and have been widely promoted as 'legal highs'. What effects do they have and how concerned should we be?

Jarred had smoked marijuana for several years, usually after work or with friends at the weekends. He had become somewhat concerned about its effects: particularly in the winter months after catching a cold he often had a chest infection. However, smoking relaxed him and it was what many of his friends did.

Jarred had recently been offered a new job. This involved using complex machinery and he would be required to undergo periodic urine drug screening. The salary increase was very tempting, but Jarred did not think he would be able to cease marijuana use in order to comply with the drug testing regime. A friend of his told him that he was smoking a synthetic cannabis drug, which he had bought from a tobacconist in the City. He said it was legal, a 'legal high' and the beauty of it was the drug could not be detected by urine screening.

Jarred started smoking this new drug. He switched easily from his usual marijuana and took up the new employment. Life was good for a period. Jarred felt that the new job was within his capabilities. However, the industry seemed to attract an odd group of people; he couldn't really relate to them. They often commented on his appearance and he found this quite offensive. They began to criticise his way of working with the machinery, which Jarred found distressing as he considered himself quite expert in this type of work. The comments and criticisms went on until one day Jarred had what he described as a 'melt-down'. He was shouting at the other workers telling them he was the only person who really understood the job and this special understanding was because he had a direct line of communication with 'The Boss'. Jarred was stood down from work one day and the next thing he knew he was in hospital.

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“ He said it was a 'legal high' and the beauty of it was the drug could not be detected by urine screening... ”

Synthetic cannabinoids represent a distinct and novel class of compounds now available in Australia. They are chemical analogues of delta-9-tetrahydrocannabinol (THC).

More than 100 of these chemical variants have now been identified and they are given reference numbers (when identified by research laboratories) rather than chemical names. These drugs are typically sold in small transparent plastic bags (like a coin bag) and have the appearance of herbal tea; the price is typically \$30 per bag. They are usually smoked by themselves or with tobacco, or sometimes mixed with standard marijuana. Sometimes the so-called "synthetic" is standard marijuana laced with amphetamines. The first of these drugs was called "Kronik" and now there are scores of brand names.

naturally occurring cannabinoids (e.g. cannabidiol) are more typically relaxing and soothing. The actions of the synthetic cannabinoids are more like pure THC but with even greater psychotic effects. More prolonged psychosis is now increasingly recognised.

Treatment programs over the past year have been admitting increasing numbers of people because of the effects of the synthetics. Treatment typically involves prescribing an antipsychotic medication to alleviate the deeply disturbing experiences and bizarre behaviours seen in the user, who often finds it difficult to explain exactly what he (or she) is experiencing.

Typically a week is required for the patient to settle down sufficiently to engage in therapy.

**Synthetic cannabinoids brands:**

Kronik	Ash Inferno
Bombay Blue	Maui Waui
Kilimanjaro Sky	Galaxy
Zeus	Ash-Black Label
Northern Lights	Vortex
Black Widow	Camp Fire
Circus	AK-47
Raw	Jamaica Gold
Black Ash	Beyond Death



The effect of the synthetics is recognisable as that of cannabis (i.e. like standard marijuana) but is described by users as being 'raw'. These drugs are generally much more powerful than marijuana and cause pronounced psychotic experiences. Users may feel that everyone else is looking at them, and particularly the police and bikies. One patient said that when outdoors he would talk to other people spontaneously, assuming that they had him under surveillance and possessed listening devices, but if he engaged with them they would think that he was one of them and he would not be harmed. Those affected report they are unable to stop these thoughts coming into their mind. If they do not smoke for a while, they develop a withdrawal state.

Synthetic cannabinoids are thus more psychotomimetic than natural cannabis. Many people think that natural cannabis contains just delta-9-THC, but in fact there are up to 60 different cannabinoids present. Pure delta-9-THC produces euphoria but can also cause bizarre experiences, whereas some

Staff skills are vital to reassure the person that the effects will decline with time and treatment. It can be a deeply worrying period for the patient and the family. Following regular anti-psychotic medications, the person will usually settle and engage with staff without it being a fearful experience. The therapy program is based on relapse-prevention techniques and encouraging the person to make significant adjustments in their life to avoid the use of these and similar drugs in the future.

Recognising the dangers posed by synthetic cannabinoids, governments in Australia imposed a blanket ban on them which took effect in early July 2013. Prior to this these drugs were legal as international regulations can only declare illegal a specific chemical compound, rather than a whole class of drugs. This allowed drug manufacturers the opportunity to bypass the law and to sell synthetic cannabinoids openly. However, they continue to be widely available although in a more clandestine way. We need to be continually alert to them.