

# Medical Marijuana

## Antiemetic



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## **Mechanism of therapeutic action:**

- The active component of medical marijuana that is integral to fighting symptoms of epilepsy is cannabidiol, the non-psychoactive part of the plant. Weed is known to alleviate the pain and muscle of multiple sclerosis.
- Chemical in medical marijuana are similar to chemicals the body makes that involved in appetite, memory, movement, and pain. Reduce anxiety, inflammation and relieve pain.
- Yes medical marijuana is a very effective in the treatment of the disease. Studies shows that marijuama is especially effective for patients seeking chronic pain relief.

- Side effects changes mood, lack of conditions, trouble thinking and solving problems, dizziness, and many more.
- The mechanism of action and pharmacokinetics of canals are related mainly to THC and CBD. Both TCH and CBD with cannabinoid receptors CB1 and CB2 of endocannabinoids in the body, THC and CBS enter the body by inhalation or by oral ingestion. Their bioavailability is different in humans.

# HISTORY OF DRUG:

- Sir william brooke o'shaughnessy and irish.
- Medical marijuana was first introduced on 200 BCE.
- Medical marijuana became a therapeutic medicine on the 19th century.



CB1 receptors are primarily found in the brain and central nervous system, and to a lesser extent in other tissues.

Receptors are found on cell surfaces



**THC**  
Tetrahydrocannabinol



**CBD**  
Cannabidiol



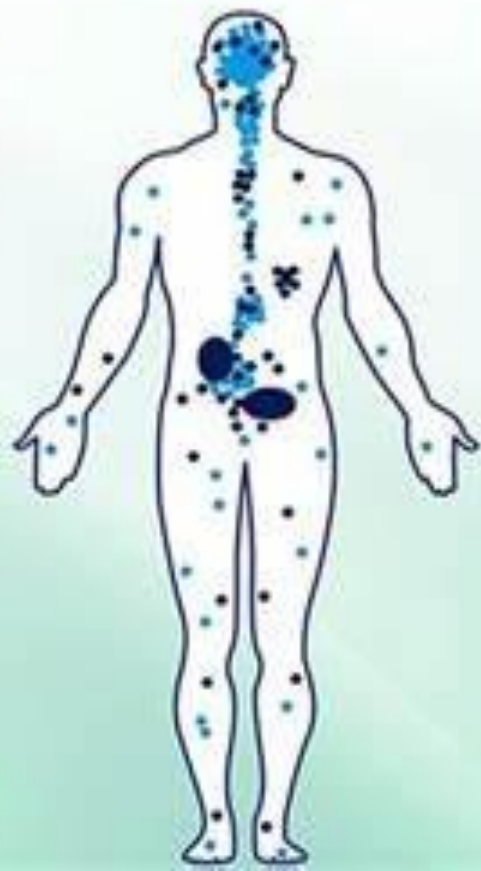
**CBN**  
Cannabinol



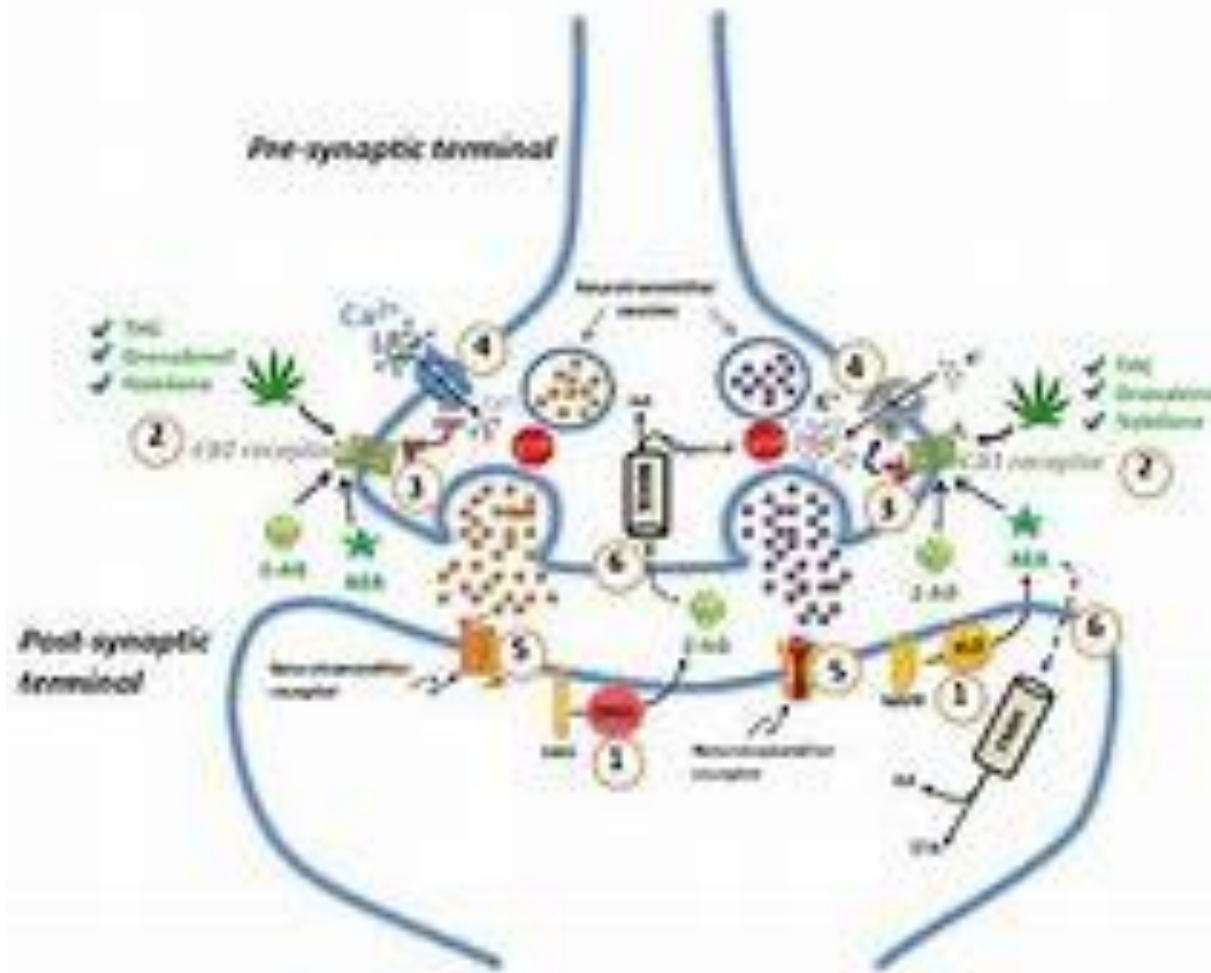
**CB1**  
CBD does not directly "fit" CB1 or CB2 receptors but has powerful indirect effects still being studied.

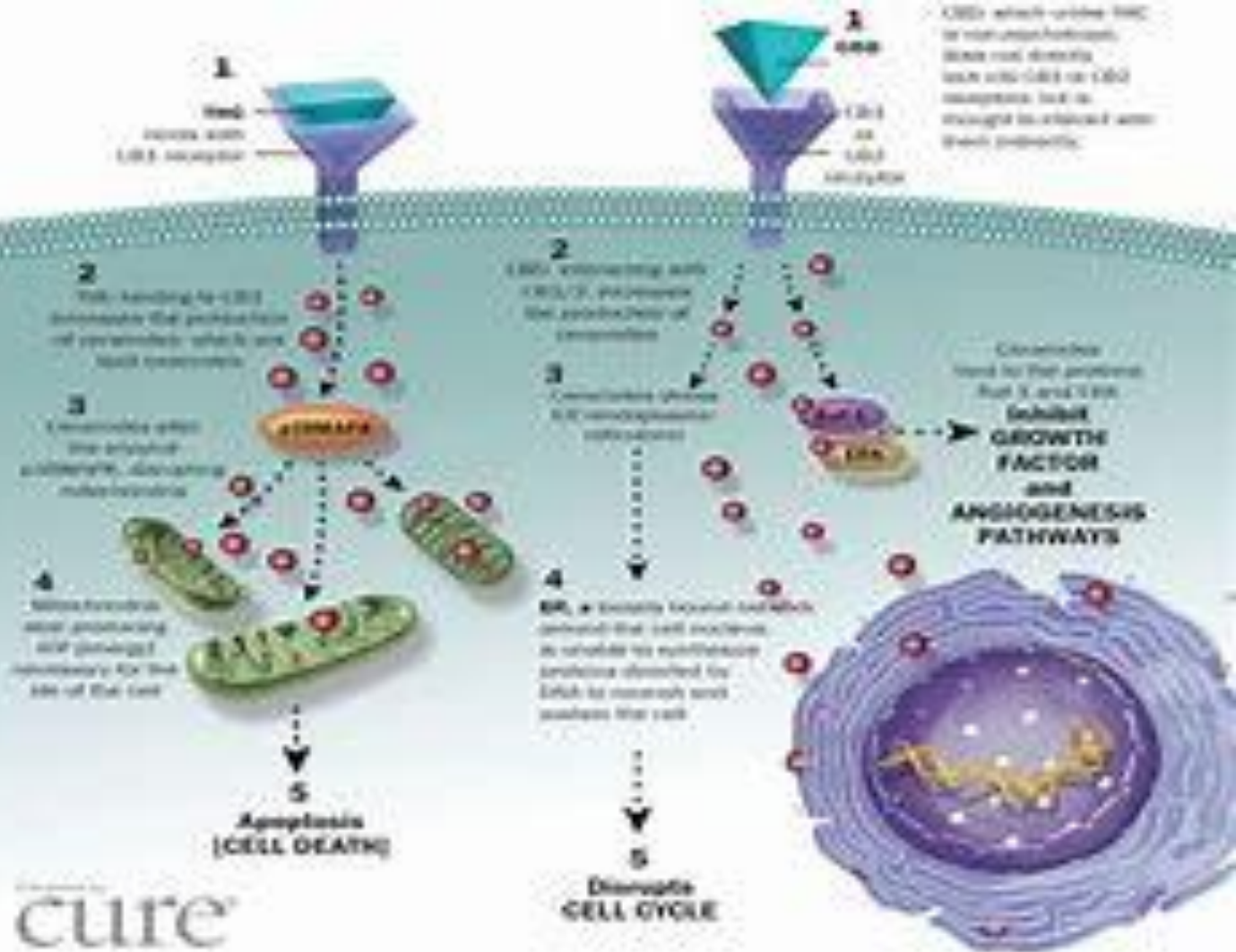


CB2 receptors are mostly in the peripheral organs especially cells associated with the immune system.

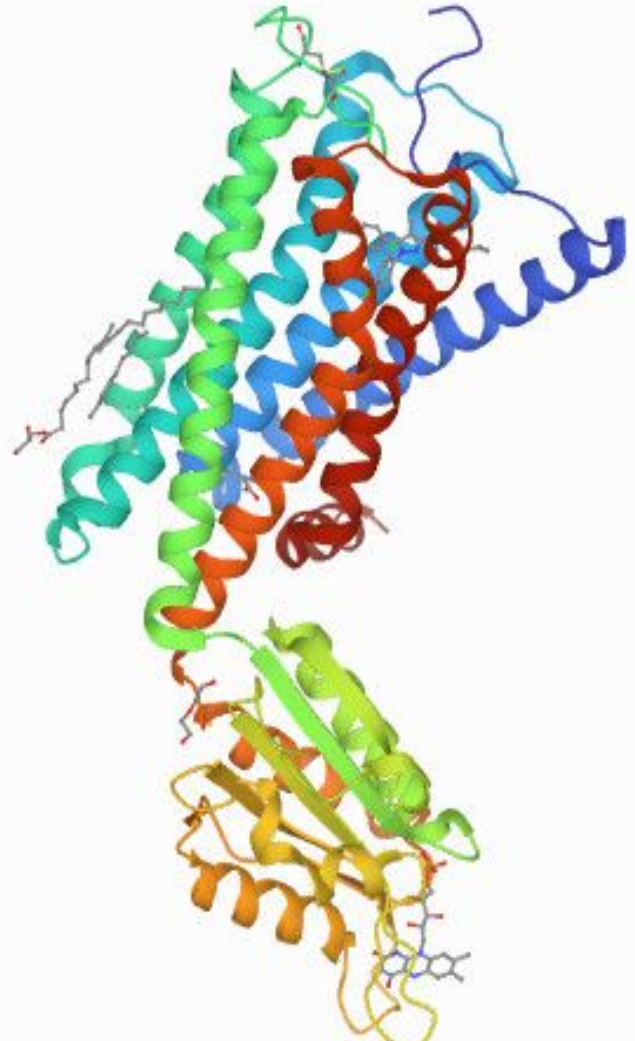


Cytochrome p450 enzymes metabolize cannabinoids in the liver.

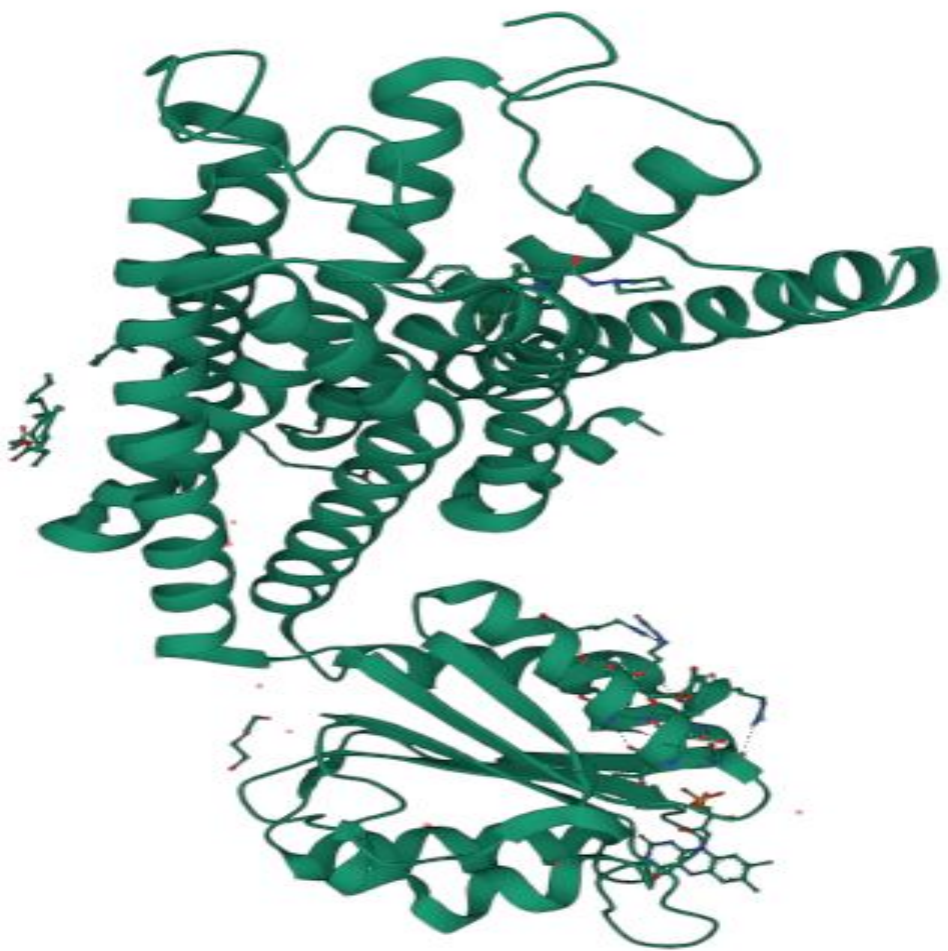


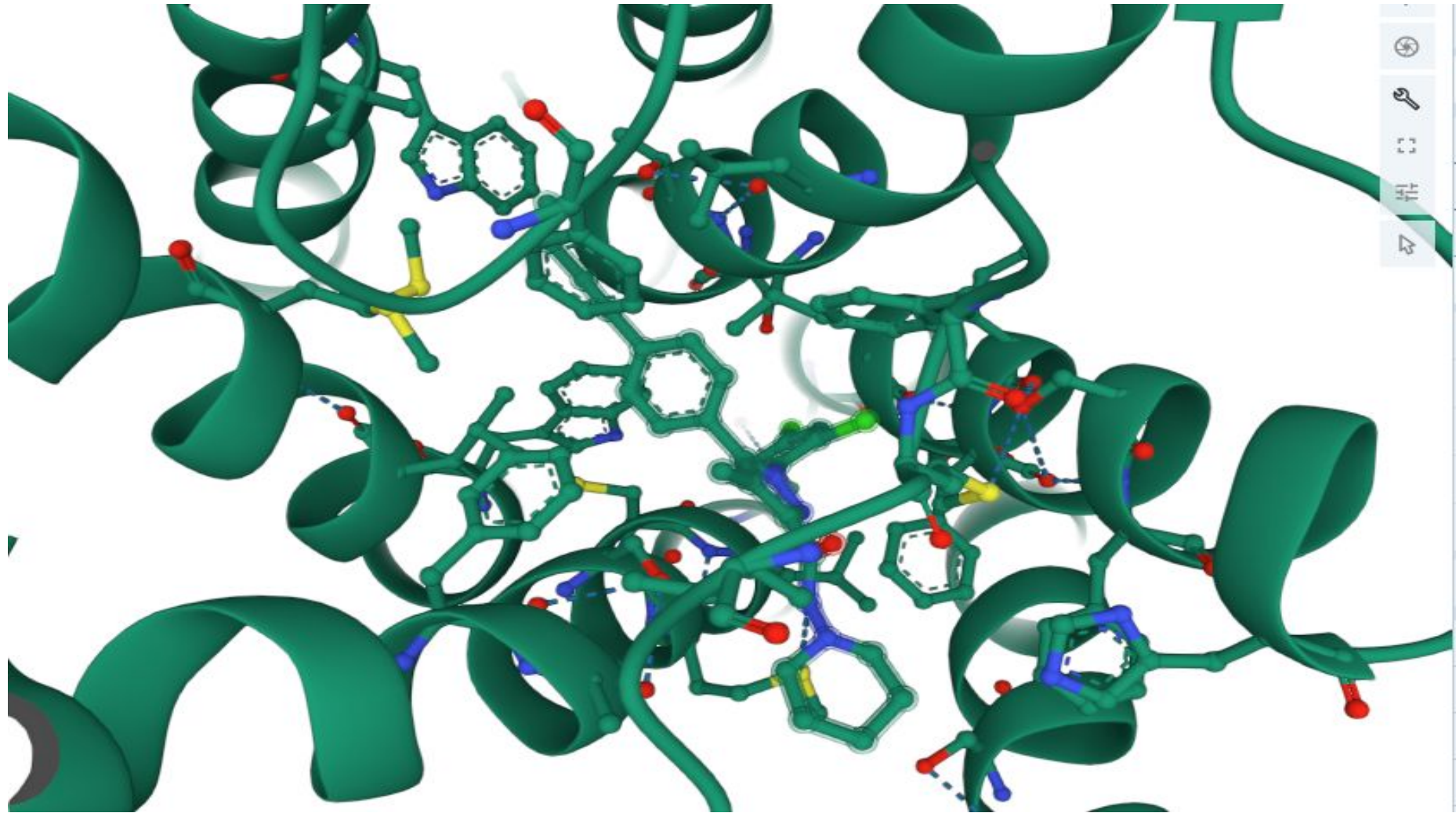


THC is known to be the major psychoactive component of cannabis mediated by activation of the CB 1 receptors in the central nervous system









## **Cost of medical marijuana:**

- The prices of medical marijuana generally ranges from \$5 to \$20 per gram of bud, but there are no guarantees of what you'll pay in a dispensary. Each business sets its pricing parameters which can fluctuate greatly depending in the economy and inflation.
- Medical marijuana is sold yearly to \$50 billions of dollars to \$60 billions of dollars.

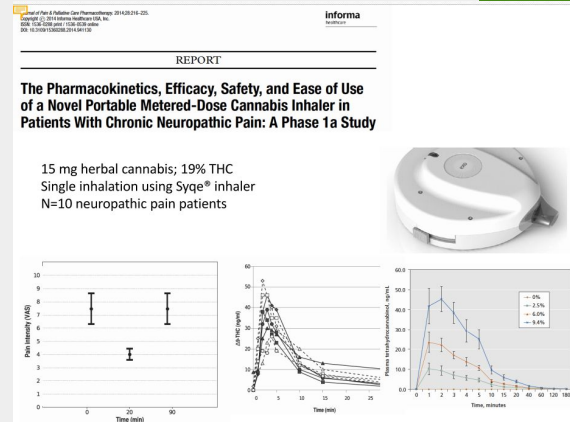
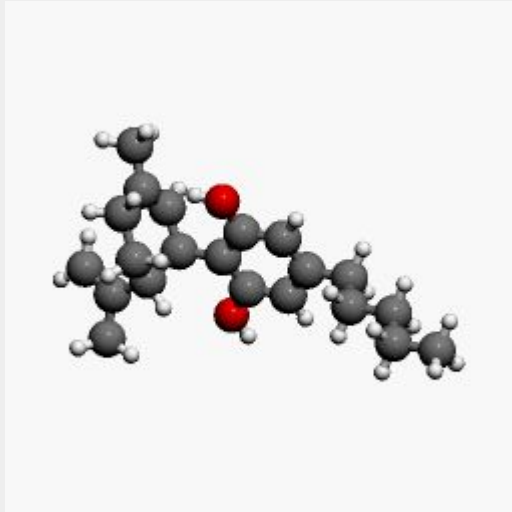
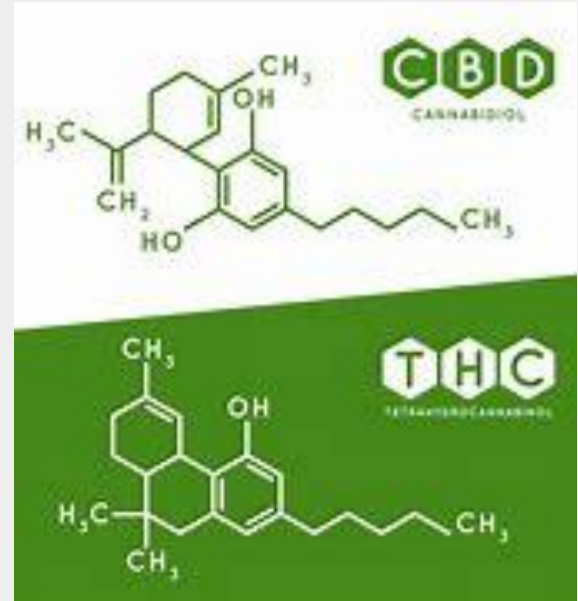
## Questions:

- Other names for medical marijuana <sup>9</sup>-THC, Marinol  
<sup>1</sup>-3,4-*trans*-tetrahydrocannabinol.
- CAS Registry: 1972-08-03



# Chemical structure of marijuana

3D chemical structure medical marijuana



# RESEARCH

- In the U.S., decades-long attempts to reconcile illicit cannabis use to induce intoxication with its potential to help people feeling pain and discomfort**
- U.S. Supreme Court, which has decided that it is up to the federal government not the state to permit patient access to legal marijuana.**

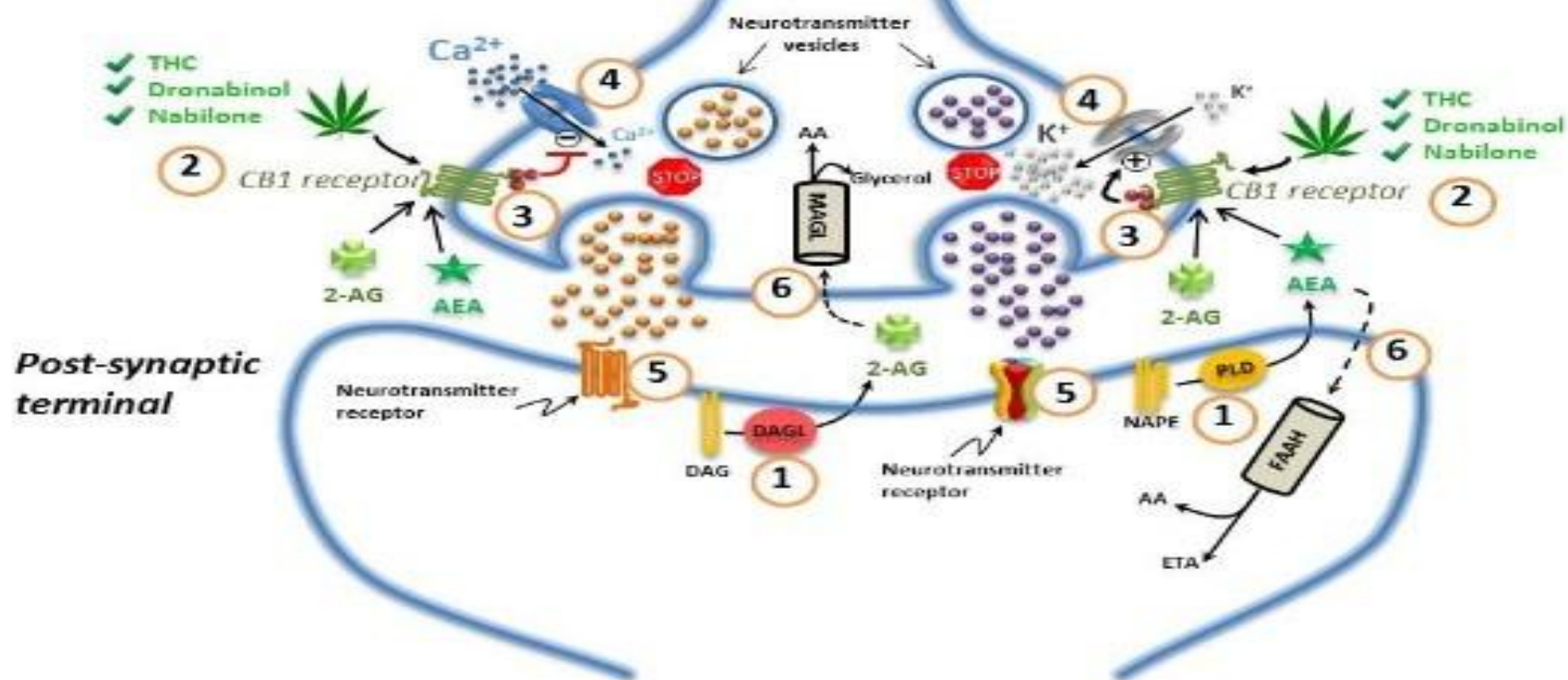


Medical Marijuana is a term for derivatives of the cannabis sativa plant that are used to ease symptoms cause by certain medical conditions. Medical Marijuana is also known as medical cannabis.



As a result, using marijuana causes impaired thinking and interferes with a person's ability to learn and perform complicated tasks. THC also disrupts functioning of the cerebellum and basal ganglia, brain areas that regulate balance, posture, coordination, and reaction time.

**Pre-synaptic terminal**



<http://pubsapp.acs.org/cen/coverstory/83/8325/8325marijuana.html>

<https://www.fda.gov/news-events/public-health-focus/fda-and-cannabis-research-and-drug-approval-process>

<https://www.health.harvard.edu/blog/medical-marijuana-2018011513085>