



Synthetic Cannabinoids

Synthetic Cannabinoids – Isms, Spice, K2, Bliss, Black Mamba, Potpourri, Bombay Blue, Fake weed, Genie, Dream, Aroma, Skunk, Mojo, Zohai, Cloud 9 (liquid form often used in e-cigarettes)^{1,2}



<p>Characteristics (Designer Drug)</p>	<ul style="list-style-type: none"> • A mixture of herbs and spices typically sprayed with a synthetic compound acting as a cannabinoid receptor agonist and primary affects CB1 receptors in the brain.¹ • Sold legally by stating “not for human consumption” in order to evade legal controls⁵ • Large group of drugs that act on the cannabinoid receptors that is functionally similar to THC, with some exhibiting 10 to 90 times its potency.³ • Risks are increased due to the availability and variability (estimated in the hundreds) of the product, which is available online and at convenience stores and ‘head shops’.² • The product has considerable inter-and intra-batch variability in smoking mixtures, both in terms of substances present and their quantity.⁴ • Identification require gas chromatography with mass spectrometry, difficulties arise due to new formulations constantly emerging.³ • The initial half-life is over 1-2 hours and elimination half-life exceeds 24-36 hours (longer than THC).⁵ • Product is rapidly adapted by substituting other synthetic cannabinoids that have not yet been banned by existing legislation.⁴ 																											
<p>Presentation during intoxication^{2,5}</p>	<p>Common Signs and Symptoms of intoxication can include:</p> <table border="0"> <tr> <td>Anxiety</td> <td>Psychosis</td> <td>Mood swings</td> </tr> <tr> <td>Tachycardia</td> <td>Euphoria</td> <td>Coughing</td> </tr> <tr> <td>Agitation</td> <td>Dilated pupils</td> <td>Red Eyes</td> </tr> <tr> <td>Hypertension</td> <td>Chest Pain</td> <td>Alterations in cognitive Functioning</td> </tr> <tr> <td>High blood pressure</td> <td>Nausea/Vomiting</td> <td></td> </tr> </table> <p>Extreme intoxication signs and symptoms may include:</p> <table border="0"> <tr> <td>Seizures</td> <td>Acute Kidney injury</td> <td>Myocardial Infarction</td> </tr> <tr> <td>Ischemic Strokes</td> <td>Heart Attack/Strokes</td> <td>Severe Anxiety,</td> </tr> <tr> <td>Aggressive behaviour</td> <td>Intense hallucinations</td> <td>Agitation, and paranoia</td> </tr> <tr> <td>Death</td> <td></td> <td></td> </tr> </table>	Anxiety	Psychosis	Mood swings	Tachycardia	Euphoria	Coughing	Agitation	Dilated pupils	Red Eyes	Hypertension	Chest Pain	Alterations in cognitive Functioning	High blood pressure	Nausea/Vomiting		Seizures	Acute Kidney injury	Myocardial Infarction	Ischemic Strokes	Heart Attack/Strokes	Severe Anxiety,	Aggressive behaviour	Intense hallucinations	Agitation, and paranoia	Death		
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<p>Monitoring and support during intoxication</p>	<p>Goal⁶</p> <ul style="list-style-type: none"> • Preserve client safety • Assess client’s level of disorientation to determine their specific supportive safety requirements <p>Assess / Monitor⁶</p> <ul style="list-style-type: none"> • Obtain substance use history if possible (i.e. type of substance, time of last use, urine sample) • Mental status (including risk of harm to self or others, and agitation) • Physical status (including vital signs, risk for falls) <p>Supportive Interventions</p> <ul style="list-style-type: none"> • Provide supportive care and reassurance 																											
<p>Withdrawal presentation⁵</p>	<p>Symptoms may include:</p> <table border="0"> <tr> <td>Restlessness</td> <td>Irritability</td> <td>Muscle twitches</td> </tr> <tr> <td>Headaches</td> <td>Sweating</td> <td>Vivid dream/nightmares</td> </tr> <tr> <td>Nausea</td> <td>Tachycardia</td> <td></td> </tr> </table>	Restlessness	Irritability	Muscle twitches	Headaches	Sweating	Vivid dream/nightmares	Nausea	Tachycardia																			
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Monitoring and support during withdrawal	Monitor <ul style="list-style-type: none">• Monitor for symptoms of withdrawal and potential complications. Support ¹⁰ <ul style="list-style-type: none">• Provide supportive care, and ensure a calming environment
Notable Drug Interactions ⁴	<ul style="list-style-type: none">• Due to the relative infancy of the research there is a limited amount of information available about notable drug interactions. However, several studies have made reference to treating psychiatric symptoms with benzodiazepines successfully.• Reports indicate use of synthetic cannabinoids can cause death, particularly in combination with relatively high amphetamine serum concentrations.
Psychiatric Symptoms	<ul style="list-style-type: none">• Synthetic cannabinoid intoxication is associated with acute psychosis as well as exacerbations of previously stable psychotic disorders, and may have a propensity to trigger a chronic psychotic disorder among vulnerable individuals.²• In patients with Schizophrenia common effects are the occurrence or marked worsening of mood and anxiety symptoms and prominent behavioural changes.³



References

1. Publishers Group West. (2015). *Streetdrugs: a drug identification guide*. Long Lake: Publishers group West, LLC.
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3. Celofiga, A., Koprivsek, J., & Klavz, J. (2014). Use of Synthetic Cannabinoids in Patients with Psychotic Disorders: Case Series. *Journal of dual diagnosis, 10*(3), 168-173.
4. Sedefov, R., Gallegos, A., King, L., Lopez, D., Auwärter, V., Hughes, B., & Griffiths, P. (2009). Understanding the 'Spice' Phenomenon. *Thematic papers, European Monitoring Centre for Drugs and Drug Addiction*.
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6. Townsend, M.C. (2015). *Psychiatric Nursing: Assessment, Care Plans, and Medications*. Oklahoma: F.A. Davis Company.