# The difference between THC and CBD

## What is THC

Cannabis also known as Marijuana, THC, etc. has several effects on the brain. For one, it alters the levels of chemicals in the brain, which can have a positive or negative effect on cognition and memory. It’s also been shown to increase the production of endocannabinoids, which are chemicals that help to regulate mood and feelings.

Although cannabis, marijuana, and THC are often used interchangeably, they don't mean the same thing.

* The word “cannabis” refers to all products derived from the plant Cannabis Sativa
* Marijuana refers to products of the plant Cannabis Sativa that contain substantial amounts of THC.
* THC is a tetrahydrocannabinol that is the main cannabinoid in Marijuana, also known as “the stuff that makes you high” in other words THC is responsible for Cannabises psychological effects

### Consumption and usage stats of THC

18% of Americans used it at least once, and 3 out of 10 people have developed a cannabis use disorder (a disorder where you are unable to stop the consumption of Cannabis and even the thought can cause anxiety withdrawal). In the United States of America, cannabis is legal for recreational use in 17 states in the USA.

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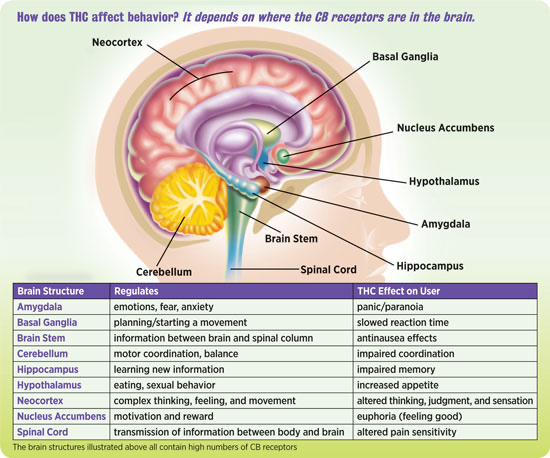
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Marijuana can be ingested Inhaled or consumed as a part of oil food or drink, edible cannabis are getting more and more popular in the USA and Canada where smoking is unpopular and stigmatized and in Europe the most popular method is by smoking (joint, bong etc.)

### The effects of THC on our brain

THC affects a balancing system in our brain called the endocannabinoid system, which is there to control a lot of critical functions in our bodies. This system is also known as ECS system and is a vast network of chemical network in our brains and bodies and works like a balance. In our brain, the CBI receptors, which outnumber many types of other receptors in the brain, act like traffic cops to control the levels and activity of most other neurotransmitters (messaging system of a neuron). To stimulate the CDI receptors, our body produces endocannabinoids.

When THC, which has a similar structure as an endocannabinoid, is introduced to our body, it overwhelms the ECS and throws the body and brain out of symphony. This means that the brain has difficulties controlling different functions like memory, coping with Stress or Anxiety, etc.



### The effects on sleep of THC

With some general facts about THC, we start with the effects on the sleep when using THC.

Cannabis can increase the duration of sleep and make it seem easier to fall asleep. It can also reduce the number of disturbances during sleeping (awakening, etc.) and reduces the time of REM sleep, which results in less dreaming.

When consuming THC for a time, afterwards something like a hangover occurs, where the dreaming is affected. People have reported having a lot more dreams after stopping the regular consumption of THC, as if the brain is catching up dreams.

While consuming THC, Memory and Anxiety can also be influenced because of the lack of REM.

In studies, self-reports have stated that the consumption of THC improves sleep quality, but lab studies often show the opposite.

In addition, marijuana can reduce the symptoms of REM sleep disorder and help people with insomnia get a better night’s sleep.

## What is CBD?

Cannabidiol (CBD) oil obtained by prescription is regarded as a successful seizure treatment. To learn about the other advantages and safety of CBD, more research is necessary.

Chemically speaking, marijuana contains CBD. Tetrahydrocannabinol (THC), the psychoactive component of marijuana that causes a high, is absent from CBD. The most common form of CBD is oil, but it is also offered as an extract, a vaporized liquid, and a capsule made of oil. Among the various CBD-infused items accessible online are foods, beverages, and cosmetics.

Epidiolex, a prescription oil, is the only CBD product currently recognized by the Food and Drug Administration. It is authorized to treat two different forms of epilepsy. State regulations on the usage of CBD differ, aside from Epidiolex. Although a variety of illnesses, including as Parkinson's disease, schizophrenia, diabetes, multiple sclerosis, and anxiety are being treated with CBD, there is still no evidence to support the drug's therapeutic effects.

### What are the effects of CBD ?

The neurological system is calmed by CBD. Because CBD has an impact on the serotonin pathway, it can also affect mood. Results vary from person to person and are impacted by the product kind and dosage.

### What risks does the consumption of CBD carry?

CBD can have side effects, including dry mouth, diarrhea, decreased appetite, tiredness, and lethargy, even though it is frequently well tolerated. Additionally, other medication you are taking, such blood thinners, may interact with CBD.

The unpredictability of the amount and purity of CBD in goods is another cause for worry. More than a quarter of the CBD products tested in a recent study of 84 online-purchased CBD products contained less CBD than claimed. THC was also discovered in 18 different goods.

### How can CBD help with sleep disorders?

Research on CBD's impact on sleep disturbances is still in its early stages. Some users of CBD for chronic pain claim that it helps them sleep better. It is not yet known whether the pain alleviation helps these people sleep better, or if CBD has a direct impact on their sleep.

Positive results are suggested by other preliminary investigations on CBD and sleep disturbances. However, not everyone gets the same advantages of CBD use for sleep, and different amounts may have various outcomes. According to research, high dosages of CBD are sedative, whereas low amounts of CBD are energizing. Differences in experience might also be linked to the dosage and delivery mechanism of CBD. To fully comprehend CBD as a therapeutic for sleep disorders, more study is required.

### Anxiety and CBD

Anxiety can lead to poor sleep quality, insufficient sleep, and sleep disorders even though it is not a sleep disorder in and of itself. Early research suggests that CBD can be utilized to treat anxiety-related diseases, since it relaxes the nervous system. According to one study, almost 80% of participants who took CBD to treat their anxiety had a reduction in anxiety after a month. More than 65% of individuals reported an improvement in their sleep at first, after which the outcomes varied.

### Insomnia and CBD

People who have insomnia have trouble going to sleep or staying asleep at night. The capacity to concentrate, mood, and daily wakefulness are all impacted by this disease. People with insomnia may have anxiety about getting little sleep because of their history of having trouble sleeping, which can worsen their insomnia at night26.

It is hypothesized that CBD may aid in lowering the anxiety related to sleeplessness, given the possible benefits of CBD treatment for anxiety. A fresh pilot study27 examining the effects of CBD and THC in people with officially diagnosed insomnia is also in progress. The study's findings will shed further light on how CBD affects sleeplessness.

# The difference between CBD and THC

Scientifically speaking the two chemicals impact different receptors in the brain, therefore they have different effects, one example is that CBD does not have the psychoactive effects THC has, in other words, it does not get you high.

Both chemicals have similar structures to the natural endocannabinoids, but the molecules are arranged differently which causes the different effects.

Also in the potential benefits differences become clear, THC can be helpful for conditions such as:

- Glaucoma

- Insomnia

- Nausea; it may help alleviate nausea caused by cancer treatment

- Pain associated with conditions such as arthritis, fibromyalgia, and migraine headaches

- Poor appetite; including appetite problems caused by cancer treatment

- Tremors

and CBD can be helpful with:

- Anxiety

- Depression

- Inflammation

- Migraines

- Post-traumatic stress disorder (PTSD)

- Seizures

One thing both substances have in common is the pain relief, CBD is more for the long-term effectiveness with helping remove inflammation, and THC has more immediate results.

Another thing is the legality of THC and CBD, in Luxembourg the consumption, acquisition, carrying, possession of weed is illegal and can result in a fine up to €2.500. For more information on this topic, visit this site: <https://police.public.lu/en/legislation/stupefiants.html> CBD instead is not considered as narcotic and has been legalized as medical cannabis in 2018.

# Sources

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