Cannabis

Overview

Cannabis, also called marijuana, is a generic term that can refer to either the specific plant, the chemicals the plant contains, or the recreational drug. The cannabis plant and products derived from it are classified as schedule 1 in the Controlled Substances Act. The Agricultural Improvement Act of 2018 (Farm Bill) removed cannabis plants containing less than 0.3% of 9-tetrahydrocannabinol from this jurisdiction and defined them as hemp. Cannabis is one of the most widely used psychoactive substances worldwide, with prevalence of its use only trailing caffeine, alcohol, and tobacco. Though its global disease burden is less than other recreational drugs such as alcohol, tobacco, and opioids, cannabis use was associated with 10% of drug-related emergency department visits in the US in 2021. While it is associated with other mental health conditions, motor vehicle accidents, and suicidality, it remains unknown if cannabis use is independently associated with increased all cause mortality.

Pharmacology

9-tetrahydrocannabinol (THC) is the primary psychoactive agent contained in the cannabis plant that is responsible for many of its experienced effects. THC is a partial agonist at both type 1 and type 2 cannabinoid receptors which are responsible for most of its clinical effects. The pharmacokinetics of THC depend on the route of administration, peak plasma concentrations are reached in 5-10 minutes with inhalation but can take 2-6 hours when orally ingested.

Available Forms

Cannabis is used in many different forms. It is most commonly consumed in the form of dried plant products which are smoked. It is also available in extract oils and waxes that need to be vaporized and then inhaled, and edibles and tinctures that are consumed orally. These products are more susceptible to adulterants given the unregulated nature of their production.

Clinical Effects

Acute cannabis intoxication produces a variety of psychological and physiological effects that depend on the dose and route of administration. Psychologically, users experience euphoria, relaxation, increased appetite, decreased

Free. Fast. Expert help.
24 hours a day, 7 days a week.

POISON HELP
1-800-222-1222

short term memory, and decreased concentration. Hallucinations, delusions, and perceptual alterations are reported but less common. Physically, users experience tachycardia, xerostomia, conjunctival injection, horizontal nystagmus, and impaired motor coordination. Most intoxications are mild and self-limited and users do not seek medical care. Of those that do require medical treatment, the majority have severe anxiety or panic attacks. Children, however, have experienced coma, convulsions, and cardiopulmonary instability with ingestions of cannabis.

Persistent use of cannabis despite negative consequences is classified as Cannabis Use Disorder, similar to other substance use disorders. Cannabis use is also associated with 4 psychiatric syndromes that can persist past the initial intoxication including cannabis induced anxiety disorder, cannabis induced sleep disorder, cannabis induced psychotic disorder, and cannabis induced delirium. The signs and symptoms of these disorders are similar to the corresponding nonsubstance induced disorder. Other cannabis use associated syndromes include cannabinoid hyperemesis syndrome, a form of cyclic vomiting syndrome.

Diagnostic Evaluation
Cannabis is almost universally present on urine drug screens. Further testing is rarely clinically useful. Some synthetic forms or other forms of THC, such as delta-8 THC, may not cause a positive drug screen or are associated with negative confirmation testing by mass spectrometry.
Specific diagnostic criteria for cannabis use disorder can be found in the DSM-5.

Management
Acute cannabis intoxication is treated with supportive care. Benzodiazepines can be used for anxiety or agitation. Cognitive behavioral therapy is the most evidence-based treatment for Cannabis Use Disorder.

Summary
Cannabis use is associated with adverse health and psychologic effects. Most users who seek medical care can be treated with supportive care and benzodiazepines for agitation or anxiety. Children are at higher risk for severe toxicities. Cannabis use disorder can be treated with cognitive behavioral therapy.