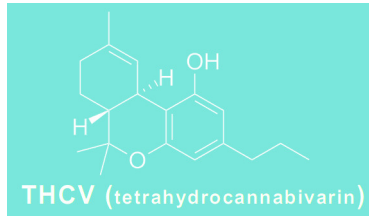


# THCV Research



## Abstract

Study of the THCv (tetrahydrocannabivarin) cannabinoid. Researchers have described that THCv is a relative to THC. Although one of the least studied cannabinoids, researchers have begun to take notice and more information means about the opportunities for THCv in medical marijuana.

THC and THCv are two components in marijuana that are similar on the molecular level. Both are found in different amounts in different varieties of cannabinoids. Over the years, THC won fame as a cannabinoid that is highly sought after because of its ability to cause intense and many medical applications. But what makes THCv (tetrahydrocannabivarin) suitable for medical or recreational cannabis?

## THCV Defined

THCV (tetrahydrocannabivarin) a cannabinoid (active chemical) found in medical marijuana that is seen especially in certain tropical cannabis climates and cultivar. THCv has been less studied than THC or CBD.

This does not mean that THCv is not important, however. All cannabinoids have their own importance (all of which is not yet known). For example, when cannabinoids are combined the own individual cannabinoid effects changes, making some effects feel more subtle than others.

## THCV Science

Researchers defined the "Big Six" cannabinoids which all start as CBGA (cannabigerolic acid). As marijuana plant grows, the synthesis of CBGA in THCA CBDA, or CBCA occurs respectively. These are well-known acid precursors that transform into the cannabinoids THC, CBD, CBC, etc.

Not so with THCv. It starts life as CBGVA (cannabigerovarin acid). As CBGVA is a pre-

cursor to THCVA, CBDVA, CBCVA while some cannabinoids remain as CBGVA. How does THCVA (tetrahydrocannabivarin acid) turn into THCv? This is done by decarboxylation.

The decarboxylation takes place when marijuana is heated (and to a lesser degree, when cured). Some people decarboxylate their marijuana flower on the baking sheet in the oven, while others immediately decarboxylation of smoke or vaping process.

When a cannabinoid is decarboxylated, it is pharmacologically active. For example, THCA does not make users feel high, but it is decarboxylated and transformed into THC, which gives a strong psychoactive high when it is consumed. THCv is thought to play a role in the type of effects produce in combination with THC.

## **THCV and the endocannabinoid system**

Cannabinoids act by interacting with cannabinoid receptors in the brain and body. Compounds such as THCv, THC, CBD and other chemicals mimic our natural endocannabinoid system to stimulate these receptors or accomplish such effects as relieve nausea and vomiting, increase or suppression of appetite or soothing pain.

Over the years, many marijuana users have noticed that they often another result of using traditional whole plant cannabis compared to the use of drugs based on cannabinoids. Researchers are beginning to confirm that as a main cannabinoid, individual effects are different if they are isolated, and they work together to increase the impact of others.

This means that if a large role in the overall impact of marijuana and medical services in combination with other minor cannabinoids such as THCv may react together.

## **Decarboxylation of THCv in cannabis**

The decarboxylated marijuana is now considered to be pharmacologically active once put through the “decarbed” process.

THC causes a psychoactive high in the brain, making it the best known and sought cannabinoids for recreational users of marijuana. THCv is very similar to THC in the name and molecular structure, which of course begs the question how does THCv affect your high?

The answer is not simple. Cannabinoids act in interaction with receptors in the body. THC acts as an agonist of CB1, which gives users the high feeling. THCv is found as less of an amount compared to THC. However, anecdotal evidence from many growers of cannabis in tropical locations report the higher THCv content attributing to such effects as increased energy, alertness and a clear high. Whether or not this is the result of

THCV in combination with THC or simply THCV alone is not yet certain.

The dose of THCV changes the psychoactivity of the responding endocannabinoid system, and the picture changes. Larger amounts of THCV act as agonists of CB1, wherein the non-psychoactive cannabinoids can affect CB1 receptors that work as audible noise connectors. The THCV tip comes faster than THC, but not for so long. It is said that THCV is a high stimulant, leaving the mind clear while still feeling “stoned”.

Small amounts THCV is seen as non-psychoactive, but in high doses, it provides an immediate effect and high energetic feeling.

## **Medical applications of THCV**

Other effects of THCV may not be visible when used in addition to the whole cannabinoid family. In its concentrated form THCV has great medical potential. Here are some of the ways this is being investigated.

### **THCV for Appetite?**

THCV was promoted for its appetite suppressant qualities with some marijuana varieties. It is unclear to what extent it is an appetite suppressant when used in the form of the entire endocannabinoid system. Studies are underway to see if THCV concentrate potentially have as a weight loss drug.

### **THCV for Diabetes?**

The researchers also found that THCV can be effective for diabetes. In studies in mice, reduces the insulin resistance and helps to regulate blood sugar. THCV causes an increase in energy consumption and reduced glucose intolerance, encouraged label associated with obesity, giving researchers a potential new treatment for diabetes.

### **THCV for Parkinson's disease?**

THCV has antioxidant properties and to activate the CB2 receptor, whereas clearing the CB1 receptors. Scientists believe that THCV is a promising treatment for Parkinson's disease because reducing symptoms such as tremors and damage caused delay degeneration of the brain.

### **THCV for Inflammation and pain?**

Another advantage of THCV ability to activate the CB2 receptor has been the ability to calm the inflammation. Pending further investigation, it can make a good potential for anti-inflammatory treatment for many painful symptoms and diseases.

### **THCV for bone growth?**

Researchers have focused on cannabinoids found in smaller concentrations, such as THCV, to see what role they can play in the healing of bone fractures and treatment of diseases such as osteoporosis. THCV, has shown to possibly aid in promoting the recruitment of mesenchymal stem cells in the bone marrow resting to force. In other words, THCV may help to build bones.

### **THCV Medical Cannabis?**

THCV was investigated for its potential as an appetite suppressant medication for diabetes, Parkinson's disease and more medical use cases.

### **THCV and THC: similarities and differences**

THCV and THC sound nearly the same, leading to some confusion concerning the two cannabinoids. While they have some things in common, the effects of THCV (tetrahydrocannabivarin) and THC (tetrahydrocannabinol) are actually quite different.

### **THCV and THC agreements**

Their molecular structures appear somewhat similar.

Both are phytocannabinoids.

This means that they are both cannabinoids and both are derived from the cannabis plant. Cannabinoids influence receptors in the human body together to mimic natural effects produced by the body's endocannabinoid system and the chemicals it releases. THC, for example made of the same receptors as anandamide, a natural antidepressant and analgesic.

THCV and THC both come after the carboxylic acid has been transformed in the chemical structures (THCVA and THCA). They lose their carboxylic acids (and A at the end of his name), when exposed to heat and thus are decarboxylated.

## Differences of THC to THCV

They come from different parents.

Some of the best known cannabinoids (THC, CBD, etc.) come from CBGA synthesis in acid form (THCA, CBDA, etc.). Meanwhile THCV begins as CBGVA then THCVA and once “decarbed” becomes THCV.

They affect appetite different.

THC is considered a cannabinoid that stimulates the appetite. In contrast, THCV is thought to reduce the appetite stimulation properties in cannabis.

THCV is hard to find in large quantities.

Most strains of marijuana on the market will be significant amounts of THC, if such amounts ranging from a few percent above the level of the twenties. THCV, meanwhile, is typically found in very small quantities. Many South African Sativa and Thai strains have higher levels of THCV, but still only a small percentage of THC and CBD, which may attribute to their “racy”, “speedy” effects.

THCV is usually found in very small amounts in most strains of cannabis. Appearing especially in tropical sativa varieties.

## THCV Research Conclusions

THCV is thought to provide a stimulating psychoactive effect, especially when in combination with THC. Tetrahydrocannabivarin (THCV) may be discovered to play a more important role than once known in the field of medical marijuana treatments.

Researchers are preparing for further analysis of THCV cannabinoids and their effects both individually and in combination with other cannabinoids present in cannabis.

### References

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