"... sheds much-needed light on this rapidly evolving field."
- Larry Dossey, MD, author of ONE MIND

The MEDICAL MARIJUANA HANDBOOK

A Patient's Guide to Holistic Healing with Cannabis

Norma Eckroate

I hope you enjoy these free chapters of my book. My desires are to share this information with the entire world – and that cannabis medicine be made available for all!

Please send your friends to my website for more information: www.NormaEckroate.com



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Praise for The Medical Marijuana Handbook

The medical uses of marijuana are changing the lives of thousands of individuals and these applications will continue to expand. Norma Eckroate's *The Medical Marijuana Handbook* sheds much-needed light on this rapidly evolving field.

Larry Dossey, MD, author of ONE MIND: How Our Individual Mind Is Part of a Greater Consciousness and Why It Matters

The Medical Marijuana Handbook provides an in-depth and personal look into one of the leading untapped resources in modern medicine. In her wonderful book, Norma Eckroate provides insights as both a patient and a researcher on the history of cannabis, its benefits and applications, and dosing. She also explains why cannabis is one of the most beneficial medicines available today because of the unique and holistic ways that it heals. I highly recommend this book to anyone who is on a healing journey.

John Hicks, MD, author of The Medicinal Power of Cannabis; Using a Natural Herb to Heal Arthritis, Nausea, Pain, and Other Ailments

The Medical Marijuana Handbook is a must read for anyone who wonders if cannabis might help them. In this excellent book, Norma Eckroate provides us with a layperson's primer on the science behind cannabis. She also explains her own journey with the herb, including her initial reluctance

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to tell anyone she was "using" it and her great surprise at the degree to which it almost immediately quelled her symptoms. This book is chock-full of practical information – and I especially appreciate Eckroate's holistic perspectives and her body-mind-spirit approach.

Ronit Lami, PhD, psychologist, speaker, and contributing author, *Roadmap to Success*

Eckroate tackles the confusion of the newly emerging medical marijuana arena flawlessly. She is concise but thorough, scholarly yet practical. For anyone who is a medical marijuana patient, this book answers all your questions. Eckroate writes from personal experience in a clear and friendly tone. Her heart-felt aim is to leave the reader well-informed and reassured. And she succeeds brilliantly. You will treasure this book.

Joan Bello, author of *The Benefits of Marijuana* and *The Yoga of Marijuana*

In this comprehensive book, Eckroate shares practical knowledge and skillfully addresses the many questions and issues that arise for medical marijuana patients, literally "holding their hands." An accomplished writer and researcher in the alternative health care field, Eckroate also shares her own personal quest as a patient for whom marijuana has vastly improved the quality of her life. Highly recommended for anyone considering the use of this kind herb, with its remarkable healing powers, to treat any medical condition regardless of one's past experience with it.

David Hoye, author of Cannabis Chemotherapy



A Patient's Guide to Holistic Healing with Cannabis

Norma Eckroate

Norma Eckroate

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Norma Eckroate

Dedication

This book is dedicated to the many leading edge pioneers who have worked tirelessly for decades—and, in many cases, sacrificed greatly—to reestablish marijuana as the preeminent healing medicine that it had been for thousands of years. They are generous, intelligent, kind people who have been driven to help those who desperately need this healing herb. I appreciate all of them, including many whose names we will never know. Medical professionals who have led the way include Dr. Lester Grinspoon, Dr. Tod H. Mikuriya, Dr. Uwe Blesching, Dr. Allan Frankel, Dr. Jeffrey C. Raber, and Dr. William Courtney, to name just a few. And many ordinary citizens have played important roles too, including Jack Herer, Rick Simpson, Dennis Peron, "Brownie Mary" Rathbun, and Terence Hallinan, former District Attorney of San Francisco.

I also dedicate this book to the wonderful doctors and other health professionals who have treated me over the last decade or so, especially Dr. Joseph Sciabbarrasi, Dr. Ronald Andiman, Dr. Victoria Wexley, Dr. John Hicks, and Dean Murray. I am extremely appreciative of these kind, caring, and leading edge healers who have helped immensely on my path to greater well-being.

Finally, this book is dedicated to my fellow medical marijuana patients. May you heal, prosper, and be well!

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list them all here. However, I must single out some whose support has been over-the-top. First, I thank Cara Newell, Karen Lorre, and Carilyn Davidson, soul sisters whose love and support have been epic and life-affirming. Also, I am extremely appreciative to the leading edge friends who have played important roles in my cannabis journey. They include Kathy Eldon and Claire Humphrey, wise women who are dedicated to being beneficial presences on this planet and who connected me with others who contributed greatly to this venture; Mary Ann and David Hoye, whose love and support and friendship are boundless and who gave me valuable input on more drafts of this book than I can recall; Patrick Lang and Tina Hulett, kind and loving souls whose comments on drafts were immensely helpful and whose friendship is invaluable; Scotty Meyler, a generous and loving friend who connected me with John Hicks, MD and Betsy Hicks; and, finally the aforementioned Hickses, for their generous supportiveness and input.

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Important



Please Read This First!

Many patients extol the healing and symptom relief of medical marijuana.

However, if you elect to use marijuana as a medicine, it is wise to consider other medicines and treatment options alongside it that might prove effective or, in some cases, even critical to your recovery.

I also urge you to tap into the holistic perspective that body, mind, and spirit are all involved with the healing process.

Start with a VERY SMALL Dose

It is important to start with a very, very, very small dose of cannabis medicine and increase your dosage slowly, UNLESS:

- You are taking one of the cannabis products that do NOT cause a psychoactive "high" or "stoned" feeling;
 OR
- 2) You have developed a tolerance to cannabis through prior use.

If you take too much of a cannabis product that causes psychoactivity, you may have to take a very long nap or even sleep it off for a day or longer. It is strongly advised that you consult a medical marijuana health professional about your product choices and dosage.

A Note About Terminology

It would be helpful if all medical marijuana experts used the exact same terminology; however, that's not the case at this point in time. Here's some clarification on a few terms:

• Is it marijuana or cannabis?

I use the words *marijuana* and *cannabis* interchangeably. Marijuana goes by a number of names, including cannabis and hemp, as well as many slang terms, including weed, pot, grass, hash, Mary Jane, and ganja. Actually, marijuana is a slang term too, since *cannabis* is the scientific name for this herb. Even though I use both words, I use the word cannabis more often since that's the real name.

• Is "hemp" the same as cannabis?

The term *hemp* has different meanings to different people. In some parts of the world, the word *hemp* is often used for strains of cannabis that are medicinal. In the United States, *hemp* generally refers to varieties of the cannabis plant that are used in making nutritional supplements or industrial products, including some cannabis medicines that are made from strains of the plant that are extremely low in THC (tetrahydrocannabinol), the chemical that causes psychoactivity, and high in CBD (cannabidiol), a chemical that is considered to have more healing benefits for some conditions.

• What is "cannabis oil"?

When I refer to *cannabis oil*, I'm referring to concentrated medicinal cannabis products that are manufactured through an extraction process. As I explain in Chapters 3 and 18, different manufacturers use different names for this type of oil.

• What does psychoactivity mean?

Psychoactivity is a term used to describe an alteration in a person's mood or perception when a substance, such as the chemical THC in marijuana, travels through the bloodstream and into the brain. These alterations can include positive experiences, such as euphoric feelings, relaxation, increased alertness, and an altered sense of time and space—or, for those who take extremely high doses or have a very low tolerance level, negative experiences, such as hallucinations, paranoia, anxiety, or impaired memory. As explained in this book, some forms of cannabis are now available that produce *little* or *NO* psychoactivity.

About Chronic Pain

Medical cannabis can help to quell pain, one of the most common symptoms patients deal with. However, did you know that leading edge neuroscientists have found that chronic pain can develop into a disease condition on its own? If you are experiencing long-term pain that is often excruciatingly severe from a condition that should have healed, this new understanding of the reasons for chronic pain—and the solutions for it—might be life-changing for you. Medical marijuana may help in the short-term; however, I urge you to look into this breakthrough understanding in pain as well.

Leading edge doctors and scientists at the forefront of neuroplasticity explain that the extreme level of pain that many patients experience is caused by the "plasticity" of the brain going haywire. As these scientists learn more about the brain's plastic nature—the ability it has to "rewire" itself—they find that many people are suffering from an elevated experience of pain because their brains are literally creating *more* pain. This type of persistent and severe pain, experienced repeatedly over months or years, is called "wind-up pain," "learned pain," or chronic pain syndrome. When this happens, the "pain centers" in the brain can expand and actually hijack surrounding areas—taking over other "cortical real estate"—and causing the elevation in pain.

In a brain that's been hijacked by pain in this way, each of the nine main areas that are designed for processing pain can expand and encompass an area up to five times larger than normal, a fact that is easy to validate with brain scans. When this happens, the areas of the brain that have been hijacked are unable to perform their normal functions as well as they previously did, potentially impacting the ability to deal with tasks such as problem solving, planning, conflict resolution, autobiographical memory, regulating emotions, and relieving pain. Chronic pain often results in a noisy brain, a confused brain, a foggy brain, difficulty with focus and attention, and a constant feeling of being overwhelmed. A "dull" feeling overrides life, and the act of processing a thought or answering a question takes a huge amount of energy. While a patient with this condition may still function fairly well in some of life's arenas, other tasks may feel overwhelming and cause suffering.

The work of experts on this topic has upleveled my life tremendously. I believe anyone who might be dealing with this type of chronic persistent pain will benefit from the leading edge techniques developed by a number of doctors and scientists who are at the forefront of neuroplasticity. I highly suggest you learn more about persistent chronic pain and ways to "take back" any cortical real estate that has been diverted in this way in your own brain by referring to the websites and books of Norman Doidge, MD; Michael H. Moskowitz, MD and his coauthor, Marla D. Golden, DO; Howard Schubiner, MD; John E. Sarno, MD; and Joe Dispenza, DC.

About Product Recommendations

While there are a few exceptions, for the most part, I don't recommend specific products in this book. There are several reasons for this. Each state and jurisdiction around the world that permit the use of medical cannabis has its own regulations. Products that are widely used in one jurisdiction may not be legal in other jurisdictions. Also, I'm hesitant to give product recommendations because a product could provide benefits, such as symptom relief, yet still contain toxins due to being grown on depleted, toxic, or pesticide-laden soil or contain mold, spores, bacteria, viruses, insects, or parasites. Quality control is up to growers and manufacturers who must continually test for both safety and potency. In addition, sometimes a company that produces high-quality products changes management or ownership, which can drastically impact their quality standards.

Norma Eckroate

Introduction

I entered the world of medical marijuana out of desperation. Decades of challenging symptoms from the presumed diagnosis of mild cerebral palsy had beaten me down physically and mentally. Many times, over many years, I thought about how medical marijuana might help. But the craziness around this herb scared me off—until, one day, I finally looked into it. And I'm so glad I did.

In this book I have distilled information that I found helpful in my personal quest to understand the herb, its various forms, and the newly available options in strains and product types. This information is culled and sifted from numerous sources and presented from a layperson's perspective; it is as up-to-date and accurate as possible. My desire is answer your questions, soothe your concerns, and give you the information that you—or a family member or friend—need to better understand it from a holistic perspective so you can effectively use it if that is your choice.

I also share some specifics about the choices I've made, as well as experiences that other patients have shared with me. My focus isn't to give you information on how to roll and smoke a joint, how to use a bong or pipe, recipes for edibles, or how to grow your own marijuana, which is beyond the scope of this book. All of that information is available in books, magazines, and on the Internet. Also, the legalities of medical marijuana are changing so rapidly that getting into those specifics as they relate to countries and states around the world would be fruitless because it would be out of date before this book is published.

Finally, the list of conditions that are now being effectively treated with marijuana is long and exhaustive—and it is constantly being

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added to; therefore, a list would be out-of-date before it was published. And, anyway, it's best if you do your own research to obtain the most current information possible from experts and from other patients for the condition you're dealing with.

Chapter 1

Welcome to the World of Medical Marijuana

When I first became a medical marijuana patient, I was shocked at how effective it was at quelling challenging symptoms that I've dealt with for years. The results I experienced, from the very first day I took it, were dramatic. I had heard lots of great things about medical marijuana over the years, but I really didn't expect it to be *that* beneficial.

As medical cannabis quickly became my lifeline to greater well-being, I realized that I'd been stuck in stereotypes fostered by decades of slanted and incorrect ideas about this gift from Nature. I started to see it as the amazing herb that so many people have long proclaimed it to be. I was curious about why it was so effective for me and disappointed that I hadn't tried it sooner—so I began to research this much-maligned herb. The more I learned about marijuana, the more I understood how complex—and fascinating and unique—it is. I found myself navigating a confusing maze filled with unfamiliar terminology, numerous types of cannabis products to choose from, and very little specific direction on the best options for me.

Marijuana has been called a sacred herb, a superherb, a Goddess herb, a master herb. As with other herbs and plants, it is imbued with compounds that work together synergistically. However, it is distinguished in the world of botanicals because its many wideranging, health-promoting qualities are exceptional. Studies around the world confirm the vast number of beneficial effects that marijuana has on the body and, often, also the mind.

Among the many things I learned is that most of the medicinal strains of cannabis are very different from the strains that recreational users prefer. And that makes sense. The recreational user's goal is generally to achieve the psychoactive "high" or "stoned feeling" that most people associate with it, while—for many medicinal cannabis patients—the high is an unwanted side effect.

My Experience Becoming a Medical Marijuana Patient

As a resident of California with a verified medical need, I could have qualified as a medical marijuana patient when it first became legal in the state in 1996. But, like many others, I hadn't pursued it because the federal government's continued war on this amazing herb scared me away from even trying it. Over those years, many Californians learned the hard way that their state law didn't protect them from seizure of property, arrest and prosecution by the federal government. Many growers, dispensary owners, patients, and parents of patients who are minors ended up in prison, with a criminal record for the rest of their lives. As of this writing, news stories of these "crackdowns," including seizures and arrests, still occur throughout the world, although not nearly as often in some jurisdictions. Thankfully, the situation is improving and cannabis is now available to many patients who have not had access to it in the past.

As I continued to study cannabis as a medicine, I was shocked to learn so much that I didn't know, yet felt I *should* have known. I've written about holistic health and complementary modalities off and on for several decades and thought I knew quite a bit about these topics, including the subject of herbal medicine. My personal health choices have always veered away from pharmaceutical drugs as much

as possible, preferring the most natural and holistic treatments to the potential negative side effects that are part and parcel of most pharmaceuticals. At one point in time, I didn't even have a pain reliever like aspirin in my house because I didn't want to take pharmaceutical drugs unless I felt it was needed as a last resort. Then I came to understand that—just as the side effects of a drug are a stress on the body, so is pain.

I had become much less judgmental about pharmaceutical drugs but continued to be cautious, always preferring the natural route when possible. However, over time, as my health condition became much more challenging, I took more and more over-the-counter pain medications to help me sleep at night and got up during the night to take even more when they wore off. I alternated from one type to another to minimize the potential for negative side effects and my doctor frequently did blood tests since some of these drugs can cause serious liver problems.

Eventually, I was referred to a new specialist, who urged me to take a prescription drug to help me sleep at night. I acquiesced because the constant pain and exhaustion were unrelenting. Over time, the doctor added two more drugs to my nightly regimen, all with the goal of a good night's sleep. Combined, the sleeping pill, painkiller, and muscle relaxant led to better sleep than I had experienced in a long, long time. I knew that my doctor was focused on resolving the problems that caused my need for these drugs—seeing them as a short-term solution while she also treated me for sleep apnea and with trigger point injections for muscle spasms and pain. Nevertheless, my doctor and I were both concerned about the addictive qualities of these pharmaceutical drugs.

As with the over-the-counter pain medications, over time, my body became tolerant to the prescription drugs, which had stopped giving me the results I so desperately desired. It got to the point that every night I would wake up after about three hours and have to take more pills in order to get back to sleep. Then I would be awake for an

hour or two in the middle of the night, waiting for the new round of drugs to kick in so I could get a bit more sleep before morning.

Every attempt I made to go off even one of these drugs made sleep more elusive. Knowing that I had been on these drugs much longer than my doctor wanted, I treaded gently onto the topic of medical marijuana with her, asking her opinion about whether it might help. I greatly respect her for many reasons, including her integrative approach of combining Western medicine with alternative modalities and treatments. But I didn't have any idea how she'd answer this question and was surprised at her immediate and positive response, almost as if it was she who brought up the subject of medical marijuana instead of me.

My doctor smiled and told me she liked the idea and thought medical marijuana might help. She didn't know much about it but she did know another doctor from whom I could get the official state recommendation—and she even had her staff make an appointment with him for me. Her positive response and encouragement helped open the door to this whole new world and, most importantly, opened the door to less pain and better sleep from the very first night I tried it.

I was thrilled that I was able to replace three pharmaceutical drugs with one little capsule of cannabis extract. And that one little capsule worked *better* than the drugs. The more I studied cannabis, the more I realized that to really understand it, I would have to set aside all of the old negative stereotypes that I had heard all of my life. I searched books and numerous websites and queried people who might be "in the know" for the specific information that would help me understand how it works and why it appears to be so much more efficacious in healing than hundreds of other botanicals that are used around the planet. As I share some rather extraordinary facts about this healing herb, I suggest that you may want to rethink it too. Even if you know a lot about marijuana, so much is changing that there's a good chance that you'll find many new-to-you facts on these pages.

Each Strain of Cannabis Has Unique Healing Benefits

I learned that the hundreds of naturally-produced chemical compounds in cannabis bring balance and harmony to all of the body's systems and that each strain of cannabis acts almost like a different medicine. That's because each strain contains a different ratio or proportion of chemicals based upon its unique genetics and the conditions in which it was grown. Also, because each person's body chemistry is different, there's no guarantee that two patients will find the same cannabis product to be equally efficacious—even if they've been given the same diagnosis and are dealing with the same symptoms.

The world of medical marijuana has been evolving at a fast pace—and stories of cannabis patients finding symptom relief from a variety of illnesses show up in the media frequently these days, each bringing with it great elation. It was about two years ago that I first started hearing about the symptom relief that some patients, including desperately sick young children with seizure disorders, experienced with strains that were newly available. In a way, though, these new strains aren't "new" as much as they are newly reformulated. They are simply attempts by medical cannabis growers and manufacturers to re-create the healing strains that were prevalent and frequently prescribed by doctors until early in the 20th Century.

There are around 400 chemicals found in any cannabis plant; however, many of those chemicals are present in miniscule amounts, while THC and CBD appear in much greater quantities. Among the many newly bred strains that are being specifically created for medical marijuana patients, some are extremely low in the chemical THC and high in the chemical CBD, which are usually the most prominent chemicals in the plant.

While both THC and CBD provide healing qualities, it is the quantity of THC in the strain that most recreational users are interested in because THC causes the psychoactivity and the high or

stoned feeling. That's why, over the last seven decades or so of marijuana prohibition, the illegal back-alley trade created strains that were extremely high in THC. In fact, some of them were so high in THC that they contained little to no CBD at all. So these newly available low-THC, high-CBD medical strains that had recently become available in some places are the exact opposite of the THC to CBD ratio that is desired by recreational users.

Hearing about these new low-THC, high-CBD strains, I was anxious to try one. I knew that these new medical strains were bred to contain more healing benefits, and, because I am very sensitive to THC, I was hopeful to find a cannabis product that I could take during the day without experiencing the psychoactivity that made my body wobbly. I didn't expect anything miraculous; I just wanted a product to help quell my symptoms during the day.

I didn't expect the big surprise that occurred when I first started taking a new high-CBD, extremely low-THC capsule. The very next day, my usual morning coughing attach didn't happen. That was a big deal for me. In addition to other symptoms, a chronic debilitating cough had plagued me for 25 years, which a number of doctors had attempted to treat with limited success. At one point, several years earlier, I started taking a nutritional supplement that lessened the frequency of the cough by about fifty percent. However, it was still a daily problem and debilitating when it occurred. So I was truly surprised the day I woke up and didn't cough at all. To be honest, it took a couple more days for me to actually believe my cough had become much less frequent. Since then, when I take THAT particular cannabis product, the cough recurs intermittently—usually when I am overly tired or overly stressed.

When I started taking the high-CBD, low-THC capsules, I had two cannabis products that, combined, helped with my symptoms more than either product by itself. The new high-CBD capsule product seemed to be a miraculous answer for the decades-long chronic cough—but it didn't help with muscle spasms and pain.

That experience opened my eyes and helped me understand the importance of experimenting with different forms and types of cannabis even if you think you're already being helped as much as possible. Remember, different strains have different benefits. That's why it's helpful to do your own research, consult with doctors and other experts who are knowledgeable about cannabis, try new strains and new products, and experiment with dosage in order to get the most healing benefit possible. Since the two products—made from different strains of cannabis and manufactured by different companies—helped me in different ways, I took both on a daily basis. I took a low-THC product during the day and a high-THC product at bedtime.

More recently, I learned about another form of cannabis that gives patients even more options, which is cannabis that's raw. With rare exceptions, raw cannabis does not cause psychoactivity. So that's helpful for people like me who are sensitive to THC, as well as for treating children. However, just like all other strains, what works for one doesn't necessarily work for all. In addition to putting raw cannabis in salads and juicing it, raw cannabis is also made into cannabis oil through a cold-processing method.

Your Brain Produces Its Own Marijuana

I've written about holistic health for over three decades and thought I knew quite a bit about the subject. However, I was in for a surprise when I learned one of the main reasons that scientists believe that cannabis is so healing: In the 1990s, researchers discovered that there are natural chemical compounds in cannabis that match receptors in the cells of our own bodies. This discovery was so astounding to the scientific world that a 2004 Scientific American article was titled "The Brain's

Own Marijuana" in reference to these chemicals in cannabis.¹

Many medical and scientific experts believe that it is this link between the chemicals in the plant and those in the cells of our own bodies that makes cannabis so unique, so good at quelling symptoms and, in some cases, effective at bringing healing to health problems in the body and mind. In fact, the cells in our bodies that are a match for cannabinoids the in the cannabis plant were endocannabinoids. Because this discovery is still relatively new, at this point in time, most people—and, I dare say, most doctors—do not realize that they are walking around with receptors in the cells of their own bodies that are named after this herb. If you want to check this out, ask a few individuals—and a few doctors—if they can explain the endocannabinoid system to you. Most will probably say, "What is that?"

To date, scientists have identified two subtypes of cannabinoid receptors in our cells, with the likelihood that more subtypes will be discovered in the future. The two that have been identified are:

CB1 receptors: Found mostly in the brain, spinal cord and other parts of the body including the heart, uterus, testis, liver, small intestine and peripheral cells.

CB2 receptors: Found mostly on cells of the immune system, including the spleen, T-cells, B-cells and macrophages.²

A healthy immune system supports the body's individual cells as they repair or replace themselves when they're damaged. Receptors, which are structures located on the surface of a cell or inside it—such as enzymes, neurotransmitters, or viruses—are a vital part of this "repair or replace" process. They act like receivers and give instructions to the cells to take a specific action, such as dividing, dying and replacing themselves, or allowing a specific substance into

or out of the cell. All of these actions are constantly occurring in the body as a process of normal cell function.

Different strains of cannabis target different receptors in the body. In his leading-edge book, *The Biology of Belief*, cellular biologist Dr. Bruce Lipton explains that the receptors in our cells function like antennas that are tuned to respond to specific environmental signals. I find his overview of the ways in which receptors function helpful in understanding the link between the receptors in the cannabis plant and the receptors in the endocannabinoid system in our body's cells. Dr. Lipton says:

Receptors function as molecular "nano-antennas" tuned to respond to specific environmental signals. Some receptors extend inward from the membrane surface to monitor the internal milieu of the cell. Other receptor proteins extend from the cell's outer surface, monitoring external signals. Like other proteins ... receptors have an inactive and an active shape and shift back and forth between those conformations as their electrical charges are altered. ... Cells possess a uniquely "tuned" receptor protein for every environmental signal that needs to be read.

Some receptors respond to physical signals. One example is an estrogen receptor, which is specifically designed to complement the shape and charge distribution of an estrogen molecule. When estrogen is in its receptor's neighborhood, the estrogen receptor locks on to it, as surely as a magnet picks up paper clips. Once the estrogen receptor and the estrogen molecule bind in a perfect "lock and key" fit, the receptor's electromagnetic charge changes and the protein shifts into its active conformation. Similarly, histamine receptors complement the shape of histamine molecules, and insulin receptors complement the shape of insulin molecules.

Receptor "antennas" can also read vibrational energy fields such as light, sound, and radio frequencies. The antennas on these "energy" receptors vibrate like tuning forks. If an energy vibration in the environment resonates with a receptor's antenna, it will alter the protein's charge, causing the receptor to change shape. ... because receptors can read energy fields, the notion that only physical molecules can impact cell physiology is outmoded. Biological behavior can be controlled by invisible forces, including thought, as well as it can be controlled by physical molecules like penicillin....

Receptor proteins are remarkable, but on their own they do not impact the behavior of the cell. While the receptor provides an awareness of environmental signals, the cell still has to engage in an appropriate, life-sustaining response, that is the venue of the effector proteins.³

Until recently, cannabis was the only plant found to be a match for our body's cell receptors, making this herb incredibly unique and special. However, it didn't make sense to me that there would be only one plant on this vast planet that was a match for our human endocannabinoid receptors. So I wasn't surprised to find new research that indicates that chemicals from plants *other than cannabis* also directly interact with CB1 receptors and/or CB2 receptors or have a chemical profile that is similar to the cannabinoids in cannabis. While research on this subject is in its infancy, the herb Echinacea has been found to be a match for some CB1 and CB2 receptors, with other plants also being investigated for their roles in promoting wellness via the human endocannabinoid system.⁴ Meanwhile, some new products combine cannabis and other healing botanicals such as Echinacea to increase the effects and curative properties of both herbs.

Later, we will look at the connection between these receptors in the cells and the healing properties of cannabis that make it so powerful in healing bodily conditions.

The Role of Cannabis in Promoting Homeostasis

There's a lot going on in your body simultaneously; it is set up for balance and harmony, with a goal of promoting maximum wellness. The body's constant effort to maintain equilibrium among all of its internal processes and systems is called *homeostasis*, which the *Merriam Webster Dictionary* defines as "the maintenance of relatively stable internal physiological conditions (as body temperature or the pH of blood) in higher animals under fluctuating environmental conditions." Early on in my research, I learned that cannabis has healing properties that promote this important function in the body.

As the body pursues optimal harmony and balance through homeostasis, it is constantly in the process of compensating. When one process or system is out of balance, another process or system compensates for the system that is not fully functioning. One example is the body's ability to regulate temperature. As the body gets too hot or too cold, it will compensate to deal with the change in temperature. That's why you sweat on a hot day; it's the body's way of cooling down.

The "repair and replace" mechanism within all of the cells in your body is also part of homeostasis. In fact, in the second that it took you to read the previous sentence, thousands of your cells were automatically repaired or replaced with new cells. The body's intelligence is mind-blowing and its ability to prioritize is what homeostasis is all about.

Imbalances in any of your body's systems throw it off balance and out of whack and require compensating systems to restore balance. For most of us, these compensating mechanisms kick in automatically and keep us healthy, especially when we're young. If we get a cold or flu, our immune system goes to work and we are soon well again. If there's a toxin in the air, the body compensates, handles it, and we don't even know about it because the body is programmed for wellness. It automatically compensates over and over to ensure survival with the very best outcome. That is, unless it's overwhelmed and unable to handle the challenges that come its way, including infections, parasites, and environmental toxins. And, in addition to the tangible challenges that we deal with in the physical world, emotional traumas and negative thinking can also impact the body chemistry in negative ways and impact our health.

So how does homeostasis fit into the scheme of things when the subject is cannabis? Well, anything that helps the body deal with its imbalances will help it get back into homeostasis. While the ratios of the chemical compounds in cannabis vary from strain to strain, scientists have discovered a wide range of positive effects from these healing chemicals, including effects that are anti-inflammatory, anti-epileptic, anti-ischemic, anti-diabetic, anti-psychotic, anti-nausea, anti-spasmodic, antibiotic, anti-anxiety, anti-depressant, anti-proliferative, and anti-neoplastic (inhibiting development of malignant cells).

Even knowing all of this, it took a while for me to understand why cannabis is so significant and powerful, and why its healing properties are utilized by our bodies to such an amazing extent. As you will learn in these chapters, cannabis truly has a special and unique place in the world of botanicals, which is why many doctors and other health professionals are now recommending it to patients.

Most medicinal herbs give us results over a period of time; their action is usually not very fast and we might not feel the beneficial effects for days, weeks, or even months. That's why it's important to

give medicinal herbs time to do their work and not give up on them too soon. It's okay that it takes time, because we understand that medicinal herbs heal on a causal basis. One of my mentors recently used the term "softer" to describe the healing we receive from herbs and many other holistic modalities. I like that terminology because experts in herbal medicine tell us that herbs heal on a deeper level than pharmaceuticals, and that does feel softer to me. When we take a medicinal herb that benefits our body, it does so by getting to the root of problems and restoring balance.

While it can take time for a major health issue to be helped, or in some cases, even resolved with cannabis medicine, most patients experience some of its beneficial effects almost immediately, especially if they are astute in noticing their body's responses. For example, you might immediately notice deeper, more relaxed breathing, and more relaxation in the muscles and skeletal system, which can result in better sleep, fewer bathroom visits during the night, improved lung function, and/or greater endurance and stamina. Cannabis can also quickly boost a patient's mental attitude and it's known for giving quick relief to those suffering from nausea or lack of appetite.

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Norma Eckroate

Chapter 2

A Brief Look at the History and Current Status of Cannabis

In past centuries, cannabis was grown for many different purposes. The United States Constitution was drafted on hemp paper and the sails on ships of that era were made of hemp canvas. (In fact, the word "canvas" is derived from *cannabis*.) Hemp was considered such an important crop that, for a good part of the history of the U.S., all farmers were *required* to grow it.

When marijuana was declared illegal in the 1930s, hemp production was all but shut down in many parts of the world. Now, thankfully, as medical cannabis becomes more available, there is also a resurgence of industrial hemp—used to make paper, rope, wax, resin, cloth, pulp, paint, and even fuel—as well as nutritional food products. Today, the possibilities for new hemp products seem neverending; one source indicates that there are now 25,000 products that are being made or could be made from this versatile plant.

Hemp is fast growing and ecological. The North American Industrial Hemp Council, Inc. lists some of its many benefits on their website:

> Hemp can be made into fine quality paper. The long fibers in hemp allow such paper to be recycled several times more than wood-based paper.

- Because of its low lignin content, hemp can be pulped using fewer chemicals -than with wood. Its natural brightness can eliminate the need to use chlorine bleach, which means no extremely toxic dioxin being dumped into streams. A kinder and gentler chemistry using hydrogen peroxide rather than chlorine dixoide is possible with hemp fibers.
- Hemp grows well in a variety of climates and soil types. It
 is naturally resistant to most pests, precluding the need
 for pesticides. It grows tightly spaced, out-competing any
 weeds, so herbicides are not necessary. It also leaves a
 weed-free field for a following crop.
- Hemp can displace cotton which is usually grown with massive amounts of chemicals harmful to people and the environment. 50% of all the world's pesticides are sprayed on cotton.
- Hemp can displace wood fiber and save forests for watershed, wildlife habitat, recreation and oxygen production, carbon sequestration (reduces global warming), and other values.
- Hemp can yield 3-8 dry tons of fiber per acre. This is four times what an average forest can yield.⁶

As a food source and nutritional supplement, hemp is considered to be a superfood for many reasons. It is highly digestible and a great vegetarian source of protein that contains all 20 amino acids, including the nine essential amino acids that our bodies cannot produce, as well as omega-3 and omega-6 fatty acids, which are balanced at the recommended ratio of three to one. In addition to being a nutritious food on its own, hemp seed is also used to make other products such as cooking oil (hemp seed oil), hemp milk, and hemp protein powder. Hemp is also a great feed for animals. Cattle digest hemp more efficiently than other cattle feeds, so they actually

require less feed. And hemp seed has been an ingredient in canary song food for ages because it's known to increase the frequency of a canary's songs.

A review of cannabis history in the last century, both as a medicine and as a crop of rich industrial and nutritional diversity, can easily be conducted in numerous books and on a seemingly endless number of websites. It doesn't take a rocket scientist to see the obvious—between its medicinal, industrial, and nutritional potential, this one plant was such a threat to established industries in the 1930s that they colluded to close it down with scare tactics. And they were so good at the scare tactics that, for most of a century, it worked. Instead of focusing on ways to work in concert with Mother Nature, most multi-national companies have, for decades, done much to spoil her, while at the same time, trying—and, too often, succeeding—in patenting some of the components of her gifts so they can "own" them.

We were warned about the dangers of a greedy and powerful military industrial complex by President Dwight Eisenhower. Days before he left office in 1961, his farewell speech included this: "In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists, and will persist."

Years ago, I learned a very wise teaching that is expressed in various ways by indigenous cultures around the globe: All of the tribe's decisions should be made by considering the impact of those decisions "to the seventh generation in the future." The goal, of course, is that we collectively pass a beautiful and sustainable planet along to future generations by treading lightly and using resources wisely, with the least toxic impact. I believe that big companies can find sustainable, eco-friendly ways to focus their amazing production, marketing, and distribution channels—and still rake in profits.

Contradictory and Confusing Perspectives from the Powers That Be

Like so many others before me, once I had the official paper in my hand in which my state government sanctioned my right to use an ancient healing herb—without too much concern at that point in time of being arrested—I entered the maze. I was a stranger in a strange land. I had many questions: Where do I get the marijuana? What form of marijuana should I take (including smoking, vaporizing, capsules, edibles, suppositories, creams, salves, and other forms)? What strain or type should I chose? How often should I take it? Unless we have a knowledgeable physician or other ally, these are among the questions most of us must answer for ourselves. In this new and somewhat strange world, we are expected to figure out the details and then decide what's right for us as individuals. In fact, as of this writing, doctors in some jurisdictions are not allowed to tell you anything about medical marijuana.

The biggest shock in the U.S. "war" against cannabis is that one branch of the government says cannabis has *no medicinal value* while, at the same time, a different branch of the U.S. federal government patented the cannabinoid, CBD, *for its medicinal value*. One has to be discerning, and at least somewhat knowledgeable, in order to sift through the mounds of dated, inaccurate, and biased information about cannabis that is presented as truth in books and on the Internet. One of the reasons for this glut of outdated, incorrect, and obviously skewed data was presented by Dr. Sanjay Gupta on his CNN special, *Weed*. He reported that there have been over 20,000 studies on cannabis in the last couple of decades; however almost all of them—94 percent—were focused on studying the deleterious effects and harm caused by marijuana, while only six percent of the studies were focused on the benefits.

Clearly, there is a huge amount of evidence that cannabis has great medicinal value for an untold number of illnesses and conditions. But, as of this writing, the government still controls cannabis research in the U.S. and has allowed an extremely limited amount to be done, with most of it focused on *disproving* the medicinal value of marijuana. As a result, most doctors still refuse to recommend it due to the lack of "scientific" evidence of its efficacy.

Anyone who knows how scientific studies are set up understands that it can be challenging to set up a totally unbiased study. If you want to study "deleterious effects and harm from marijuana," that's what you're looking for-and it's likely that you will set up your research to focus on that. On the other hand, if you want to study "benefits from marijuana," you will set up a study to give you data that proves the benefits of the herb. Unfortunately, for most of the last century, the U.S. government rarely looked for anything good about marijuana. The majority of the studies were done by the National Institute of Drug Abuse, a branch of the government that was focused almost exclusively on funding studies that would continue to demonize cannabis as a dangerous drug. Interestingly, some of the very top medical doctors who now promote cannabis as an important medicine were originally involved in research to debunk its medical benefits and were converted when their studies proved its great merits. Within these chapters I quote from some of them.

Most of us have been brainwashed about the evils of "weed" all of our lives. Governments branded it as dangerous and made it illegal. In the U.S., the Justice Department put it on Schedule I of the Controlled Substances Act, which means it has *no medicinal value* and is one of the most dangerous drugs available. The irony is that while some government agencies continue to view cannabis as a dangerous, illegal drug, other government agencies are well aware of its medicinal value. While people were still being thrown into prison for distributing or using marijuana for medicinal purposes, the government continued to run its own medical marijuana program out of the University of Mississippi. That program, which began in 1976, provides free cannabis each month to the patients who are enrolled in

it. All these years later, patients who were originally part of this program are still receiving free cannabis *from the United States government*.

In addition to the government's own contradictory marijuana giveaway program, the craziness continued when the United States Department of Health and Human Services obtained a patent on cannabinoids for their antioxidant and neuroprotective properties. Does this make sense—one government agency tells us that cannabis is a dangerous and illegal Schedule I drug, with *no medicinal value*, while another government agency not only acknowledges its medicinal value but also obtains a patent for it? Now how is that possible, you might ask? Isn't it impossible to patent a plant? Apparently the U.S. federal government can do the impossible.

The abstract of U.S. Patent 6,630,507, entitled "Cannabinoids as Antioxidants and Neuroprotectants," tells us exactly what the U.S. Department of Health and Human Services believes to be true about cannabis and its chemical compounds, cannabinoids. It says, in part:

Cannabinoids have been found to have antioxidant properties.... This new found property makes cannabinoids useful in the treatment and prophylaxis of a wide variety of oxidation associated diseases, such as ischemic, age-related, inflammatory and autoimmune diseases. The cannabinoids are found to have particular application as neuroprotectants, for example in limiting neurological damage following ischemic insults, such as stroke and trauma, or in the treatment of neurodegenerative diseases, such as Alzheimer's disease, Parkinson's disease and HIV dementia.⁸

I am also fascinated by the section in the patent entitled, "Detailed Description of Some Specific Embodiments," which discusses more of what this "invention"—in this case, "compounds" found in the herb cannabis—provide to the body:

This invention provides antioxidant compounds and compositions, such as pharmaceutical compositions, that include cannabinoids that act as free radical scavengers for use in prophylaxis

and treatment of disease. The invention also includes methods for using the antioxidants in prevention and treatment of pathological conditions such as ischemia (tissue hypoxia), and in subjects who have been exposed to oxidant inducing agents such as cancer chemotherapy, toxins, radiation, or other sources of oxidative stress. The compositions and methods described herein are also used for preventing oxidative damage in transplanted organs, for inhibiting reoxygenation injury following reperfusion of ischemic tissues (for example in heart disease), and for any other condition that is mediated by oxidative or free radical mechanisms of injury. In particular embodiments of the invention, the compounds and compositions are used in the treatment of ischemic cardiovascular and neurovascular conditions, and neurodegenerative diseases. However the present invention can also be used as an antioxidant treatment in non-neurological diseases.

In addition to this patent, a number of other patents have been granted by the U.S. government for the medicinal value of cannabis, including:

- U.S. Patent 8,790,719: Phytocannabinoids in the treatment of cancer
- U.S. Patent 5,538,993: Compounds according to the present invention are characterized by various beneficial properties such as analgesic, anti-emetic, sedative, antiinflammatory, anti-glaucoma, and neuroprotective activities
- U.S. Patent 6,448,288: Use of Cannabinoid compounds for inhibiting, inducing apoptosis, antitumoral action
- U.S. Patent 4,876,27: Special use in *cases of acute and of chronic pain
- U.S. Patent 7,179,800: Useful for therapy, especially in the treatment of pain, inflammation and autoimmune disease

Clearly the U.S. government knows that cannabis is actually a safe, effective, and relatively inexpensive medicine; not a dangerous drug with no medicinal value, as the Drug Enforcement Administration has classified it for so long.

A New Look at Some Old Stereotypes

Now let's look at a couple of the stereotypes about cannabis—that cannabis causes the "munchies" and that people who use cannabis are "slackers."

The stereotype that cannabis causes the "munchies" and leads to overeating may be true for some people when they take *some cannabis products*. But, again, it depends on the strain and the individual. Some people who are overweight *lose* weight with no effort on medical cannabis, while those who are underweight are often successful in gaining weight.

I've been overweight for most of my life. Even though I'd dropped quite a bit of weight a few years earlier using a nutritional supplement and doing emotional healing work, when I started taking cannabis, I was still overweight and had been stuck on a plateau for a couple of years. For the first six months or so that I took cannabis, I didn't gain or lose weight. But then, after I started taking a high-potency *cannabis oil* product, which is now manufactured under the name Natur-Oil, I started losing weight with no effort at the rate of one to three pounds a month until I had lost about 30 pounds. I know that cannabis can help balance blood sugar levels and I assume that's one of the many ways it has helped in my body. Instead of getting the "munchies" and overeating, cannabis curbed my appetite and my desire for sweets and carbs. I didn't diet, eliminate or limit any foods, or exercise more. I ate whatever I wanted and enjoyed every bite of

everything I chose to eat, including sweets and carbs, finding that my body only wanted small amounts of them. That made weight loss easy. I was still rather shocked on those occasions when I didn't want even a small serving of that yummy-looking dessert being offered to me, but the fact that I didn't WANT it and passed on it for that reason felt really good. I've continued on this trajectory and now feel that I'm "eating to live," rather than "living to eat."

My positive experience with weight loss and cannabis isn't everyone's experience. For some people, the munchies seem to be inevitable. If you experience an uncontrollable urge to munch on food when you take cannabis, rather than fret about this side effect, prepare ahead of time and fill your fridge, freezer, and pantry with healthful foods to snack on. Also, you may find that switching to a different cannabis product will eliminate the munchies or, like me, you may even find that you start losing weight.

Another stereotype that's prevalent is that anyone who uses medical cannabis is a slacker who "just wants to get stoned." My experience is that getting high is NOT the preference of most medical marijuana patients. Our goal is not to get high; our goal is to heal. Thankfully, as I mentioned above, for those of us for whom the high is undesirable, newer strains and forms of non-psychoactive cannabis are now available.

Prominent Voices Join the Pro-Medical Cannabis Forces

As more and more people become aware that marijuana is a remarkable and important medicine, the small number of medical experts who have spent years championing it have been joined by some prominent voices. One welcome voice is that of Dr. Sanjay Gupta, a neurosurgeon and medical correspondent for CNN, who has

apologized for his 2009 article in *Time* magazine entitled "Why I Would Vote No On Pot."

In a 2013 article entitled "Why I Changed My Mind on Weed," Dr. Gupta totally reversed his previous stand against medical marijuana. He now says that cannabis has "very legitimate medical applications" and "sometimes it's the only thing that works." He apologized for the information he shared in the past on this subject, admitting that he was wrong. Dr. Gupta also said, "I was too dismissive of the loud chorus of patients whose symptoms improved on cannabis. ... We have been terribly and systematically misled for nearly 70 years in the United States, and I apologize for my own role in that." ¹⁰

Another prominent voice who has greatly expanded our knowledge is Dr. Lester Grinspoon, Emeritus Professor of Psychiatry at Harvard Medical School, who has been a pioneer in the medical marijuana world for some time and written about it extensively. Dr. Grinspoon brings a welcome sanity to the conversation about the efficacy of cannabis. In a Boston Globe editorial entitled "Marijuana as Wonder Drug," he wrote:

... [marijuana] is extraordinarily safe—safer than most medicines prescribed every day. If marijuana were a new discovery rather than a well-known substance carrying cultural and political baggage, it would be hailed as a wonder drug.¹¹

Cannabis Is Efficacious for Many Conditions and Has Been Used Medicinally Since Ancient Times

Cannabis has been cultivated by cultures around the globe and used medicinally for a myriad of purposes since ancient times. These cultures include Egypt, India, China, and Persia, where historical records show that the healers of the day found cannabis to be efficacious for chronic pain, cancer, spasticity, seizure disorders, infectious disease, nausea, and numerous other conditions.

In today's world, the list of the conditions that doctors and patients say have been helped, dramatically improved, or even cured with cannabis gets longer and longer, with more and more websites and television reports proclaiming praise for what it can do to relieve symptoms and heal us. One website includes an exhaustive list of chronic conditions that a pioneering medical cannabis doctor, Tod H. Mikuriya, MD, successfully treated with cannabis over a period of 14 years. The website can be accessed at http://www.cannacenters.com/dr-tods-list.¹²

Because of the longstanding anti-cannabis bias from governments, the truth about this herb has been distorted for most of the past century. Therefore, when you're researching medical cannabis, it is important to consider the source of any information. Those distortions have been fueled by questionable research studies that were clearly biased. That's why any review of previous research studies, as well as anecdotal stories about medical cannabis, often includes a lot of erroneous or outdated information.

Unfortunately, it's likely that a lot of that old information will be out there and will continue to be touted by anti-cannabis "experts" for some time to come. For instance, I visited a website about the eye condition, glaucoma, which warned patients that medical marijuana was *not* an acceptable choice for treating that condition. Interestingly, the article did not dispute the fact that marijuana is known to work well for glaucoma; however, it purported that it would not be possible to take enough marijuana to have a "clinically relevant" impact on the disease. Medical cannabis experts and many patients who tout their successes in treating glaucoma with cannabis totally disagree with that statement.

How sad for glaucoma patients that a seemingly relevant organization that one would expect to be up-to-date with medical science is so blinded to the truth (pun intended); I'm not going to direct you to this website as an example because I hope they soon update it with accurate information about the healing qualities of cannabis.

Whatever your health challenges might be, I encourage you to research how medical cannabis might specifically help you. I hope you'll keep an open mind as you research the subject, and suggest you take the comments of any naysayers with a grain of salt. Also, remember that some websites are biased to a particular point of view, some with a financial incentive. And some simply copy articles from other sites, potentially making it seem that a particular perspective is more widely held than it is.

If, as a medical cannabis patient, you're on your own without a doctor to guide you, I recommend experimenting with different forms and potencies to discover which is the most beneficial for your body. Also, it's helpful to remain open to new options as medical cannabis experts are constantly developing new, more healing strains as well as new types of products. You may also find that an appropriate protocol includes two or more forms of cannabis that you use at different times of the day—or even simultaneously. For example, a person with skin cancer might take cannabis in capsule form and also put plasters of cannabis oil directly on the skin cancer. Or, a person with colon cancer could take cannabis in capsule form, use a vaporizer, and also use cannabis suppositories.

Having more than one product gives you options. It's also okay to take two different products at the same time, such as a capsule and a tincture. The cannabis delivered via the capsule takes an hour or two to get into the system but its benefits last for a longer period of time, while the tincture is absorbed much faster and therefore provides faster relief, but it does not last as long.

Choices in Potency and Dosage

The range of cannabis products available today is vast; some are very low in potency and others, such as the cannabis oil that I previously mentioned, are extremely high in potency. It's nice to have so many options, but it can be difficult to decide among all of them. Certainly, it's advisable to have a health professional guiding you in product selections. However, at this point in time, there are few medical professionals who are qualified—or, in some jurisdictions, legally allowed—to assist us. The idea that a medicine would be prescribed for us without clear directions and guidelines is something that we're not used to. Nevertheless, for most patients, in addition to choosing our own products, we must also learn to *self-titrate*, which means determining our dosage and frequency of administration.

The main goal of many patients is symptom relief; they want cannabis to quiet or relieve their symptoms. If anxiety keeps you awake, if you have asthma, if you experience pain, or if you are dealing with one of a myriad of other bothersome symptoms, using cannabis for symptom relief may be exactly right for you. However, many patients who are dealing with serious conditions that are acute or chronic are focused on cannabis medicine for its therapeutic, healing qualities. Symptom relief is great, but their main desire is to heal the condition altogether or to achieve improvement in that condition, sometimes even beyond that which medical science suggests is possible.

Many, if not most, of the anecdotal stories available in the media about healing from cannabis are from patients who used the most potent forms that are available today, such as cannabis oil in high dosage protocols. As I detail in Chapter 21, the cannabis oil protocol that many patients follow involves increasing the dosage slowly over several weeks until they are taking one gram a day and then maintaining that very high dose for a couple of months.

While some cannabis-savvy doctors encourage the "more is better" approach for their patients and share success stories based on that protocol, others believe that small quantities are actually more effective. The theory behind this low dose regimen is that small quantities do a better job of stimulating the body's internal healing system and, in the end, lead to even better results. A medical doctor who works with many cannabis patients told me that he's seen patients heal from end-stage cancer on a dosage of two small drops of cannabis oil a day. That's equivalent in size to two grains of dry rice, and it's a vastly smaller dose than the much-larger one gram dose that some people take. Clearly, no one really knows what dosage is needed by any particular individual for symptom relief or healing to occur. Every person's body is different and nobody knows exactly what will work for you.

Topical cannabis products have also been heralded by some patients for all-out healing. One YouTube video from a television news show details the "all-out cure" of five malignant tumors in a man's neck through the use of a cannabis balm or ointment.¹³ Of course, I can't vouch for the reliability of this TV news report. While I was surprised that this man's healing was attributed to the use of the topical ointment alone, the video doesn't detail the potency of the cannabis balm, how often he applied it, or how long it took for the healing to take place. But is it possible that the healing reported on this video really happened? I believe so.

We'll dig deeper into various issues related to potency and dosage in future chapters.

Asking the Right Questions

As we approach a tipping point in the modern history of medical cannabis, some experts in this field have been researching, growing, and/or manufacturing products for many years, while others are fairly new to this booming industry. In many cases, these experts are self-educated, having gotten into this business because of their own dire healing needs or those of friends or family members.

The cannabis business owners that I've met are very concerned about providing help to patients. They have taken on great responsibilities, knowing that some patients are facing life or death decisions and others are dealing with quality of life issues. One of these medical cannabis pioneers, Patrick Lang, explained his perspective to me this way, "In the widespread absence of clinical research we—as cannabis patients—are doing our own research. Our facts and theories on cannabinoids come from on-the-job training, individual research, personal experience, educated guesses, and empirical data—in the rare places that it exists."

I am not a medical professional or a scientist; I am simply a writer, a researcher, a spiritual counselor, and a seeker of truth. While healing often requires specific treatments and products, from a holistic, mind-body-spirit perspective, it also involves tapping into the inner wisdom that's always available to our bodies and our consciousness.

I sincerely hope your medical cannabis journey will be easier because of the information on these pages and that it will help speed you on your way to greater wellness. No matter what history you may have with marijuana, pro or con, or what you think you know about it, please put aside any notions or biases for a little while as we continue to explore this sometimes miraculous herb.

Norma Eckroate

Chapter 3

New Options in Medical Marijuana Products Provide Even More Healing Potential

Exciting new options for medical marijuana patients have unfolded in this era, which many are calling the "green rush." Scientific research (mostly outside of the U.S.), anecdotal stories from patients, and discoveries on the news and on the web continuously confirm an increasing number of health benefits from ingesting cannabis. The lives of many patients, some of whom are very young children, have been literally transformed by new strains, new processing methods, new product choices, and new ways to ingest cannabis. After two-and-a-half years of research, I can tell you that many patients—who have dealt with a wide range of physical and mental health problems—say, "Cannabis gave me my life back."

The laws are changing in states and countries around the globe, allowing more and more people to legally access this amazingly healing herb. As the paradigm shifts to greater mainstream acceptance of medical cannabis, both patients and entrepreneurs have stepped into a bold new world in which cannabis is appreciated and honored instead of being misrepresented, defiled, altered, distorted, and debased.

More and more new research studies have been done around the world. And many of them show that cannabis doesn't just quell symptoms; in some cases it also has healing benefits. In the long term, the possibility that cannabis medicine might limit or delay the progression of a health issue and potentially even heal it gives me and other patients great relief. In fact, there's reason to believe that almost any patient could be helped by it:

• Patients with acute health conditions that are life threatening.

Cannabis has been shown to provide symptom relief for many patients and, for some, actual improvement in severe life-threatening health challenges.

- Patients with chronic health issues.
 - Many patients find that symptoms of chronic health concerns are quelled by cannabis, without the negative side effects of other medications.
- Patients with sporadic health issues or injuries.

 Cannabis is also found to be efficacious for many common symptoms, such as pain, anxiety, difficulty sleeping, nausea, etc.
- Health-conscious individuals who want to stimulate their body's internal healing system with a regular maintenance dose of cannabis.

Cannabis helps modulate or balance every human physiological system, including regulating immunity, inflammation, neurotoxicity, blood pressure, appetite, gastrointestinal function, and intraocular pressure. Therefore, many health-conscious individuals desire a small maintenance dose of medical cannabis to promote health and well-being.

In this chapter, we'll look at some of the categories of cannabis products that are popular with patients today. But first, I want to address the question of how much faith we should put into patients' anecdotal success stories.

Are Anecdotal Reports About Patient Successes a Reason to Try Cannabis?

As I heard more and more stories of individuals who proclaimed that cannabis healed them from challenging or even life threatening conditions, I realized that relief of symptoms was only the tip of the iceberg in terms of its potential benefits. These stories of people saying that they have been cured are considered "anecdotal" to most experts, who say they are not to be relied upon as accurate or trustworthy. But since very few patients are prescribed cannabis by their primary care physicians, that means anecdotal reports about the efficacy of cannabis are rarely-in fact, almost never-considered viable. Even when major symptoms are relieved or outright healing occurs, without the strict protocol of clinical scientific studies, officially, it just doesn't count as far as they're concerned. Unless a patient is part of a controlled study or being given a medication or treatment by their doctor, positive results are not given any merit by most medical professionals. And, of course, that does make sense to a certain degree.

Without standards and controls, who knows what other factors might have influenced the patient and led to improvement in a condition? But does that mean we should totally dismiss the fact that numerous people report phenomenal healing with cannabis, including reported healings of end-stage cancers and improvement in severe seizure disorders? At what point will the countless anecdotal stories of patients being healed be given merit and, at the very least,

be studied so that other patients may benefit, especially when all other options have failed or produced debilitating side effects?

Unfortunately, in the case of cannabis, valid studies that are focused on the healing efficacy of the herb are few and far between. As of this writing, in the U.S., the government controls the studies and it has allowed very few new studies to be conducted. Much of the current research that is propelling our scientific understanding of this herb's healing benefits is currently being done outside the U.S., with Israel, Spain, and Uruguay as leading edge examples.

Harvard psychiatrist Dr. Lester Grinspoon, whom I quoted earlier, is the author of two books written decades ago on this subject, *Marihuana Reconsidered* and *Marihuana: The Forbidden Medicine*. In an article in *High Times*, he argues that the huge amount of anecdotal evidence on medical cannabis should be considered as a validation of its effectiveness:

Like everyone else who has been working over decades to ensure that marijuana, with all that it has to offer, is allowed to take its proper place in our lives, I have been heartened by the rapidly growing pace at which it is gaining understanding as a safe and versatile medicine. In addition to the relief it offers to so many patients with a large array of symptoms and syndromes (almost invariably at less cost, both in toxicity and money, than the conventional drugs it replaces), it is providing those patients, their caregivers, and the people who are close to them an opportunity to see for themselves how useful and unthreatening its use is. It has been a long and difficult sell, but I think it is now generally believed (except by the United States government) that herbal marijuana as a medicine is here to stay.

The evidence which underpins this status as a medicine is, unlike that of almost all other modern medicines, anecdotal. Ever since the mid-1960s, new medicines have been officially

approved through large, carefully controlled double-blind studies, the same path that marijuana might have followed had it not been placed in Schedule I of the Controlled Substances Act of 1970, which has made it impossible to do the kind of studies demanded for approval by the Food and Drug Administration. Anecdotal evidence commands much less attention than it once did, yet it is the source of much of our knowledge of synthetic medicines as well as plant derivatives. Controlled experiments were not needed to recognize the therapeutic potential of chloral hydrate, barbiturates, aspirin, curare, insulin or penicillin. And there are many more recent examples of the value of anecdotal evidence. It was in this way that the use of propranolol for angina and hypertension, of diazepam for status epilepticus (a state of continuous seizure activity), and of imipramine for childhood enuresis (bed-wetting) was discovered, although these drugs were originally approved by regulators for other purposes.

Today, advice on the use of marijuana to treat a particular sign or symptom, whether provided or not by a physician, is based almost entirely on anecdotal evidence. For example, let's consider the case of a patient who has an established diagnosis of Crohn's disease but gets little or no relief from conventional medicines (or even occasional surgery) and suffers from severe cramps, diarrhea and loss of weight. His cannabis-savvy physician—one who is aware of compelling anecdotal literature suggesting that it is quite useful in this syndrome—would not hesitate to recommend to this patient that he try using marijuana. He might say, "Look, I can't be certain that this will help you, but there is now considerable experience that marijuana has been very useful in treating the symptoms of this disorder, and if you use it properly, it will not hurt you one bit; so I would suggest you give it a try, and if

it works, great—and if it does not, it will not have harmed you."

If this advice is followed and it works for this patient, he will report back that, indeed, his use of the drug has eliminated the symptoms and he is now regaining his weight; or that it doesn't work for him but he is no better or worse off than he was before he had a trial of marijuana. Particularly in states which have accommodated the use of marijuana as a medicine, this kind of exchange is not uncommon. Because the use of cannabis as a medicine is so benign, relative to most of the conventional medicines it competes with. knowledgeable physicians are less hesitant to recommend a trial.

One of the problems of accepting a medicine—particularly one whose toxicity profile is lower than most over-the-counter medicines—on the basis of anecdotal evidence alone is that it runs the risk of being oversold. For example, it is presently being recommended for many types of pain, some of which are not responsive to its analgesic properties. Nonetheless, in this instance, a failed trial of marijuana is not a serious problem; and at the very least, both patient and physician learn that the least toxic analgesic available doesn't work for this patient with this type of pain. Unfortunately, this kind of trial is not always benign. 15

While Dr. Grinspoon encourages us to consider anecdotal reports about the efficacy of medical marijuana, he also shares his very serious concern that some patients may put much *too much faith* in widespread anecdotal reports on the Internet and in books which claim that it cured cancer. I suggest that you read Dr. Grinspoon's article in its entirety on the High Times website. He ends the article with this guidance and admonition to cancer patients:

There is little doubt that cannabis now may play some noncurative roles in the treatment of this disease (or diseases) because it is often useful to cancer patients who suffer from nausea. anorexia. depression, anxiety, pain insomnia. However, while there is growing evidence from animal studies that it may shrink tumor cells and cause other promising salutary effects in some cancers, there is no present evidence that it cures any of the many different types of cancer. I think the day will come when it or some cannabinoid derivatives will be demonstrated to have cancer-curative powers, but in the meantime, we must be very cautious about what we promise these patients.¹⁶

New, More Medicinal Strains of Cannabis

As I touched on in Chapter 1, most people think of medical cannabis as one specific medicine when, in reality, each strain of cannabis is, in some ways, a different medicine from every other strain. What do we mean by the word *strain* as it relates to medical cannabis? If you are a layperson in the world of botany like me, you may be more familiar with the word *variety* to distinguish plants of the same species from one another. Just think about all of the different varieties of tomatoes that are available, ranging from large, juicy heirloom tomatoes to small cherry tomatoes—with numerous sizes and shapes in-between. There are over 25,000 strains of tomatoes in the world; even though they are all tomatoes, there are many differences among them, including their nutritional content, size, color, taste, and texture. Nobody knows how many strains of cannabis exist today; however, one expert tells me over 1,000 strains have been named.

THC (tetrahydrocannabinol) and CBD (cannabidiol) are just two of the 80 to 100 cannabinoids found in the cannabis plant. One or the

other or a combination of THC and CBD are prominent in most strains, often representing 50 percent or more of the total cannabinoids that are present, while the other 78 to 98 cannabinoids combined make up the rest of the total.

Each of the cannabinoids—even those that are present in minute amounts—has its own unique properties and potential healing benefits. Just as with other herbs that are used for medicinal purposes, it is the synergy—or "entourage effect"—of all of the active chemical compounds that Nature graced the plant with, working together, that create the healing effects. Because the ratios of cannabinoids and other chemicals vary in each strain, each strain is unique. To an extent, each strain of cannabis is a different medicine. As research continues and even more strains are bred, more patients will find illness- and condition-specific strains that ease symptoms and bring greater healing to a wider range of health challenges.

Cannabis experts are working to breed new strains for specific health issues, leading to even greater degrees of symptom relief and improved well-being for many patients. This is a total turnaround from the breeding practices of the illegal trade, which was driven by recreational users who wanted the increasingly bigger "highs" that came from larger ratios of THC. In fact, many of these recreational strains contained almost *no* CBD. And that's unfortunate since studies show that CBD has many healing properties.

Some media reports make it seem as if today's patients can easily obtain specific strains that have been proven to help with specific conditions. But, as of this writing, that's still rare. In most cases, patients are left on their own to determine the cannabis product or products that will work for them—and then obtaining them is not always easy. When I first became a medical cannabis patient, I learned this lesson quickly.

In my state, the doctor who gave me the "recommendation" that made it legal for me to obtain cannabis was not allowed to tell me what to buy or even where to go to obtain it. I had a piece of paper that said it was legal for me to buy medical marijuana but it was up to me to figure out what and where. It's hard to imagine this in the world of medicine; and even in the world of herbs there's not a good parallel. The closest analogy I could come up with is this: Let's say your doctor wrote you a prescription for an antibiotic. But, instead of writing down which of the 100-plus antibiotics she wanted you to take, she simply wrote "antibiotic" on the prescription, signed it, and sent you off to the pharmacy with it. The pharmacist would be flummoxed and, of course, unable to fill the prescription. That's basically what happens when patients are given the paperwork that allows them to purchase medical marijuana.

Medicinal cannabis strains are bred for their specific healing qualities and require quality control in the growing and manufacturing processes to ensure that they are of high quality, with no molds, pesticides, or other toxins or impurities. Since many patients have compromised immune systems, organic cannabis is preferable. In addition, treatment protocols for medical use of cannabis allow for non-intoxicating, smokeless, and topical forms and formulations.

Much of the cannabis that's available today, especially for recreational purposes, contains many times more THC than a few decades ago. CBD was, to a great extent, bred out of cannabis over the years by those in the illegal marijuana trade who were focused on providing high-THC content for customers. After all, most of them wanted the biggest high possible. Since the advent of medical cannabis in this modern era of the plant, efforts to breed higher-CBD content into some medical strains has been an ongoing challenge. It takes a long time, lots of patience, and a lot of know-how to breed new strains that have a specific chemical profile; therefore, while some medical cannabis growers and manufacturers are now focusing on high-CBD strains, the majority of the medical cannabis that has been available to date contains little to no CBD.

Another factor that must be considered in strain development is that just because more CBD is desirable, that does not mean THC is undesirable or should be bred out entirely. Depending on a patient's health condition and symptoms, different ratios of CBD and THC—and all of the additional chemicals that are natural to the plant—can make a big difference in the degree of its efficacy. It's also possible that two patients with the same diagnosis may find that different cannabis products—with different ratios of CBD, THC, and other chemicals—will be more effective for each of them. That being said, since CBD has been all but absent or in extremely low quantities until recently, the advent of new strains that are high in this healing chemical is advantageous to many.

The only difference between a high-CBD product that is "legal everywhere" and one that falls under medical marijuana laws is the amount of THC in it. The phrase "legal everywhere" is in quotes here because this is a gray area in many jurisdictions. It's possible that some high-CBD products that are legal today—or quasi-legal to the extent that governments are not stopping their sale—will be illegal in the future. Or, the tide could turn in a direction that I prefer with even more "legal everywhere" products that are high in quality and medically beneficial.

There are three basic types of high-CBD products currently available to patients:

- 1. High-CBD strains that are so low in THC that they are considered to be legal nutritional supplements and NOT medical marijuana in most jurisdictions.
- **2.** High-CBD strains that also contain a fair amount of THC and are **considered to be medical marijuana**.
- 3. High-CBD strains that are consumed in a raw form, usually as cannabis juice or cannabis oil that has been cold processed. In most jurisdictions, these strains are considered to be medical marijuana. (See the

sections on Raw Cannabis below and also later in this book.)

In the first category above are high-CBD cannabis products that contain only a tiny amount of THC and are now legally sold in many jurisdictions as hemp foods and nutritional products. Because these strains have been bred to have extremely low quantities of THC), the chemical compound that causes psychoactivity or a "stoned feeling," and naturally high quantities of CBD, they are referred to as *hemp* in the U.S.—and referred to by some as "marijuana's sober cousin" since it is not possible to get high from them. (I'll share more specifics on CBD, THC, and the other cannabinoids in a later chapter.)

While the U.S. government has not established standards for the level of THC that is allowed in nutritional hemp products, as of this writing "trace" amounts are acceptable, even though a specific limit is not given. Canada and Europe do set limits; Canada's current law says that the THC level in a nutritional or industrial hemp plant must be under 0.3 percent of the total cannabinoids, while 1 percent is allowed in Europe.

New Product Trends

As new strains of cannabis are developed to address specific health conditions, there are two product trends that have become popular—cannabis oil and raw cannabis, both of which are covered in more detail later in this book. As an introduction, here's a brief overview:

Cannabis Oil

Earlier, I told you about *cannabis oil*, a concentrated cannabis product that is extremely potent. How does its potency compare with

more traditional ways of taking cannabis, such as smoking a joint? One expert suggests that a patient who smokes marijuana joints would need to smoke hundreds per day to get the same benefits as one day's dosage of the more-potent cannabis oil. No one really knows *why* this type of oil is so much more potent than other forms of cannabis. Yes, it is concentrated, but so are other medical cannabis products.

One medical cannabis expert suggested to me that there may be some type of quantum physics transmutation going on in the extraction and processing of the oil that adds to its potency. That made me think about homeopathic remedies. While the process of making cannabis oil is totally different from the dilution and potentization process for homeopathic remedies, in both cases the result is a substance that's much more potent than it would be otherwise. We don't really know *why* this processing makes cannabis so potent, but I do know that many credit this oil, and products made from it, for their healing.

Cannabis oil can be made from any strain. Also, as you'll learn in Chapter 18, some cannabis oils are made with cold processing methods rather than heat. When manufactured with the proper methods, cold processing creates a cannabis oil that is non-psychoactive because it is technically still in its raw state. It is available in a syringe or small screw-top container. The type of syringe used for this purpose doesn't have a needle; just a tube with a cap on the end that is removed when you use it. Then, when you press on the syringe's plunger, the cannabis oil is pushed through it and out of the open end of the tube. The cap is then replaced until the next time you dispense oil from the syringe.

Cannabis oil can be taken on its own and it is also available in products such as capsules, lozenges, ointments, and suppositories. Until recently, most cannabis oil was very high in THC; however, as I mentioned earlier, new cannabis oil products that have been manufactured with cold-processing methods are now available. Since

the cannabis is not actually heated in the processing, it is still in a raw state. That means it contains the precursor chemical THCa, which does not cause psychoactivity. These new raw products also contain high levels of CBD and also other cannabinoids such as CBG, which are more healing for some conditions.

Cannabis oil is also known by a host of other names. Because of his pioneering work with this type of oil, you'll notice that some of those names pay homage to Canadian farmer Rick Simpson: Rick Simpson Oil, Rick Simpson's *Hemp* Oil, RSO (for Rick Simpson Oil), RSHO (for Rick Simpson Hemp Oil), Hash Oil, or Honey Oil. For clarification, the use of the word *hemp* in the names of some of these oils is a bit confusing because, as I've said before, in the U.S. and some other parts of the world, *hemp* refers to strains of cannabis that are used only for nutritional and industrial products. However, in Canada, where Simpson is from, all types of cannabis are referred to as *hemp*, including those that are used for medicinal purposes.

At this point in time, without uniform standards for medical marijuana, the quality of any cannabis product depends on the professionalism and ethics of the manufacturer who is selling it. Some products that have no connection with Simpson use his name or the initials RSO or RSHO as a marketing tool. And sadly, many products, including some that erroneously imply a connection to Simpson, have been found to contain toxic metals, mold, and/or pesticides, which can be harmful to any patient. In this book, it is my goal to provide you with the information you need to be discerning in making these choices.

Raw Cannabis

Dr. William Courtney of Northern California is at the forefront of the raw cannabis movement, which I find promising because of the many stories of results with raw cannabis juice and other raw products. The biggest difference with raw cannabis products compared to all other forms of cannabis is that *psychoactivity* rarely occurs when cannabis is raw. The reason for this is the fact that raw cannabis contains little to no THC, the chemical that causes psychoactivity. Instead, raw cannabis contains THCa, the "acid" form of THC, which is a biosynthetic precursor to THC, as well as CBDa, the "acid" precursor to CBD. As with all cannabinoids, THCa and CBDa have unique healing benefits; however, the "acid" form of these chemicals may not be efficacious for all patients.

I'll go into more detail on raw cannabis and also discuss the rare cases in which it can cause psychoactivity in Chapter 19.

New Strains and Options that Cause NO Psychoactivity or LESS Psychoactivity

New cannabis product options are available with a low amount of THC (tetrahydrocannabinol). In most cases, they produce less psychoactivity OR no psychoactivity. Below is an overview of the types of products that fall in this category. However, please keep in mind that a low-THC product may not be efficacious for you. I'll explain more on all of this in later chapters.

1. New High-CBD Strains of Cannabis

As we reviewed earlier in this chapter, new strains that are high in the chemical CBD (cannabidiol) are getting a lot of attention because of its numerous healing properties. High-CBD cannabis is now available in two sub-categories; the major difference between them is the amount of THC they contain—and that, in turn, relates to the level of psychoactivity they may cause. The sub-categories are:

A. Nutritional Supplements that Cause NO Psychoactivity

Some high-CBD strains contain such a small amount of THC—less than one percent in most cases—that they should not cause psychoactivity; these strains are generally referred to as "hemp" rather than marijuana or cannabis. They **do not** fall under medical marijuana laws in most jurisdictions and, therefore, are legally being sold as nutritional supplements. However, the legality of these products is a gray area right now, with some medical marijuana experts concerned that the U.S. government will crack down on them.

B. Medical Cannabis Products that Cause LESS Psychoactivity

Another category of newer high-CBD products contains enough THC to cause *some* psychoactivity, therefore they are legally considered to be marijuana. However, these strains have been bred to have a much higher amount of CBD, the chemical that has considerable healing benefits.

2. Raw Cannabis Products

Raw cannabis also fits in this category because, as discussed in the section above, when it's raw—and has not been exposed to heat—cannabis almost never causes psychoactivity. (See Chapter 19 for the rare exceptions to this.)

About the Author



Norma Eckroate is a medical marijuana patient and a writer. She has co-authored numerous books, including the bestselling The Natural Cat with Anitra Frazier and The Dog Whisperer and The Puppy Whisperer, both written with Paul Owens. Eckroate has coauthored nine other books on a variety of topics, including three books with stress management and brain optimization expert, Dr. Jerry V. Switched-On Living, Switched-On Teplitz: Selling, and Switched-On Networking. She became a licensed spiritual practitioner at the Agape International Spiritual Center in 2001 and has also worked extensively in theatre and television. Eckroate lives with her two cats in Los Angeles.

I hope you found these free chapters helpful. To read the rest of the book, please visit Amazon.com, BarnesAndNoble.com or your local bookstore. And please send your friends to www.NormaEckroate.com for more information.

Endnotes

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