

# CBD and Parkinson's Disease

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## ***Studies show that CBD can help symptoms of Parkinson's disease.***

Marijuana is often associated with the well-known psychoactive component THC. CBD is a non-psychoactive compound in marijuana that is known for its many medical benefits.

Current research suggests that CBD may be able to help treat symptoms of Parkinson's disease, such as movement and sleep problems.

Here, we examine how CBD can help patients with Parkinson's disease, and how it may work alongside THC.

## **Can CBD Treat Parkinson's Disease?**



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Research on treating Parkinson's disease with CBD is still in its early stages. However, recent evidence has emerged suggesting CBD can benefit patients living with the disease.

CBD has been shown to have neuroprotective and antipsychotic effects. It may also improve sleep disturbances and quality of life in Parkinson's patients.

A [2005 study](#) published in the journal *Neurobiology of Disease* was one of the earliest studies to show that CBD may help Parkinson's disease. The researchers found that CBD had neuroprotective effects in animal models of Parkinson's.

Since then, more research on CBD and Parkinson's has emerged. Overall, studies indicate that CBD may be able to improve many aspects of Parkinson's disease, including movement impairments, psychosis, sleep disturbances, and quality of life.

## Effects of CBD on Parkinson's Disease



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### Movement Dysfunctions

One of the most characteristic symptoms of Parkinson's disease is dystonia, or disordered movement. Movement symptoms result from a loss of dopamine-producing cells in the brain.

A [2017 study](#) determined CBD might help the movement impairments in Parkinson's by interacting with a receptor known as GPR6.

The researchers found that CBD blocks this receptor, causing dopamine levels to increase. They believe that some of the effects of CBD observed in patients with Parkinson's can be explained by its action on this receptor.

## Neuroprotection

A [2005 study](#) found that CBD has neuroprotective effects on dopamine-producing cells in mice. It was suggested that these effects may be due to the antioxidant or anti-inflammatory properties of CBD.

Researchers exposed the animals to a chemical toxin that kills dopamine-producing brain cells, and then administered CBD. They found that CBD reduced the extent of the damage.

This study suggests that CBD may be able to protect human brains from the progressive dopamine neuron loss seen in Parkinson's disease.

The same group of researchers published a [2007 study](#) looking at when CBD was most effective at protecting neurons.

They discovered CBD was most effective if it was administered immediately after exposure to the toxin. When CBD was given a week after the toxin was applied, they found it didn't have the same beneficial effects.

## Psychosis

Psychosis, or loss of touch with reality, is a lesser-known and difficult to manage symptom of Parkinson's disease.

In a [2009 trial](#) published by the Journal of Psychopharmacology, CBD was given to six patients with Parkinson's for 4 weeks with doses beginning at 150 mg/day. The patients in the trial showed remarkable improvements in their psychotic symptoms when treated with CBD. The researchers concluded that CBD was not only effective, but it was also safe and well-tolerated.

## Quality of Life

A [2014 trial](#) involving 21 patients found that CBD could improve measures of quality of life for patients with Parkinson's disease.

The study found that daily doses of 75 and 300 mg of CBD did not have any significant effects on motor dysfunction or neurodegeneration, but quality of life was found to be significantly improved.

This effect may be explained by the antidepressant, anxiolytic, antipsychotic and sedative effects of CBD.

## Sleep Disturbances

Parkinson's disease is associated with a very unusual form of sleep disturbance. The disturbances are collectively referred to as REM sleep behaviour disorder.

During REM sleep, our bodies lose muscle tone which prevents us from physically acting out our dreams in bed.

However, in REM sleep behaviour disorder, the body no longer loses muscle tone, causing patients to act out their dreams. This may involve punching, pushing, yelling and swearing while sleeping.

In a [series](#) of case studies, doctors observed improvements in patients who used CBD. They found that doses of 75-300 mg of CBD taken daily could reduce or eliminate entirely any symptoms of REM sleep behaviour disorder.

## THC vs. CBD For Parkinson's Disease



*(Photo: Shutterstock)*

CBD shows promise in treating symptoms of Parkinson's disease. However, it is not the only cannabinoid that might help. Researchers are also looking at whether THC can treat Parkinson's as well.

A [2014 study](#) found that movement dysfunction in Parkinson's patients improved when using THC-rich marijuana. These improvements were found in overall movement deficiencies and specific motor dysfunctions like tremor, rigidity and slowed movements.

The study also noted that these patients showed improvements in sleep and pain.

This suggests that Parkinson's patients may benefit from using a combination of cannabinoids. THC and CBD, when used together, may help target a wider range of Parkinson's symptoms, and may offer a better overall improvement than either cannabinoid used alone.

## **Drawbacks of THC**

THC is a psychoactive cannabinoid, and its mind-altering effects may not be well-tolerated by some patients. These effects can include paranoia, anxiety and panic attacks.

THC is also known to increase the risk of psychosis. This could potentially aggravate symptoms of psychosis in patients with Parkinson's disease.

THC can also cause an increase in heart rate and is associated with an increased risk of heart attack. This is particularly problematic as Parkinson's disease is more common in elderly patients, who are also at greater risk of having cardiovascular issues.

## **Summary**

Current evidence suggests that CBD can treat some symptoms of Parkinson's disease, including movement impairments, sleep disturbances, and psychosis.

THC also shows promise as a treatment for Parkinson's disease. However, CBD is better-studied, has fewer side effects, and has an overall better safety profile.

As the elderly population increases, treatment for diseases like Parkinson's are needed for more and more patients. Overall, cannabinoids like CBD have a promising future in the treatment of Parkinson's disease.