

## Problematic cannabis use in adults

Cannabis use in the United States has risen over the last 20 years with changes in cannabis legalization. Most states have some form of cannabis legalization or decriminalization. Proposed medicinal uses for cannabis are widespread including pain, glaucoma, and sleep problems but studies to verify its efficacy are limited. There are three products approved by the United States Food and Drug Administration. These are cannabidiol (Epidiolex®) for rare, severe forms of epilepsy, and dronabinol and nabilone for nausea and vomiting caused by chemotherapy.

The primary psychoactive chemical of cannabis is delta 9-tetrahydrocannabinol ( $\Delta$  9-THC). Another key active chemical is the non-psychoactive cannabinoid, cannabidiol (CBD). As decriminalization/legalization continues throughout the US, visits to the emergency department (ED) in patients that use THC containing products has also risen. Patients may present to the ED with or without a history of cannabis use. Not reporting use may be due to concerns about legal action or because the ingestion was unintentional or unsuspected. Both children and adults may unintentionally ingest cannabis containing foods and beverages. Patients develop a wide range of symptoms including anxiety, weakness, decreased level of consciousness, nausea, vomiting, tachycardia, and confusion. The differential diagnosis is wide and includes life-threatening conditions infection and ischemic stroke.

There are some chronic health concerns associated with long-term cannabis use identified in the literature. It may exacerbate underlying mental health conditions, lead to gastrointestinal illness, increase risk of motor vehicle collisions, and can lead to the development of cannabis use disorder.

A retrospective chart review evaluated ED visits with cannabis ICD-9 and 10-CM codes included in the reason for visit between 2012 and 2016. These visits were then screened to determine if they could be categorized as partially attributable to cannabis and then further sorted into clinical complaint. A total of 9973 visits included the cannabis ICD-9 or 10-CM codes, and of those 2567 (26%) were found to be at least partially attributable to cannabis. The most common complaints that led people to come to the ED included gastrointestinal upset, psychiatric concerns, and intoxication (*Clin Toxicol* 2020;58(6):563-9).

Cannabis intoxication may also present as a suspicious outbreak in multiple people. We are aware of cases where chocolates were maliciously shared with an entire family of adults. This resulted in all adults presenting to the emergency department with various neurological symptoms and denying cannabis use. The urine drug screen was positive for cannabis and prompted the family looking into the shared chocolates.

As with all poisonings, we recommend consulting your regional poison center at 800-222-1222 for questions or management guidance.



### Did you know?

#### Cannabinoid hyperemesis syndrome may also lead to hospital visits.

Cannabinoid hyperemesis syndrome (CHS) can occur after prolonged, heavy cannabis use (*StatPearls, NBK549915*). CHS is a syndrome where patients experience cyclical nausea, vomiting, and abdominal pain after cannabis use. It generally involves several years of cannabis use prior to symptom onset, a cyclical pattern of hyperemesis while the individual is using cannabis, and resolution of symptoms after cannabis cessation. It is reported that these symptoms often are lessened by hot baths or showers. Available treatments have shown varying levels of efficacy, though capsaicin cream has been used in case reports and may offer relief. Unfortunately, randomized controlled trials are not available to help determine treatment of choice.

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