



The Great British CBD Trend

Beyond the pseudo-science and scaremongering

While research has been stymied by decades of legal restrictions, relaxation of regulations has led to an explosion of studies and, more importantly, to the confirmation or discovery of numerous health benefits.



Contents

Introduction	3
What is CBD oil?	4
How is CBD oil made?	4
What are the claimed benefits of CBD oil?	5
Are these claims really backed by science?	10
Can we trust claims made by CBD oil products?	11
Conclusion	12



Introduction

While the history of cannabis itself goes back centuries, the recorded use of cannabidiol (CBD) is much more recent. Produced using a complex process which isolates CBD in order for it to be extracted from the cannabis plant, it was not discovered and utilised until the 20th century. Indeed, the first recorded study of CBD took place in Minnesota in 1940, with its stereochemistry (the spatial arrangement of its atoms) finally determined in 1963.

Sadly, due to prohibition in both the UK and US, the medicinal value of cannabis and, specifically, CBD was dramatically hindered due to the hurdles that researchers were required to jump. However, as the 20th century drew to a close, the restrictions on such studies started to soften and studies began to emerge, picking up pace with the decriminalisation and legalisation of cannabis in various states in the US.

As a result of the ever-growing number of drug trials, there is a mounting body of evidence that indicates several conditions have been treated beneficially by CBD oil in one way or another.



What is CBD oil?

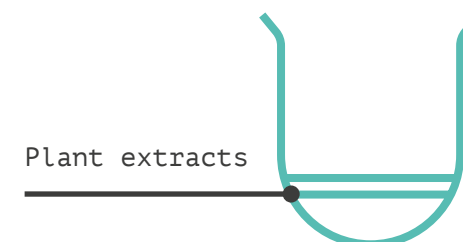
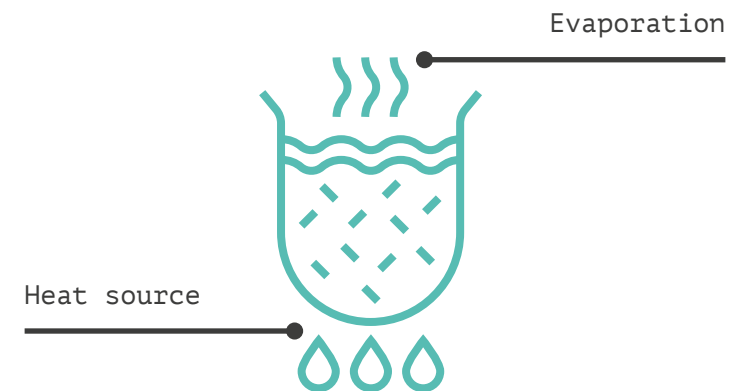
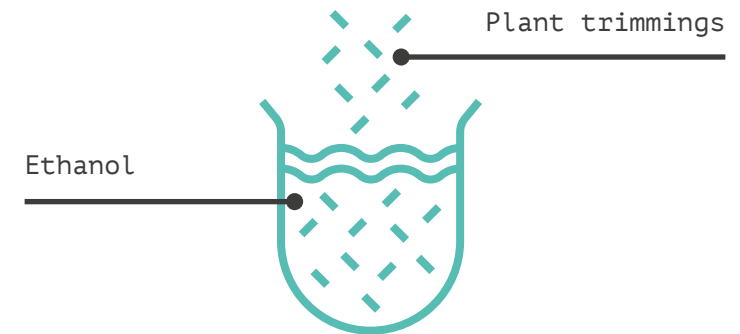
CBD, or cannabidiol oil, is a naturally occurring constituent of cannabis and industrial hemp - one of more than 80 cannabidiol compounds found in cannabis and hemp. Whereas the better known THC (tetrahydrocannabinol) is the psychoactive component, CBD oil, when isolated, has been recognised as possessing calming, anti-inflammatory and pain-relieving properties due to its interaction with the CB-1 (and, to a lesser extent, CB-2) receptor in the brain.

How is CBD oil made?

Most of us that studied chemistry, even just to high-school level, will be familiar with one of the most common processes through which CBD oil can be produced, and that's distillation.

Distillation, which is the same process by which alcohol is made and oil is refined, relies on the varying boiling points of each part to separate them from the main solution. This is achieved by heating the raw cannabis oil to a set temperature, thereby isolating the CBD oil.

In this regard, CBD oil is prepared in the same way as most essential oils – with the major difference being that CBD oil has proven efficacy for many of the claims made about it.



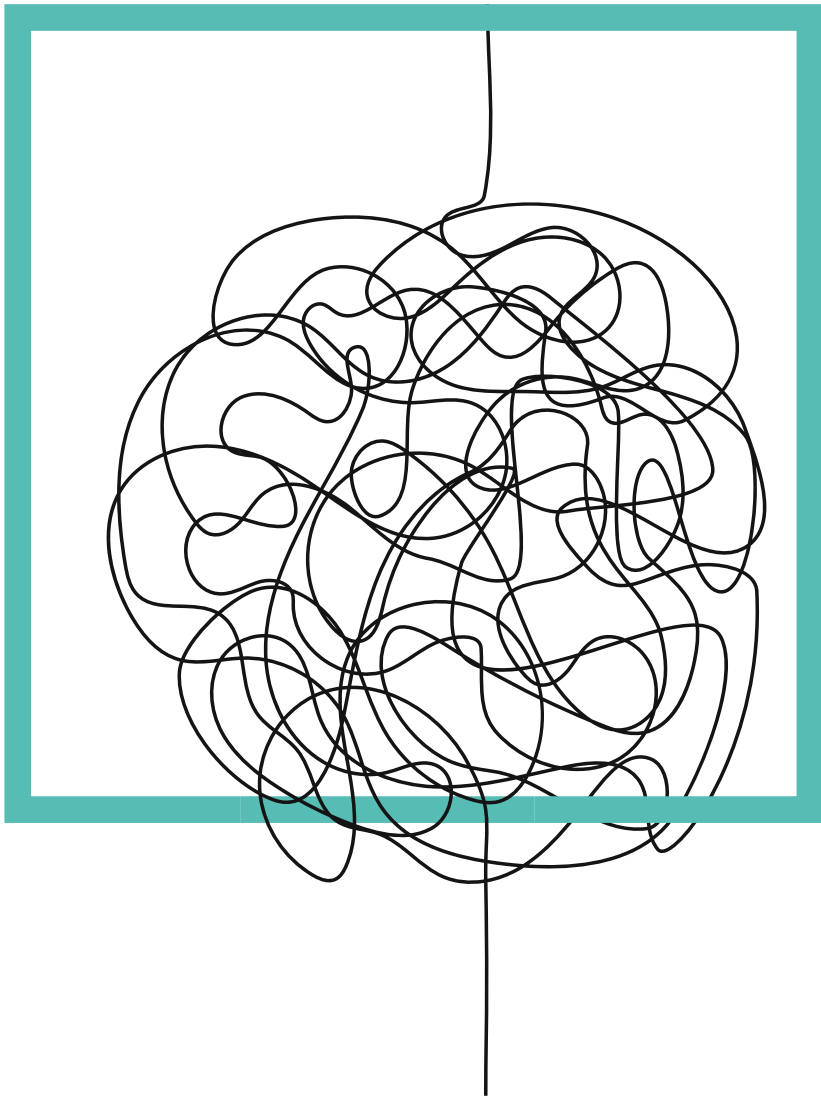


What are the claimed benefits of CBD oil?

The claimed benefits of CBD oil are almost as numerous as the number of companies selling a variety of the product. However, while the science is still incomplete for many of these claims (with some thought to be potentially based on dangerously misleading pseudo-science), there is a solid body of evidence for efficacy in multiple use cases and for a variety of conditions broad enough to be both exciting and impressive, even without the misinformation and exaggeration.

As with any such product, we must state the need to seek medical advice before using CBD oil. In addition, the following is a brief overview of the current state of research and should not be taken as medical advice or treatment suggestions.





Anxiety and insomnia

There is an interesting study of clinical use of CBD and paediatric anxiety and insomnia [here](#), which shows evidence of efficacy above and beyond traditional treatments. However, this is one of a growing number of studies dealing with the potential of CBD to treat paediatric anxiety and insomnia – as well as similar treatment of anxiety and insomnia in adults. For example – [in a more recent case series](#), the conclusion states the following:

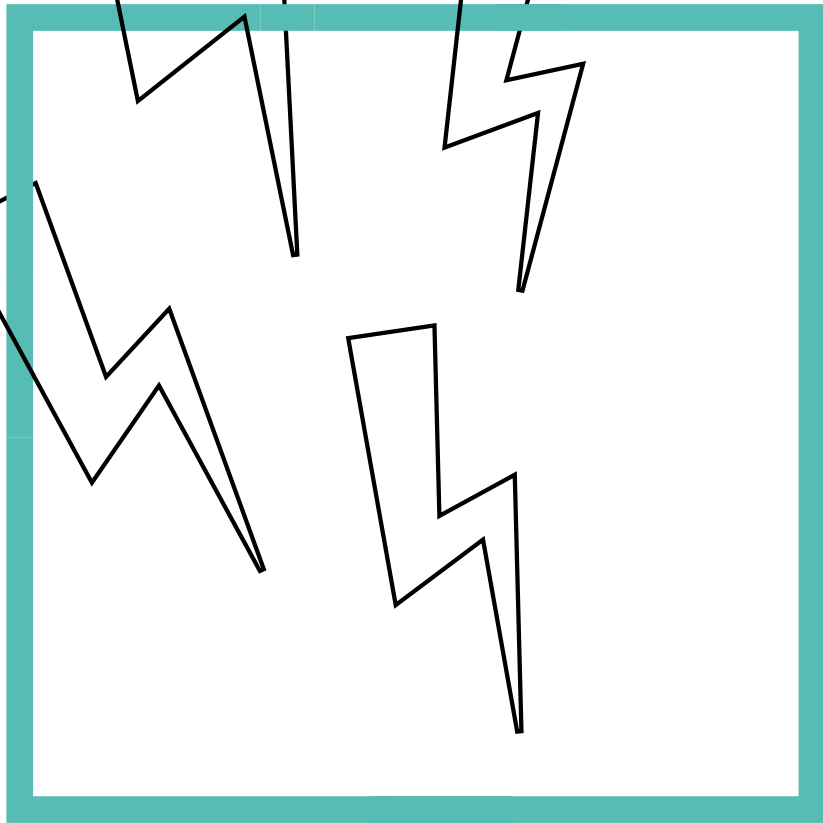
In this evaluation, CBD appears to be better tolerated than routine psychiatric medications. Furthermore, CBD displays promise as a tool for reducing anxiety in clinical populations.



Post Traumatic Stress Disorder (PTSD)

As with the majority of claims around CBD, claims about its effectiveness with regard to PTSD are still in their infancy – predominantly because of past legislative hindrance to study. However, as more research is undertaken, such as [this study by Rafael M. Bitencourt and Reinaldo N. Takahashi](#), clear signs of its usefulness in the treatment of PTSD are being found. According to Bitencourt and Takahashi:

The effects of CBD on the different stages of aversive memory processing make this compound a candidate pharmacological adjunct to psychological therapies for PTSD. CBD also shows an action profile with fewer side effects than the pharmacological therapy currently used to treat this type of disorder. In addition, even at high doses, CBD does not show the anxiogenic profile of compounds that directly activate eCB transmission.

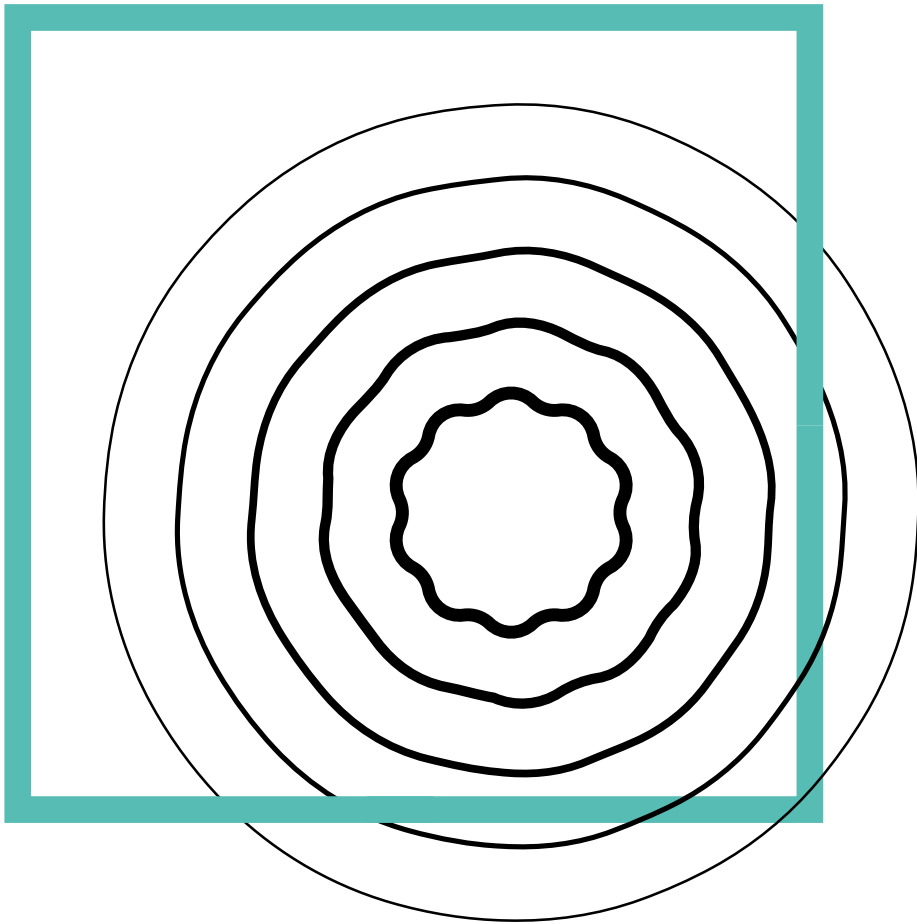


Pain relief

Pain relief is likely to be one of the areas that the majority of people will have heard talk of in relation to CBD oil, and with good reason. Of all the areas of study, CBD oil's use as an analgesic is roughly on par with its use as an anti-inflammatory as far as a brief review of the academic output seems to suggest. However, it is no great surprise as CBD oil's effect on the CB-1 receptor makes use as an analgesic a likely option due to the CB-1 receptor's primary location in the nervous system. While, as in each of these cases, the science cannot be called conclusive due to an insufficiency of studies in total, [a 2016 article in The Journal of Pain](#) was able to determine that:



Cannabinoids show promise as therapeutic agents, particularly as analgesics



Anti-inflammation

The effects of CBD oil have been enough to convince plenty of medical practitioners of its usefulness as an anti-inflammatory – and again, this is likely due to its relationship with the cannabinoid receptors; specifically, in this instance, the CB-2 receptor, which is located within the immune system. [A study by Gallily, Yekhtin, & Hanuš, \(2015\)](#) was able to go as far as to state in its conclusion:

[We] recommend standardized plant extract of the Cannabis clone 202 for treatment of various inflammatory conditions

Are these claims really backed by science?

At the moment, CBD oil falls, somewhat unfortunately, at a kind of midway point between science and pseudo-science. As a natural remedy, it is a favourite of naturopaths and new age medical practitioners, but equally it has been a surprise star of pharmacological research – especially in the last couple of decades.

The effect of this, unfortunately, is a garbling of messages around the uses and usefulness of CBD derivative products and an explosion of products with little to no active ingredient, but with all of the proven claims and many more besides in their literature.

Despite all this, the clinical efficacy of CBD oil has been determined in numerous areas, and there are dozens of studies in progress and planning that will further examine the potential of CBD as a treatment for a variety of conditions and disorders.

As things stand, it can reasonably be stated that there is plenty of hard science pointing to the usefulness of CBD oil in a variety of situations. In addition to the areas of research listed in the previous section, there are dozens more that show promise, but on which the science is insufficiently settled for us to offer analysis. While the industry may need to do more to combat the extraordinary claims made by some outliers, there is a lot of extant evidence in support of CBD oil as a treatment, and more will surely follow.





Can we trust claims made by CBD oil products?

Sadly, with the burgeoning popularity of CBD oil there has also been a rise in the sale of snake-oil. For example, [the BBC reported](#) that one product advertised as a CBD product and selling for more than £50, contained 0% of the active ingredient while less than 40% of the products tested contained the levels of CBD oil advertised.

For this reason, the answer must unfortunately be that we cannot trust most claims, and with even the products containing the advertised concentration of CBD oil were unlikely to contain an effective clinical dose. As such, it is imperative that consumers are doing their research before spending their hard earned money in the pursuit of a rare, quality product with medicinal value.

Conclusion

The science is not yet conclusive as far as CBD oil is concerned, but that is not due to the efficacy of the substance itself but to a history of draconian regulations surrounding its study. There are studies happening across the globe on a variety of conditions regarding the use of CBD oil as a treatment and many of them are showing positive results. However, settled science is difficult to achieve and as such we cannot reasonably expect proof of CBD oils efficacy across the board for a number of years.

The important thing to remember for prospective CBD oil users is to seek medical advice and to maintain regular self-checks to look out for both positive and negative effects. The organic nature of CBD oil and its few reported side effects makes it an attractive option for those using other pharmaceuticals to tackle long-standing pain disorders, anxiety and insomnia, but it is nevertheless important to remain vigilant of one's own health and ensure that there are no known problems with other medications.

CBD oil has tremendous potential across a wide range of illnesses and disorders, and we remain optimistic that studies will continue to prove its efficacy, and that we will continue to hear the stories of those that have experienced symptom relief through its use.



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