



HEALTHCARE PROFESSIONAL GUIDANCE ON CANNABIS

HEALTH TIPS TO KNOW WHEN PATIENTS USE MARIJUANA

Dear healthcare professional,

Cannabis (commonly known as marijuana) is legal for recreational or medical use in many states and is highly commercialized. In 2020 an estimated 57 million American used [cannabis in the past year](#). Similar to health risks associated with alcohol and tobacco, there are health risks associated with cannabis use. The following is evidence-based guidance to consider for patients who use marijuana.

Nomenclature

The main psychoactive component of cannabis is delta-9-tetrahydrocannabinol (THC). A non-psychoactive cannabinoid in the cannabis plant is cannabidiol (CBD). There is a difference between what a cannabis-based medication is and what is termed “medical cannabis”. Cannabis-based medications are well described synthetic, semi-synthetic, or natural cannabinoids with well-defined and standardized cannabinoid content. Examples include dronabinol, nabilone, Epidiolex, and one, currently not available in the United States, Sativex, a nabiximol. “Medical cannabis” on the other hand is cannabis plant and plant material or extracts, which are used for medical reasons, many of which are unproven. These products have been noted to be poorly regulated and frequently contaminated.

FDA Guidance

The FDA has researched and published adverse effects and warning for pure THC and CBD when approving prescription THC called dronabinol (Marinol) and prescription CBD, cannabidiol (Epidiolex). The information in this drug labeling is applicable to THC and CBD that patients may take, although drug purity and dosage from a dispensary does not meet the same standards of a pharmacy.

The [FDA warning for dronabinol](#) includes neuropsychiatric adverse reactions, hemodynamic instability for patients with cardiac disorders, seizures, and paradoxical nausea, vomiting and abdominal pain.

The [FDA warning for cannabidiol](#) includes hepatocellular injury, somnolence and sedation, suicidal ideations, and withdrawal seizures.

Potency

Cannabis products sold at dispensaries can have a high



percentage or milligrams of THC, and they may be potent. The smoked plant products may have THC at 17 - 40%. The concentrate products can have concentrations near 90%. In comparison the marijuana plant of [1995 averaged 4 % THC](#).

Contaminants

In a [study from UC Davis](#), 20 out of 20 legal dispensaries were found to have contaminants in their plant-based products. Fungal contamination with cannabis flower is well known. Therefore, the CDC has issued a warning against smoking cannabis for organ transplant recipients and those with other immunocompromising conditions.

Screening

The medical community routinely screens for tobacco and alcohol use. We now should screen for cannabis/marijuana use. Specifically, ask about age of onset, frequency of use, route of administration, and type of products used (plant-based, edibles, liquids, etc). It is important to document cannabis use, and then screen for a use disorder or diagnoses associated with adverse events.

Documentation

Please include cannabis in your diagnosis when applicable. ICD-10 codes are still in development for the various cannabis associated diagnosis. DSM 5 and ICD-10 both use Cannabis Use Disorder terminology based on meeting 2 or more criteria for a substance use disorder. Adverse events such as cannabis hyperemesis syndrome, cannabis induced psychosis, cannabis intoxication, and withdrawal should be documented. If you cannot find the cannabis related ICD-10 code for an adverse diagnosis, select “Cannabis poisoning” as a default diagnosis.

The Growing Brain

[Brain development](#) continues past bone development, into the mid 20’s, with final myelination occurring in the frontal cortex and pruning of neuronal pathways. The incomplete frontal lobe development results in poor executive functioning and several traits like impulsivity and sensation-seeking that are associated with the risk of developing a substance use disorder. Substance exposures to the growing brain are up to 7 times more likely to result in addiction than for older adults. While the legal age for drinking alcohol or consuming cannabis may be 21, the scientific age for preventing addiction is 25 years or even older.



Pregnancy and Lactation

The Surgeon General has issued a [warning](#) against using cannabis products while pregnant. [The American College of Obstetrics and Gynecology](#) similarly advises against using cannabis products during conception, pregnancy, and lactation. There is increasing evidence of correlations between fetal exposure to cannabis and worse maternal and fetal and childhood outcomes.

Pediatric Safety

Cannabis products should be locked away from children. Marijuana-related hospital encounters in children under the age of 6 increased [13.3-fold in 2018 compared to 2004, with 15% requiring intensive care treatment](#).

Drug Interactions

Both THC and CBD are metabolized by the cytochrome P450 system and therefore may interact with many medications. There are many pain medications and psychiatric medications that interact with CBD and THC. THC and CBD used with blood thinners present a risk of spontaneous bleeding. It is recommended to use medication interaction checkers that include cannabis or cannabidiol (such as one available for free at [Drugs.com](#)).

Cannabis Induced Psychosis

Cannabis is known to cause neuropsychiatric symptoms according to the FDA drug label for low concentration THC. High potency THC has a greater association with psychosis. Large European studies associated high potency THC, defined at over 10% concentration in plant-based products, with [5 times increase odds](#) ratio of developing a psychotic disorder. Medical providers are urged to recognize, document, and treat psychosis associated with THC.

Cannabis Use Disorder

Cannabis use disorder is defined using the same [DSM V 11-point criteria](#) as alcohol use disorder or opioid use disorder. Cannabis use disorder occurs in 9% of those who experiment with marijuana and up to 25-50% of daily users.

Cannabis Withdrawal

[Cannabis withdrawal is reported by up to 30% of regular users and in 50-90% of heavy users.](#) Many cannabis users do not



believe they suffer from withdrawal until they understand that the symptoms of cannabis withdrawal are different than alcohol or opioid withdrawal. The common symptoms of cannabis withdrawal are irritability, anxiety, insomnia, and headache, and significant cravings for marijuana. Typically, these symptoms last for about 2 weeks after cessation.

Cannabis Hyperemesis Syndrome

Cannabis Hyperemesis Syndrome (CHS) is associated with long-term cannabis use, typically of smoked product. The symptoms of CHS have been described as “scromiting”, screaming and vomiting. There are reported deaths with CHS caused by electrolyte imbalance. San Diego leaders published a [treatment guideline for CHS](#) that avoided opioids and repeated diagnostic radiation. Antipsychotic medications can be helpful in severe cases.

Drugged Driving

Drugged driving is a public health issue that is growing. [In a study of 191 regular cannabis users](#) who smoked 5.9%, or 13.4% delta-9-THC cigarettes, simulated driving worsened in the THC group compared to controls. The results were unrelated to THC content, use history or blood THC concentration. Driving impairment was indistinguishable from placebo at 4.5 hours post-consumption. [Marijuana users were about 25% more likely to be involved in a crash](#) than drivers with no evidence of marijuana use. The [National Highway Traffic Safety Administration](#) published information on Drug-Impaired Driving.

Opioid Use Disorder and Pain

Cannabis is contraindicated in patients who have an opioid use disorder according to the [American Society of Addiction Medicine](#). [Concurrent marijuana and long-term opioid use does not improve pain](#). [Cannabis use increased the risk of opioid use disorder in a study of 34,653 participants](#). The International Association for the Study of Pain (IASP) issued a [comprehensive multi-paper review in July 2021](#) concluding that, “due to the lack of high-quality clinical evidence, the International Association for the Study of Pain (IASP) does not currently endorse general use of cannabis and cannabinoids for pain relief.” From [a 2019 study](#), “Medical marijuana law enactment was not associated with a reduction in individual-level nonmedical prescription opioid use, contradicting the hypothesis that people would substitute marijuana for prescription opioids.





Cardiovascular Health

Patient with cardiovascular disease should be cautioned about cannabis use related to their individual medical diagnosis, per [American Heart Association](#).

Pulmonary Health

Smoking and vaping of any product is detrimental to pulmonary health. Smoked cannabis products can [contain similar toxins to tobacco products](#).

References

[The International Academy on the Impact and Science of Cannabis](#), IASIC has a medical library with many references of the adverse events of cannabis.

[NIH - National Center for Complementary and Integrative Health. Cannabis and Cannabinoid What you Need To Know](#)

