

MEDICAL CANNABIS

Maryland Family Healthcare LLC

Topics:

- Endocannabinoid system (ECS)
- Common Medical Conditions
- Dosing
- Safety Measures



Medical cannabis may be used as an adjunct to help manage chronic pain, post traumatic stress disorder (PTSD), insomnia, anxiety and other medical conditions. It is important to know how medical cannabis may be used for your specific condition. Medical advice should always be obtained from a healthcare provider who is licensed to provide expertise in the field.



WHAT YOU NEED TO KNOW ABOUT MEDICAL CANNABIS

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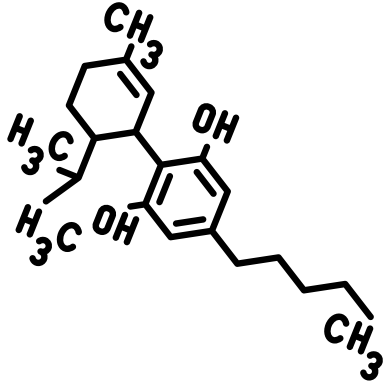
This handout summarizes medical cannabis information for certified medical cannabis users. A brief overview of how medical cannabis affects your body via the Endocannabinoid system will also be discussed.

Information about common medical conditions and dosing for these conditions, as well as safety considerations when using medical cannabis, will be covered.

Endocannabinoid System (ECS)

Humans have an endogenous (internal) cannabinoid system. It regulates overall health and maintains homeostasis.

Endocannabinoids, their receptors and proteins make up the ECS and are found throughout the body including the brain, organs, connective tissues, glands, and immune cells.



"Endocannabinoids are cannabinoids produced in the body, whereas tetrahydrocannabinol (THC) and cannabidiol (CBD) are phytocannabinoids derived from the cannabis plant."¹ THC causes psychoactive effects - the 'high' that is felt after use, whereas CBD does not.



Medical Conditions that Cannabis May Help



Chronic Pain

Studies have shown that cannabis could bring pain relief to thousands of people around the world. But is it right for you? Many patients turn to medical cannabis as an alternative to traditional medications for various reasons.

They find that medicinal cannabis has improved pain in some medical conditions, such as, neuropathic (nerve) pain, osteoarthritis (OA) pain, and has reduced multiple sclerosis spasms without intolerable side effects. One case report demonstrated that using a low THC/CBD ratio resulted in decreased OA pain, and even eliminated opioid use in an elderly patient.¹

But how does it reduce pain? It has been shown that activation of certain receptors (by THC) are responsible for reducing the perception of pain as well as CBD having a role in reducing inflammation.¹

PTSD

(Post-Traumatic Stress Disorder)

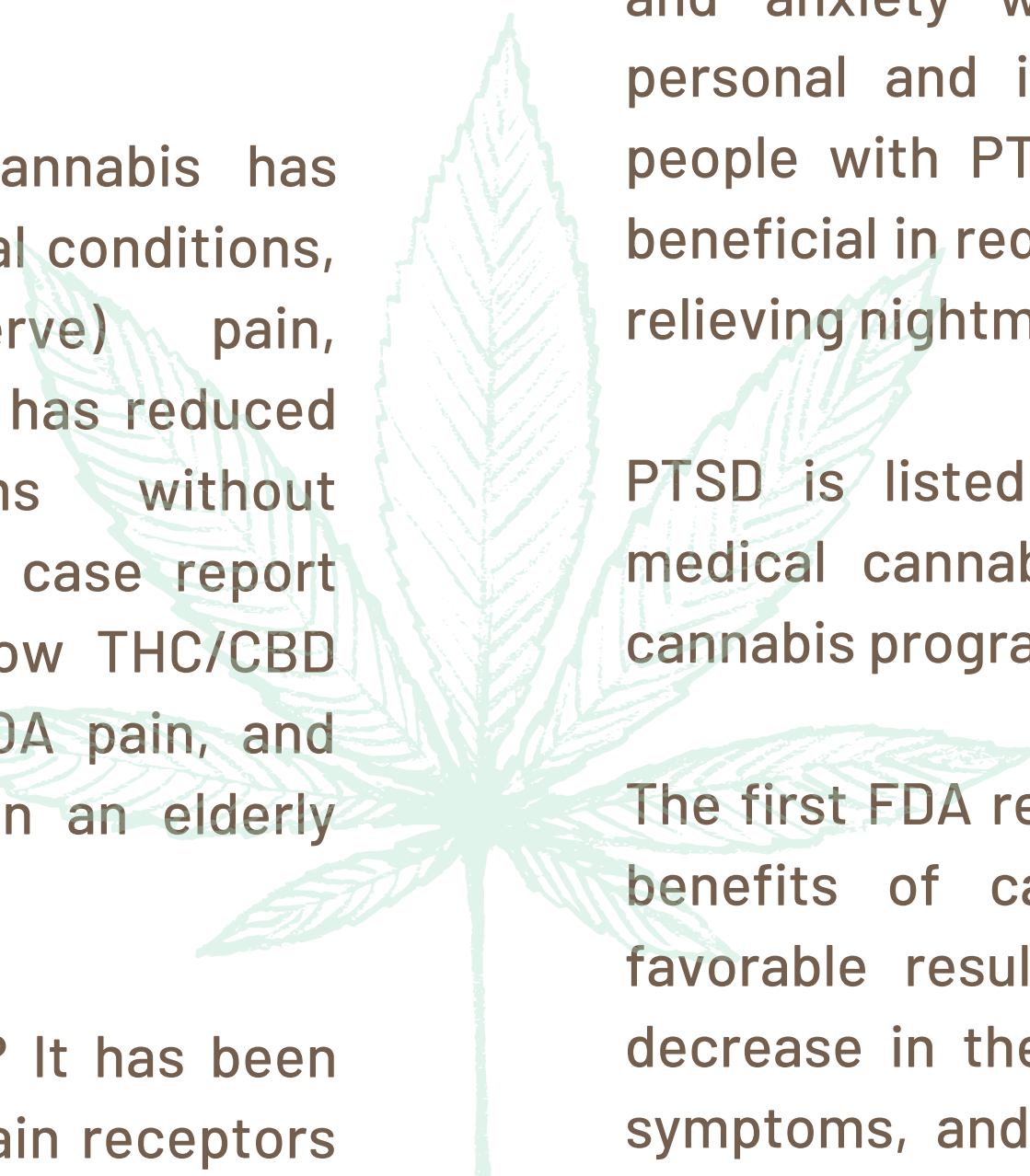


PTSD is a psychiatric condition that develops as an abnormal adaptation to a traumatic event.²

Symptoms include, but are not limited to: repeated recall of the event through intrusive thoughts, flashbacks, nightmares, depression and anxiety with subsequent alterations in personal and interpersonal functioning.² Many people with PTSD have found cannabis to be beneficial in reducing the intrusive thoughts and relieving nightmares.²

PTSD is listed as a qualifying condition for medical cannabis use in many state medical cannabis programs.³

The first FDA regulated study conducted on the benefits of cannabis on PTSD resulted in favorable results.⁴ It has shown a greater decrease in the severity of the patients PTSD symptoms, and were 2.5 times as likely to no longer meet the requirements for PTSD compared to patients who did not use cannabis.⁴





Insomnia

People with chronic insomnia have a problem with falling asleep (prolong sleep latency) and/or staying asleep.⁵ Insomnia disorder is present in 6% to 15% of the population. It is associated with significant disability and reduced quality of life.⁵

Cannabis has long been known to make people's eye lids go low, as sleepiness has been one of its side effects. But could that benefit those who suffer from Insomnia?

In a recent study conducted in 2019 84% of participants said that the use of cannabis was extremely helpful, and 83% of those who used over-the-counter sleep aids were able to reduce or even eliminate those products.⁶

Sleep studies have shown low-dose THC causes mild sedation and decreases sleep onset latency, which is ideal for people with insomnia.⁷

The effects of CBD on sleep are opposite that of THC, showing alertness at low doses and sedating properties at high doses.⁷

Anxiety



Anxiety is a careful subject with cannabis. While some patients experience a reduction in their feelings of anxiety, others feel that it causes anxiety. This may be due to a lot of different variables.

For example, the amount of cannabis inhaled or ingested, the ratio of THC/CBD in the plant or product, the frequency of use, as well as baseline medical problems.

We know from studies that CBD inhibits some of the psychoactive effects of THC and that it may be the CBD component that causes most of the reduction in anxiety.⁸

This was demonstrated in a double-blinded randomized study that examined the effects of CBD on social anxiety and public speaking.⁸

It was noted that subjects pretreated with CBD reported a significant reduction in anxiety and cognitive impairment.⁸

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2. Orsolini L, Chiappini S, Umberto V, et al. Use of Medicinal cannabis and synthetic cannabinoids in post-traumatic stress disorder (PTSD): a systematic review. *Medicina*. 2019;55(525)

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4. Veterans for Foreign Wars. Federal Study Finds Cannabis Beneficial for PTSD Treatment. <https://www.vfw.org/media-and-events/latest-releases/archives/2021/9/federal-study-finds-cannabis-beneficial-for-ptsd-treatment>

5.Winkelman JW. Overview of treatment of insomnia. https://www.uptodate.com/contents/overview-of-the-treatment-of-insomnia-in-adults?search=insomnia&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1

6.Bhagavan C, Kung S, Doppen M, et al, Cannabinoids in the treatment of insomnia disorder. :a systematic review and meta-analysis. *CNS Drugs* (2020) 34:1217-1228 <https://doi.org/10.1007/s40263-020-00773-x>

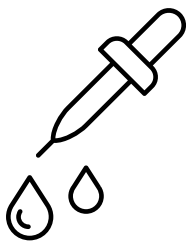
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8.Sarris J, Sinclair J, Karanacoska D, et al. Medicinal cannabis for psychiatric disorders: a clinically-focused systematic review. *BMC psychiatry* (2020) 20:24 <https://doi.org/10.1186/s12888-019-2409-8>.

Medical Cannabis Dosing



Warning: It is important to consult a medical provider and/or medical cannabis specialist for proper dosing advice. Research for medical cannabis dosing is limited and developing. The below recommendations are general and should be assessed on a case-by-case basis. A general rule is to start with a low dose and slowly increase as tolerated.



General timelines for onset of action with various methods of ingestion:

- Inhalation (smoking or vaping): 5 – 15 minutes and effects may last from 2 – 4 hours.
- Oral (Edibles): 60 – 180 minutes and effects may last from 6 – 8 hours.

Chronic Pain⁹:

A routine protocol may look as follows:

- Begin with a CBD dose of 5 mg twice daily
 - This dose may be titrated by 10 mg every 2–3 days until patient-centric goals are achieved.
 - The maximum dose is up to 40mg/day.
- After the maximum dose of 40mg/day has been reached, medical providers may consider adding THC at 2.5 mg and titrate by 2.5 mg every 2 – 7 days until a maximum daily dose of 40mg/day of THC.

Post-Traumatic Stress Disorder (PTSD)¹⁰:

- Research is still developing for this condition. A general recommendation is below:
 - Begin with 2.5 mg of THC and gradually increase

Anxiety¹⁰:

- Research is still developing for this condition. A general recommendation is below:
 - CBD dosage ranges between 2.5 mg and 10 mg, up to 50 mg.

Insomnia¹⁰:

- Research is still developing for this condition. A general recommendation is below:
 - THC is recommended at 5 to 7.5 mg taken one hour prior to bed or when bed rest is needed.

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Side Effects & Adverse Effects

- Side effects associated with THC are dry mouth, dry eyes, reddened eyes, slow pupil response to light, and decreases eye blink rate.
- Adverse effects can arise from too high of a dose and will resolve once the THC is metabolized out of the body, although it is impossible to reach a lethal dose of cannabis
- Adverse effects depend on the formulation that is being used.
- THC affects the nervous system and can cause drowsiness, dizziness, and intoxication.
- At high doses, THC can cause anxiety and paranoia.
- In patients being treated for high blood pressure or already have low blood pressure, THC can cause fainting when standing too quickly, referred to as orthostatic hypotension.
- Smoking or vaping can possibly irritate the airway.
- Cannabis can interact with other medications, be sure to follow provider instructions when taking your medication.

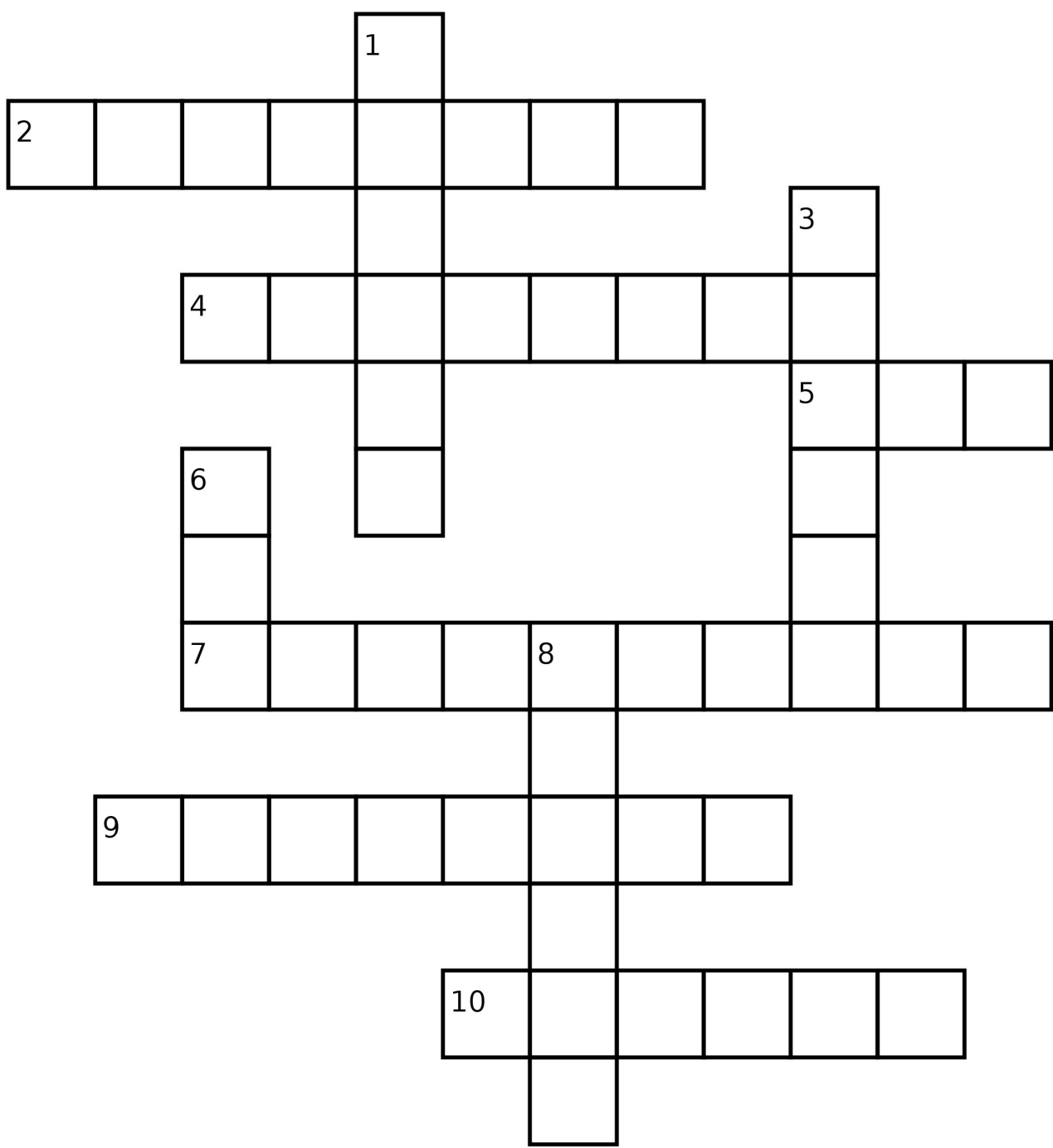


Safety Considerations

1. Avoid use when pregnant or breast feeding.
2. Do not drive or operating machinery while intoxicated because of slowed reaction time and impaired short-term memory.
3. Keep cannabis out of the reach of children and animals.
4. If possible, use a safe to lock away cannabis.
5. Educate older children about cannabis, and explain that it should not be touched.
6. Try not to buy cannabis products that look like candy or treats that your children enjoy

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Test Your Knowledge!



Down:

- 1. A feeling of stomach sickness
- 3. A type of cannabis
- 6. Abbreviation for Cannabidiol
- 8. Cannabis product that is eaten

Word Bank:
Dispensary, Flower, THC, Nausea, CBD
Edible, Vaporize, Cannabis, Sativa, Insomnia

Across:

- 2. Popular plant that contains more than 100 compounds
- 4. Being unable to sleep
- 5. Abbreviation for Tetrahydrocannabinol
- 7. A store that can legally sell cannabis products
- 9. An alternative to smoking
- 10. Hairy or sticky parts of the cannabis plant