



Understand the real science of CBD

Discover what CBD can really do for you

Recipes for your own oils, topicals, edibles, and treats



Cannabis wellness expert Co-Founder and CPO of Poplar





by Blair Lauren Brown



CBD For Dummies®

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Introduction

Getting high isn't the only reason to dip your toe into hemp or cannabis-derived products. Cannabidiol (CBD), a non-psychoactive compound found in the cannabis plant, has proven to be a powerful medicine for dozens of different ailments. From rheumatoid arthritis to menopause, CBD is proving to be a missing link in formerly dire and nearly untreatable medical circumstances. And less bleak circumstances, like a lack of sexual excitement or lowered libido, are also being investigated as conditions that CBD can remedy. No matter the source of your curiosity, *CBD For Dummies* can help you leap from uninformed consumer to confident and competent CBD advocate.

About This Book

Many people think of themselves as cannabis experts, but their knowledge base may come from faulty sources. Movies like *Pineapple Express* and *How High* create narratives that the plant is dangerous or magical. And your old college roommate who has a friend of a friend who bakes pot cookies probably isn't a top-tier source, either.

This book focuses on the ins and outs of CBD, with its psychedelic cousin THC playing more of a minor role. My goal is to give you a foundation to make informed decisions as a consumer on how to treat ailments (specifically found in Part 3 of this book) and improve your life with the help of CBD. If you're more advanced than a complete newbie, that's great! You'll find some sections to be intuitive or obvious. I also dive into a series of recipes (found in Part 4) so that you can start

using CBD in your home, in formats that are familiar, with recipes for facial products, and others for edible treats for you and even your pets. I hope to also give you new insights into the cannabis industry, relevant legislation, medicinal history and applications, and even recreational mediums.

Note: As you build your repertoire of cannabis knowledge, remember that none of the advice in this book can replace a consultation with a medical professional. Additionally, although I explore many different delivery methods, the CBD vehicle that will give you the best experience is completely up to you. You're not a carbon copy, and CBD isn't one-size-fits-all.

Foolish Assumptions

I've made a few assumptions about you as I've written this book:

- » You want to try CBD and are curious about alternative medicines. You know that you prefer a more naturopathic approach to wellness and are hoping to transition from traditional pills and potions to a more holistic solution.
- » You recognize that CBD is a huge industry with many different opinions and options on how to get started. You're willing to take the time to tailor your CBD treatment method to your lifestyle and other unique points of consideration.
- » You're willing to form your own opinions, using diligent research and soliciting credible consultations. You know that the only expert on your body is you and accept that no rules apply everywhere without exception.

» You realize that all that glitters isn't gold. You recognize that, as in any industry, some CBD companies are more reputable or trustworthy than others.

Icons Used in This Book

Throughout the book, I use a handful of icons to point out various types of information. Here's what they are and what they mean:



next to important items on your grocery list. It marks areas that are great reference points to commit to memory.



interesting but not essential. If you're in a hurry or into speed-reading, you can skip paragraphs marked with this icon and still be just fine.



The Tip icon is for actionable blurbs of advice and sometimes brand or product recommendations.



warning This one is essentially a "Slippery When Wet" road sign. Use this icon to avoid unnecessary pitfalls.

Beyond the Book

The Cheat Sheet is an awesome way to explore bite-sized information on some of the most important points about getting acquainted with CBD. This little freebie is definitely worth a gander.

To access this Cheat Sheet, simply go to www.dummies.com and search for "CBD For Dummies Cheat Sheet."

Where to Go from Here

The great thing about this book is that you can start anywhere. Just mosey on over to the table of contents or index to identify your topic of interest and begin reading.

If you're not quite sure what CBD is and why it may positively impact your body in a supplementary form, Chapters 2 and 3 give you a complete overview of CBD and what its functions are.

On the other hand, if you feel like you want to get a sense of how to find the right delivery method for you, go straight to Chapter 7.

On the other hand (you've got three hands, right?), if you want to get started whipping up some customized recipes, your best bet is to visit Part 4.

Whatever the case, please approach the book with a sense of open-mindedness and enjoyment. Remember, you're here to have fun and to get great information. It's go time!

Part 1 Looking into CBD

IN THIS PART ...

Beef up your CBD knowledge, vocabulary, and technique.

Define CBD and become familiar with the different parts of the hemp plant.

Dig into the four pillars of CBD relief and the pros and cons of CBD supplementation.

Investigate the different layers of CBD extraction and the different products it can yield.

Chapter 1

Updating Attitudes toward Cannabis and CBD

IN THIS CHAPTER

- » Separating CBD fact from fiction
- » Trying out a couple of treatment methods
- » Recognizing some of CBD's medical benefits
- » Understanding the history and future of CBD laws and acceptance

CBD is one of hundreds of naturally occurring chemical compounds in the cannabis plant. Because that plant has long had a sordid history in the Western world, CBD carries a perception of danger and illicit behavior. The reality is that CBD offers many potential therapeutic benefits in and of itself without the inebriating, or "high," effects that give cannabis its reputation.

The everyday consumer and even some of the cannacurious find themselves butting up against myths that are a function of the times. In this chapter, I unpack the differences between the different types of cannabis and how CBD got its (not entirely fair) reputation. I also delve into its practical uses and medical benefits, as well as legality issues surrounding CBD. After reading this chapter, you'll become a pro at separating CBD rumors from realities. (For a deeper dive into what CBD actually is, flip to Chapter 2.)

Debunking Myths about CBD

The list of rumors and myths about CBD is long because the cannabis plant is new in Western applications and the research is young. You may have heard that CBD is illegal because it comes from the cannabis plant. Or perhaps you've heard that it comes from hemp, but you're only familiar with hemp as a source of fabric. You may have heard that CBD is a snake oil, made popular only by the placebo effect. On the other hand, maybe you've been told that CBD really can cure it *all*.

<u>Table 1-1</u> provides a quick overview of some common myths surrounding CBD as well as the actual facts. In the following sections, I talk about some of these myths in more detail.

TABLE 1-1 Separating Common CBD Fact from Fiction

Fiction	Fact
CBD is a Schedule 1 narcotic drug, so there is no research.	Formal, government-sanctioned research, as well as a host of anecdotal evidence, does exist. It is also "descheduled."
CBD is snake oil and a scam.	CBD has plenty of legitimate applications.
CBD as an industry is chock-full of discrepancies and is thus unsafe.	CBD hasn't been shown to physically harm anyone.
CBD can cure anything.	CBD has been shown to help some conditions; like anything, results vary.

CURE: A LOADED WORD

The myth of all myths is that CBD can cure anything. *Cure* is a word you don't often hear in any kind of medicine because it implies that whatever caused the symptoms is no longer there. That's a hard threshold to reach. Results inevitably vary from body to body, so claiming a cure is difficult. Anecdotal evidence and the FDA's new approved CBD anti-seizure medicine, Epidiolex, indicate that CBD has provided a lot of relief to a diverse group of people. And as a recognized figure in the space, I have heard of plenty of successful applications of CBD across individuals and with companies developing products.

Understanding where some of the uncertainty about CBD comes from

The CBD molecule is found largely in the cannabis plant. However, new evidence suggests that it also appears in an invasive species of pine tree. Early research suggests that many plants contain a host of other molecules that mimic the functions and properties of CBD.

From a federal standpoint, cannabis containing THC is illegal. *Hemp cannabis*, which contains 0.3 percent or less THC content by dry weight, has been allowed for use with various FDA disclaimers on use practices. CBD is derived from hemp cannabis. (Head to the later section "Looking at the Legality Surrounding CBD" for more on legal specifics.)



REMEMBER CBD used to be lumped in with THC-dominant cannabis as a Schedule 1 narcotic drug. Because of that classification, research was limited to federal institutions (or abroad) — no private studies. So much of the existing research available is limited to the interests of the federal government; relevant information isn't very accessible, leading to the widespread fear that CBD is unsafe.



TECHNICAL CBD was actually isolated and discovered as far back as 1940.

The declassification of hemp cannabis cleared the way for the allowance of CBD in products. Retailers clamored to get their hands on the new "it-girl" ingredient. This frenzy incited a rush to the marketplace with everything from tinctures and balms to CBD-infused pillows. Little regulation on the natural and supplement market in the United States meant few barriers to entry.

As knowledge of CBD's uses as a supplement grew, companies began churning out long lists of claims about its supposed benefits: pain relief, better sleep, reduction of wrinkles, cell turnover — the list goes on. Some of these claims were merely that — claims. Some were and are based on private studies and years of experience. Ultimately, some CBD products may be scams; as with any new industry, companies with little integrity try to make a quick buck.

But it's not all smoke and mirrors. CBD has lots of legitimate uses as natural medicine. Interestingly enough, the United States even holds patents (almost 40, in fact) on cannabis. One of the most acknowledged and talked about is on cannabis as a neuroprotective as well as an anti-inflammatory and antioxidative agent.

HOLDING CBD PRODUCTS TO A HIGHER (DOUBLE) STANDARD

Consumers today are more knowledgeable and empowered in their ingredient knowledge than ever, but they don't necessarily hold all plant-derived ingredients to the same standard. Take tea tree oil. It first came to the Western product market as an antibacterial; soon, it was in everything

from soaps to toothpaste to honey. People took it at face value and consumed it in abundance. Now compare that approach to the hoops consumers want CBD products to jump through. They want to look at certificates of analysis (COAs) and know the location of the farm. I don't know about you, but I don't know exactly where the tea tree in my toothpaste comes from, and I'm an over-the-top kind of principled buyer of products. Most consumers didn't even know what a COA was before the cannabis market opened up. The difference? Tea tree oil doesn't come with the stigma of having been classified as an illicit substance.

CBD is not a cure-all, but neutralizes many difficult symptoms

The early phases of CBD in the consumer marketplace have led to a host of one-size-fits-all forms of CBD. The most common offering is full-spectrum tinctures. Other varieties include capsules, powders, balms, and salves. Some companies are creating very targeted ingredients with CBD, and still others are creating products with CBD and other ingredients designed to address specific conditions.

Research and anecdotal evidence for the many uses of CBD continues to expand. Broad applications showed success in inflammatory relief, and evidence indicates CBD can address topical conditions like eczema, scarring, and acne. Now researchers are testing extra functions such as antimicrobial and antifungal qualities.

More than 50 percent of Americans suffer from chronic pain, sleep, and anxiety conditions, and CBD can help there as well. The reported internal benefits of CBD range from help with chronic and acute pain to stress reduction and relief from depression and sleeplessness. Other applications include gut health, mental fog, arthritis, exercise fatigue, and more. The formal medical uses are limited because of CBD's novelty, but they're showing incredible promise.

The most significant medical applications to date are related to epilepsy and seizures. A pharmaceutical company created the drug Epidiolex, which is designed to treat a severe seizure condition and has been proven to limit the severity, duration, and frequency of condition-related seizures. Researchers are exploring other pharmaceutical uses in more depth, including a host of neurological conditions that have stumped the drug industry and healthcare professionals for generations.



If you don't know what you're treating, quantifying results is hard. In <u>Chapter 7</u>, I cover how to know the difference in form, ingredient, and condition to ensure CBD products you choose can serve your particular needs. <u>Part 3</u> also covers all sorts of ailments and conditions and how CBD may be able to help.

Applying and Ingesting CBD

CBD is not just a one-trick pony, or a one-form pony, for lack of better analogies. That's a common misconception that needs to be corrected. Many people think that the whole-plant form reigns superior for consumption. CBD cannabis flower, the true whole-plant form, is beautiful. The host of plant chemicals contained inside can address a broad spectrum of conditions and side effects. However, it is not the best form of CBD if it is not a form that works for you.



REMEMBER When CBD is processed into an extract, there are varying degrees of so-called purity. The purest form that you could get is CBD-isolate, which contains nothing but pure CBD. When you subscribe to the whole-plant method, isolate is off the table for you. Instead, you will only look at products such as full-spectrum extracts that contain the whole plant. Subscribing to a clinical and impersonal definition of rightness is limiting. The narrow perception of CBD as solely a full-spectrum extract prohibits the perception of its diversity of application and opportunities. Let's not pigeonhole CBD!

Uncovering the right form for you is a bit of an art. And while I go into some of the details of the form factors later in this section, it's helpful to go into a more specific approach to conditions and side-effects and evaluate the "right" form factor from there. As a start, read through this chapter, and if you find you want to jump straight to the deeper information on form factors, hop to Chapter 14, more specifically as they relate to skincare. Chapter 21 offers a broader overview of the "why" coupled with what form.

As an all-natural remedy, CBD has been declared effective as both a topical and ingestible treatment. The condition you're treating ultimately determines the best form to use. A topical application of CBD is best for localized or acute pain, which can be caused by a bonk or a bruise. Examples of topical products include body oils and lotions. Ingestible forms of CBD are best for chronic pain conditions. The following sections break down the basics of topical and ingestible treatments.



REMEMBER New findings have led not only to more sophisticated combinations of CBD but also to adaptations of CBD from its more raw extracts into complex formulations. These cutting-edge creations are versatile and can be topical or ingestible.

Applying CBD to the skin

Topical applications of CBD can treat both external and internal issues. The external treatments don't absorb beyond the top three layers of the skin. These options — ranging from lotions, salves, creams, and balms to oils — are prevalent in both the skincare and the pain markets. The list of benefits here is particularly long. The primary targets are inflammatory skin conditions, including dry skin, itchy irritations, dehydration, and rough patches and cracks. CBD is also an antioxidant and thus is touted for protecting skin from the signs of aging as well as addressing more difficult skin conditions such as eczema, psoriasis, and acne.

Treating internal conditions topically is a little more complicated. The skin is the largest external organ; it serves as a protective barrier that either allows or prevents substances from reaching the bloodstream. Topicals designed to treat external (surface-level) skin conditions don't need to penetrate below the outermost layer of the skin, but to take care of internal complaints, CBD must reach the bloodstream. That's where transdermal agents come in.

Topical applications for internal benefits are known as *transdermal agents* (or *transdermals*). Transdermals require a *penetrating agent* — something that damages the skin in a microirritation. This microirritation allows

the active agents to pass through the skin and into the bloodstream. Think of those pain relief patches that seem to change temperature. The "heat" is the penetrating agent (the cooling is there to mediate the heat sensation). The CBD market has only briefly approached transdermals, but a host of companies offer patches specifically for localized pain.

Eating or ingesting CBD

When choosing an edible/ingestible form of CBD, you have two important considerations:

- » Bioavailability (the amount of a substance that reaches the bloodstream)
- » Onset time (how quickly the CBD takes effect)

Sublingual applications (applied under the tongue) are the fastest-acting and most calibrated of CBD offerings next to smoking. Chewable tablets like mints; gums; and dissolvable strips, tinctures, teas, and oral sprays all fall under the sublingual category because they're in your mouth for a while. And the sublingual oil market is one of the most dominant categories in ingestible CBD.

Sublingual action is made possible through the medicine meeting the mucous membrane under the tongue. The membrane and connective tissue under the tongue contain capillaries (the smallest and largest concentration of blood vessels). On sublingual administration, the medicine dissolves and is absorbed into the bloodstream through the tiny network of blood vessels. The faster the medicine hits the bloodstream, the faster the onset. The least obstacles in the way of the medicine reaching the bloodstream means the largest amount of bioavailability.

Other forms of edibles (like chocolates, candies, or gummies) have the disadvantage of having to travel through the gut for absorption. The problem is that they encounter quite a few warriors (such as stomach acid) along the way, which challenges their bioavailability and onset time. Supplements like capsules and powders, and anything else you may swallow, struggle with the same obstacles. On the flip side, they have the comfort of a more traditional supplement market.

CBD: The New Treatment of Choice?

"Illegal, illicit narcotic banned by the government for over 40 years is now making its way into the hands of the severely ill and having incredible benefits!" I just made that headline up, but it sounds like something you could've read in all the frenzy over CBD since it was declassified in 2018. (See the later section "Looking at the Legality Surrounding CBD" for that move.) CBD has the appeal of an affordable, accessible miracle, but the frenzy is just a fad. For CBD to really have long-term staying power, we need to see maximum benefits and efficacy in the CBD medicine space. That may require a few more years to apply research. We need patient-backed outcome studies to attest to successes in a uniform and repeatable way.

So yes, for now, this is just a fad that requires a lot of work on behalf of the customer for positive outcomes. That or a really good friend, or book, which might be able to provide some guidance to start the process of sorting through the weeds. (No pun intended.)

Providing a natural alternative to Western healthcare

The timing of the legalization of CBD couldn't have been better. In this day and age, people are more and more disillusioned with traditional Western healthcare and are therefore looking for alternative remedies to legitimately heal what ails them. The Western focus tends to treat the symptoms; natural and alternative medicines tend to focus on the whole and the underlying causes or roots of an ailment.

CBD falls into that natural category right now. Its compatibility with the human body is truly remarkable. The introduction of CBD and other cannabinoids addresses a general balance that can potentially systematically ease symptoms caused by a core root condition. It may even address the condition in some cases.

And it's proving to be quite successful for some in the experiential phases of exploring CBD as a personal remedy. As the science and uses evolve, more targeted remedies and more customer education will become available.



REMEMBER The combination of the minimal applicable science and widespread fear about CBD has made way for the general population to take charge of their education about the plant, the chemicals, and what they could be using. This self-empowerment model is unlike anything else the natural health space has seen regarding a single ingredient.

Move over, opiates: Considering CBD for treating pain

One of the more promising areas of study and usage for CBD is pain. The chemical is a nonaddictive alternative to opiates because of its anti-inflammatory action. CBD expedites the body's inflammatory response system and alleviates pain sensations while simultaneously speeding up recovery.

Opiates tend to be a pharmacological tool applied to both acute and chronic pain, but they present more of a problem with the latter. Pain that persists for long periods can be harder to treat because it has perpetual effects on the neurological state. The result: more opiate use over longer durations. This prolonged use comes with a host of side effects, including dependency.



The focus of opiates is pain relief specifically; think of them as a single blade. CBD is more like a multi-tool for pain.

If the end result is relief either way, and one opportunity presents fewer side effects and less risk of dependency, the winner seems clear. All the hows and whys of this are explored in more depth on a condition-by-condition basis in Part 3.

Looking at the Legality Surrounding CBD

CBD is now a legal extract from a hemp plant, so long as no THC is present in the product. (In some cases, 0.3 percent or less THC is acceptable.) The task now is