INSTITUTE OF ENVIRONMENTAL SCIENCE AND RESEARCH

SYNTHETIC CANNABIS



What is synthetic cannabis?

Synthetic cannabis is smokeable plant material that has been adulterated with one or more chemical compounds that are referred to as synthetic cannabinoids. The synthetic cannabinoids are added to the dried plant material so that it can be smoked in the same way as cannabis. The plant material itself has no psychoactive effect. The active ingredients in synthetic cannabis are not natural compounds but are manufactured in a laboratory.

What are synthetic cannabinoids?

Synthetic cannabinoids are manufactured chemical compounds. They are designed to react in the brain in a similar way to cannabis. There are around two hundred different synthetic cannabinoids that have been identified internationally, all with different chemical structures. All synthetic cannabinoids have a different chemical structure to THC, the major psychoactive component of the cannabis plant. Synthetic cannabinoids have not been clinically tested in the way a new medicinal drug would, and so their safety has not been established. Each of the different synthetic cannabinoids can cause different responses in the body. Some have been found to be more potent and some less potent than cannabis. For

example one synthetic cannabinoid, AMB-FUBINACA, is reported to have an effect that is 75 times stronger than THC, the psychoactive compound found in cannabis.

What is the relationship between synthetic cannabis and cannabis plant material?

Cannabis is a naturally-occurring plant with psychoactive properties that have been known for hundreds of years. THC is known to act mainly on a particular part of the brain, called the CB1 receptor. When THC interacts with this receptor it causes a reaction which may include a change of mood, behaviour, perception and consciousness. Synthetic cannabinoids are designed to react with the same part of the brain in an attempt to create an effect like that of THC. Synthetic cannabis may contain one or more different synthetic cannabinoids which might have a similar effect to cannabis but might give completely different psychoactive highs, or side effects.

Why ingest synthetic cannabis by smoking?

Smoking is a very direct means to get the chemical to the brain to cause an impact. The chemical is vaporised and breathed into the lungs. The chemical is then absorbed from the lungs into the blood system and the blood system

transports the chemical to all parts of the body, including the brain where it can have a psychoactive effect.

How is synthetic cannabis prepared?

Most synthetic cannabinoids in New Zealand are likely to have been produced in an overseas laboratory. They are imported in powder form and dissolved in a solvent which is then sprayed onto finely chopped plant material. The plant material is left to dry before packaging. The resulting product is synthetic cannabis. There is no quality control in the process. There is likely to be variability in the amount of synthetic cannabinoid present across different batches, and even in a single dose.

What are the risks?

The user does not know which of the many synthetic cannabinoids is present on the plant material they purchase. The same packaging does not mean the same cannabinoid is present. A packet may include more than one synthetic cannabinoid.

Many of the synthetic cannabinoids are likely to be harmful with unpredictable effects. Synthetic cannabinoids have not been tested in the way medicinal drugs are tested. Synthetic cannabinoids have not been proven to be safe. People react to drugs in different ways. For some, the effects may be more severe than for others. The effect of a drug can also be affected by other drugs or alcohol taken by the person, their mental health, or the presence of underlying medical conditions.

For further information please call 0800 377 633