

## Does CBD help with cancer?

Medical cannabis has been legal in Germany for a while now and is also being prescribed by doctors more often. In addition, there is the CBD hype, which has now also taken Germany by storm.

The cannabinoid is said to relieve pain and have an antidepressant effect. But also in cancer research one deals more and more with the active ingredient cannabidiol.

Thus, there are enough reasons why cancer patients should also look into CBD. But unfortunately, the level of information is still very low, while the need for information is very high. What can CBD do for cancer? We have taken a closer look at the current studies.

### What is CBD?

First, a brief explanation of CBD. Cannabidiol (CBD) belongs to the active ingredients of the cannabis plant - the cannabinoids. Because of its intoxicating effect, THC is far better known.

However, these two active ingredients must not be confused with each other under any circumstances. CBD does not cause a state of intoxication and does not make you "high". In addition, the safety profile of CBD is generally considered good according to the WHO.

Nevertheless, reports have recently emerged that CBD in very high doses can cause liver damage. Likewise, some studies and researchers are also looking into the benefits of the cannabinoid, which are said to be helpful for many different diseases.

The exact modes of action of CBD are currently being studied more intensively. Nevertheless, it can be stated that the active ingredient can have an antidepressant, anti-inflammatory and also pain-relieving effect.

### How can CBD help with cancer?

Although the study situation is still quite thin and can certainly not be generally applied to every situation, some research already shows promising effects of the cannabidiol. These need to be further investigated in the coming time and confirmed in subsequent add-on studies.

suggest CBD may inhibit the growth of leukemia cells, cervical breast and prostate cancer cells. However, some of these studies have not been conducted on humans.

Of particular interest, however, are those studies in which cancer cell death and metastasis were observed after CBD ingestion. Thus, the cannabinoid could be used to trigger cell death (apoptosis) of the diseased cells.

It is also suspected that CBD suppresses and inhibits angiogenesis. This could prevent the formation of new blood vessels and the docking of existing ones, thus depriving cancer cells of their nutritional basis.

## **Studies on CBD in cancer**

But what do the experts say? We present important and interesting reports from current science.

A particularly significant study is a report by English scientists from Winchester Hant and London. They investigated the effect of synthetic CBD on cancer in humans.

The result showed: CBD could have an effect on cancer cells and improve the condition of patients. 119 patients, most of them with metastases, participated in this study. A synthetic CBD in oil form (5% concentrate) was administered. One drop of the oil was approximately equivalent to 1 mg of synthetic CBD.

Daily, the study participants received an average of 10 mg of CBD. However, the exact dose was also dependent on the status of the disease and the individual.

The CBD oil was used by the cancer patients for at least 6 months. However, some continued to take it afterwards.

In the follow-up it was found that in some patients the metastases decreased and the spread of cancer cells was at least slowed down.

In a few subjects, however, no effect was observed at all. Overall, an effect was observed in 92% of the patients. There were no side effects worth mentioning.

However, the doctors also had to accept setbacks. Despite treatment with CBD, 27 patients died during the study. So about 23% of all participants.

The authors are nevertheless optimistic and believe that CBD could be a potential treatment option for people with breast cancer or glioblastoma. However, further studies (especially clinical ones) are still needed.

A study using both THC and CBD was also observed to inhibit the growth of glioblastomas. The more malignant the tumor, the more cannabinoid receptors it produces. So it stands to reason that cannabinoids such as THC and CBD would then be able to treat it more strongly through interactions with the receptors.

This result was also confirmed in another study. However, it seems that a mixture of CBD and THC would be especially beneficial in this type of cancer.

Thus, study participants of the GW Pharmaceuticals group received a spray with 27 mg / ml of THC and 25 mg / ml of CBD for a certain period of time. Another group of patients, however, was administered only the drug TMZ.

While the TMZ group had a 1-year survival rate of 44%, the spray group had a 1-year survival rate of 83%. A very promising result.

There is also eventful research in the area of apoptosis. It looks like CBD can manipulate cancer cells to induce premature cell death.

One study shows that the not yet decarboxylated form of CBD - CBDA acid - also interacts with receptors in the cell nucleus and could thus provoke apoptosis.

Of course, this raises the legitimate question of whether CBD does not then also cause the other, healthy cells to die. However, as studies on mice and rats show, CBD even protects normal cells from apoptosis. Apparently, cannabinoids only kill tumor cells.

### **CBD for common ailments of cancer patients.**

Unfortunately, cancer is very multifaceted. It's not only the disease itself that the patients suffer from, there are also some additional side effects that reduce the quality of life of cancer patients. And could CBD help there as well?

Accompanying symptoms of CBD: sleep problems, anxiety, depression, severe pain

Especially the relief of pain is due to the anti-inflammatory effect of CBD. Both the cancer and the treatment can be very painful.

It is not uncommon for patients to suffer from inflammation, pressure on internal organs, or damage to nerves. For this reason, CBD could be interesting for patients with terminal cancer.

But CBD could also be a conceivable alternative to already known drugs with stronger side effects for depression.

As science states, CBD could increase serotonin and glutamate release in the body, causing an increased feeling of happiness.

The anti-anxiety effect can be helpful in acute anxiety and calm patients down a bit. Anxiety is often a reason why it is difficult to fall asleep at night.

With the help of cannabidiol, however, the body could be somewhat relaxed. According to one report, THC can even help with nightmares.

And what about nausea and vomiting? This is where CBDA acid could come into play. Studies show that this acid can be a suitable antidote to severe nausea.

However, a mixture of CBD, CBDA and THC is even more effective. This compound could be used especially in chemotherapy.

So if CBD really could at least mitigate and alleviate all these side effects, the cannabinoid would be an interesting substance for people with terminal cancer, providing a little more quality of life.

### **Which side effects can occur when taking CBD?**

Although CBD is generally considered safe, side effects may still occur. However, compared to other substances, these are relatively minor.

The following side-effects might be observed: Nausea, fatigue, drowsiness, low blood pressure, High intraocular pressure, dry mouth

In addition, CBD could also inhibit appetite. Unfortunately, this is relatively bad in cancer treatment. Because cancer patients often suffer from loss of appetite anyway.

However, it is essential to ensure that there is no emaciation or very large weight loss. Otherwise there is a risk of cancer cachexia.

It is also important to know that there may well be interactions between CBD and other medications. Exemplary drugs are Omeprazol, Warfarin or Diclofenac. It is therefore recommended to discuss CBD intake in advance with a doctor or pharmacist.

## **CBD in combination with other treatments**

CBD certainly seems to be a promising anti-cancer agent. But what about other cancer treatments? Can CBD be combined with them?

It would be possible, for example, to supplement chemotherapy with the intake of CBD. This approach has already been explored in more detail by the GW Pharmaceuticals group.

In a first study, patients with a brain tumor were given the drug Sativex, which contains CBD in addition to THC, whereas another group of patients received only a placebo. The results were promising. The survival rate was significantly improved.

The combination of CBD with radiotherapy was also investigated in 2017. This study also focused on glioblastoma, a malignant brain tumor.

The study showed that CBD was able to weaken the cancer cells, making them more susceptible to radiation therapy.

In this way, cannabinoids such as CBD and THC could also increase the effectiveness of chemotherapy.

They weaken the repair mechanism of a cancer cell, making it much more susceptible to aggressive chemotherapy.

## **Pharmaceuticals with cannabis**

In the meantime, there are pharmaceuticals that also contain cannabis as an ingredient. An example would be the drug Sativex, which was also examined in various studies on its behavior with cancer.

Known drugs that can be issued by the doctor are also still Dronabinol or Nabilon. They are used to treat cancer-related side effects.

To alleviate pain, cannabis is now also increasingly sold on prescription to special patients in Germany.

Meanwhile, a welcome sign for cancer patients is coming from America, where regulatory authorities are now allowing shortened approval procedures for drugs to treat glioblastomas. According to experts, new drugs could be on the market as early as 2023.

## **CBD as prevention for cancer?**

Some people are wondering if they can or even should use cannabis or CBD to prevent cancer. On this topic, the National Cancer Institute (NCI) from the USA reviewed and evaluated some studies.

Unfortunately, the results are somewhat confusing and inconsistent. For example, one study with over 60,000 participants found that cannabis use did not increase the risk of cancer that exists due to tobacco use.

At the same time, however, the same study found that men who have smoked cannabis have an increased risk of prostate cancer than men who have never smoked.

Thus, it seems as if cannabis smoke is still carcinogenic. However, the situation is not entirely straightforward when it comes to inhaling marijuana.

This is because ingesting CBD extract does not expose the body to the same carcinogens as smoking. However, more studies are probably needed to provide a more accurate answer to the role of CBD in preventing cancer.

This is because in some studies, the risk of lung cancer increased from both smoking and inhaling cannabis.

## **Which CBD products could be suitable for cancer patients?**

Whether you are suffering from cancer or any other disease, you should use high-quality products. For example, full-spectrum extracts are recommended, where you can benefit from other cannabinoids or terpenes in addition to the cannabidiol and thus get an entourage effect.

Some of the studies presented showed that it can be quite useful to take a mixture of CBD and THC. However, THC is not yet released in Germany.

In over-the-counter CBD products, a maximum of 0.2% THC may be present. This means that there is not much of the THC effect left.

So if you want to have THC, you have to get a prescription from a doctor, which you can then redeem at a pharmacy.

Medical cannabis is already legal in Germany. Unfortunately, the health insurance companies are still reluctant to cover the costs.

In general, it is certainly advisable to consult your doctor in advance about whether you should purchase a CBD product, and if so, which one. In general, it can be said that especially CBD oils or CBD liquids would be suitable.

Depending on the symptoms, however, one can also resort to other products. A soothing hemp tea, for example, is very suitable before falling asleep or for anxiety.

### **Application of CBD products**

If you want to use CBD oil for cancer, you should put the oily drops sublingually under your tongue. In this way, the hemp oil acts the fastest and is absorbed into the oral mucosa after only a few seconds.

A disadvantage of CBD oil for cancer, however, is that not everyone likes the taste of hemp oil. This can be quite bitter and sometimes even a little spicy.

You can also use a CBD liquid which comes into the vaporizer or in an e-cigarette and is vaporized. Here, too, a faster absorption through the mucous membranes is guaranteed. However, one should be careful if one already has inflammations and injuries in the oral cavity.

Particularly practical is also hemp tea. This can be drunk well before going to bed in case of sleep problems. Just brew the CBD tea and let it steep for a while.

### **The dosage of CBD products in cancer**

There is no single dosage recommendation of CBD in cancer. Because every person is different and reacts differently to CBD. Basically, however, you do not have to worry about overdosing.

Some are of the opinion that a too low dose would not achieve anything (except a placebo effect), but we think that you should not overdo it right away. Rather, you should approach the CBD products slowly and seriously and find the right dosage in consultation with a doctor or pharmacist.

Depending on the ailment and degree of disease, however, a certain number of drops (for CBD oil) is already helpful. Thus, the dosage would also be much easier.

For example, one drop of a 5 percent CBD oil corresponds to 1.7 mg CBD, whereas one drop of a 10 percent oil is already 5 mg CBD.

### **CBD for animals with cancer**

Animals like dogs and cats can get cancer just as a human can. CBD interacts with the endocannabinoid system and plays an important role in many different body processes. This is also shown by all the studies around CBD.

The animals also have such an endocannabinoid system, which is why the substance CBD could also achieve the same or at least similar effects in them.

Accordingly, CBD oils could also help the animals with their diseases or simply alleviate accompanying symptoms of cancer such as pain, anxiety, nausea, etc..

For the application of CBD in animals with cancer also speaks that some studies on mice or rats were conducted and here also positive effects could be found.

## **Conclusion**

Unfortunately, there are still too few conclusive studies to really say that CBD could be a good alternative to the guilt medicine of cancer. Nevertheless, the study reports already show promising results that should and must be built upon.

There is definitely evidence that CBD can be used for cancer and can also alleviate accompanying symptoms or side effects of cancer.

So it would be conceivable for patients to regain some quality of life from always being in pain, having severe anxiety, or just being nauseous.

Even though there is at least a small chance that CBD could help kill cancer cells or make chemotherapy and radiation more effective, more research should be done.

Unfortunately, many scientists are still put off by the difficult status of cannabis in society and fear damage to their good reputation.