

Spice: The 'zombie drug' being found in some vape liquids

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Five teenagers in London were hospitalized recently after smoking vapes containing the drug known as [spice](#). This incident is only the latest in what appears to be a [growing problem](#) in the UK with [unregulated vape](#)

[liquids](#), especially those marketed as containing THC or cannabis.

Spice is a synthetic drug which originally came onto the recreational drugs market to mimic the effects of cannabis. But unlike cannabis, [spice](#) is far more dangerous due to its potency and the way it exerts its effects on the brain and body. It has even been nicknamed the "zombie drug" because of the [debilitating effects](#) it can have—causing psychosis, loss of movement, vomiting or diarrhea and even sometimes seizures.

This is why it's so important for users to think carefully about what vape products they use.

What is spice?

First described in 2008, spice is not a single compound but the name given to a diverse group of drugs called [synthetic cannabinoid receptor agonists](#) (or SCRAs). While these lab-made drugs are designed to mimic the effects of cannabis, they tend to be far more unpredictable and harmful.

There is currently no data on how these drugs are manufactured in clandestine laboratories thought to be located in China and India. But we do have some idea of how spice may be synthesized, based on academic experiments that have been published in [peer-reviewed journals](#). The purpose of such experiments is to understand how spice is made and any impurities it might contain, which in turn helps forensic scientists compare with real-world samples to identify drug trafficking routes.

Many different drugs may be classified as spice. Some versions are structurally very similar to those found in herbal cannabis and cannabis resin, while others share only partial structural similarities with the THC molecule itself (the psychoactive compound in cannabis). These drugs interact with cannabinoid receptors (which are primarily located in the

brain) in order to exert their effects. Hundreds of [synthetic cannabinoids](#) have now been [identified in Europe](#).

The drug is commonly sold in bags containing dried plants onto which a [solution of the drug](#) has been sprayed. Once the plant material is dry the drug can be smoked with tobacco. The pure drug can also be [mixed with vaping liquids](#).

What makes spice harmful?

Studies have shown that the compounds contained in spice act on both types of cannabinoid receptors that the body has. They also bind far more strongly to them than compared to cannabis, heightening the effects of the drug.

These effects are further compounded by the fact that after SRCAs have been metabolized by the body, their by-products can then bind to the cannabinoid receptors. This further [increases the effects](#) of the drug rather than reducing them. Normally, once the body has metabolized the drug it would be cleared from the system.

Those who use spice repeatedly can [develop a tolerance](#) to it, requiring more to achieve the desired effect—ultimately putting them at higher risk of harm.

How does spice affect users?

Synthetic cannabinoid receptor agonists were initially explored as experimental drugs to [alleviate suffering](#) related to a variety of conditions—including pain, anorexia, muscle spasms and glaucoma.

But because of their chemical structures, these drugs bind more strongly

to [cannabinoid receptors](#) than the drugs found in cannabis. Their [psychotropic effects](#) are also far stronger than cannabis and can last much longer.

Many people use spice in the hopes of experiencing effects similar to those caused by cannabis. But spice can instead cause a long list of unpleasant side effects. These include dizziness, inability to move, heart and breathing problems, seizures and even [mental health problems](#) (including anxiety attacks, paranoia and suicidal thoughts). Damage to the kidneys and gastrointestinal problems have [also been reported](#).

It isn't possible to predict who will suffer which of these side effects, but all spice users are at risk.

Is spice a growing problem?

It's difficult to gauge the size of the spice problem in the UK because of how hard it is to obtain accurate information about illicit drug taking.

One report suggests that in Manchester, [95% of homeless people](#) were using the drug in 2017. It is also known that the drug is being [smuggled into prisons](#) soaked onto paper—through letters, for example. This makes it difficult to detect the drug during screenings. One investigation even found that [nearly half](#) of male prison deaths that happened between 2015-2020 in England and Wales were due to Spice.

There is also an increasing number of reports in the press of vape liquids being laced with spice—leading public health authorities to [issue warnings](#).

There are now calls to make [young people](#) more aware of the dangers of spice and using certain types of vape liquids. Two identically labeled packets may not contain the same drug, or indeed the same amount. It's

also impossible to know what may be contained in vaping liquids.

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