Medical Cannabis for End of Life Doulas

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Instructional Design Project, Capstone II
Master of Science in Medical Cannabis Science and Therapeutics
University of Maryland, School of Pharmacy

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Class of 2023

Table of Contents

"[T]here is finite time left - does a dying person really want to waste a full day being jacked up on too much THC? Does a dying person really have time to waste being in pain?"

"They don't like the trial and error method as they experiment. There seems [to be] little authoritative guidance."

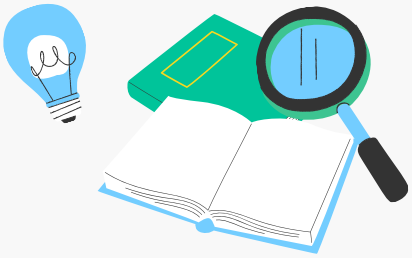
"I think they are worried about getting high."

"Providers are concerned about addiction and reluctant to offer."

"Is it legal?"

If you picked this up, you probably share some of the same questions as the 85 other End of Life (EOL) Doulas who helped inform this work. Almost half of those surveyed have been practicing for over 5 years and over 70% were over the age of 46. From all over the country, these EOL doulas possessed a range of licenses and certifications, but had similar gaps of knowledge when it came to the relevance of medical cannabis to their work. This pamphlet aims to provide evidence-based, digestible information that you can understand and then relay to clients and their families. Please feel free to print and share this resource with your communities of care.

I Section One: Still Calling It Grass?



It is high time to reimagine cannabis use. Since the discovery of the endocannabinoid system in 1988, high-quality studies on cannabis have pointed to a wide range of benefits. Much more research is needed — and with the signing of the Medical Marijuana and Cannabidiol Research Expansion Act in December 2022, more U.S.-based research is on the way.

The reality is: medical cannabis is not the same as the "grass" of previous generations. THC potency has increased, new derivatives have been created in labs, and scientists have developed novel ways of absorbing cannabinoids into our bodies.

The scientific consensus is that cannabis is medically useful. It's been five years since the FDA approved Epidiolex for patients 1-year-old and up. However, that consensus is not yet shared by the practicing medical establishment or the community at large. Stigma remains, and the legal status of the plant contributes to that stigma.

To make it more complicated, the legal status is rapidly changing. As of this writing, 37 states and Washington DC have medical cannabis programs. About half of the U.S. population now has access to adult-use cannabis. Yes, cannabis is still federally illegal because of the Controlled Substance Act (CSA) of 1970. So, how are these state programs legal?

There are clauses, court cases, and memos that answer this question more in-depth, but put simply, medical cannabis is legal because:

1. The Federal government has never said in court that the CSA overrides state law. It's now been decades since California legalized medical cannabis in 1996, and the Department of Justice (DOJ) has never brought a case.
2. The 10th amendment of our U.S. Constitution says that power resides with the states (if you're curious, look up the "Reserved Powers Doctrine" and "dual sovereignty").
3. Since 2014, every year the U.S. Congress has passed a special rider in the budget bill that ties DOJ funds to protections for state medical cannabis programs and participants. The DOJ cannot go after rule-following medical cannabis patients without the risk of losing money.

Each state has its own rules and qualifying conditions when it comes to medical cannabis, so make a point to look up your particular state here: **https://norml.org/laws/medical-laws/**. Many states offer protections and licenses for caregivers, which would be appropriate for EOL doulas. A general rule of thumb is to 1) register as a patient or caregiver with the state, 2) consume only at the home residence, and 3) keep the medicine in a locked and/or childproof container.

I Section One: Still Calling It Grass?

To help get your mind wrapped around all this new information, here are sample client dialogues. A few journal pages follow to give you space to write down other potential client questions and your responses.

Dialogue #1
Howard: I haven't had a bowel movement in 3 days.
Doula: That's rough, Howard. I'm sorry to hear that. You know, some of the medicine you are taking could be contributing to that.
Howard: At this point, I'd rather crap than down all these pills.
Doula: Could I share some information with you about an alternative?

Dialogue #2
Doula: How's the pain today?
Sonia: It is worse. I don't know what to do. I don't want to take more pills and be even more out of it.
Doula: I understand. If you're open to it, I'd like to share some information with you about pain management and medical cannabis.
Sonia: But I don't want to get high. That's why I don't want to take more pills!
Doula: I hear that, and there are specific formulations and products we can look for together that would minimize that possibility. Many patients find clarity and serenity.

Dialogue #3
Doula: I can see you didn't eat much of breakfast.
Brenda: It's been tough for me to eat. Nothing looks good.
Doula: I understand. I know you are a big foodie though! You shared that with me when we first met. There might be something we can do to help make mealtime more appealing again.
Brenda: Tell me more!
Doula: You might have heard about medical cannabis? Well, it's available to you and totally legal under compassionate care.

Section One Journal

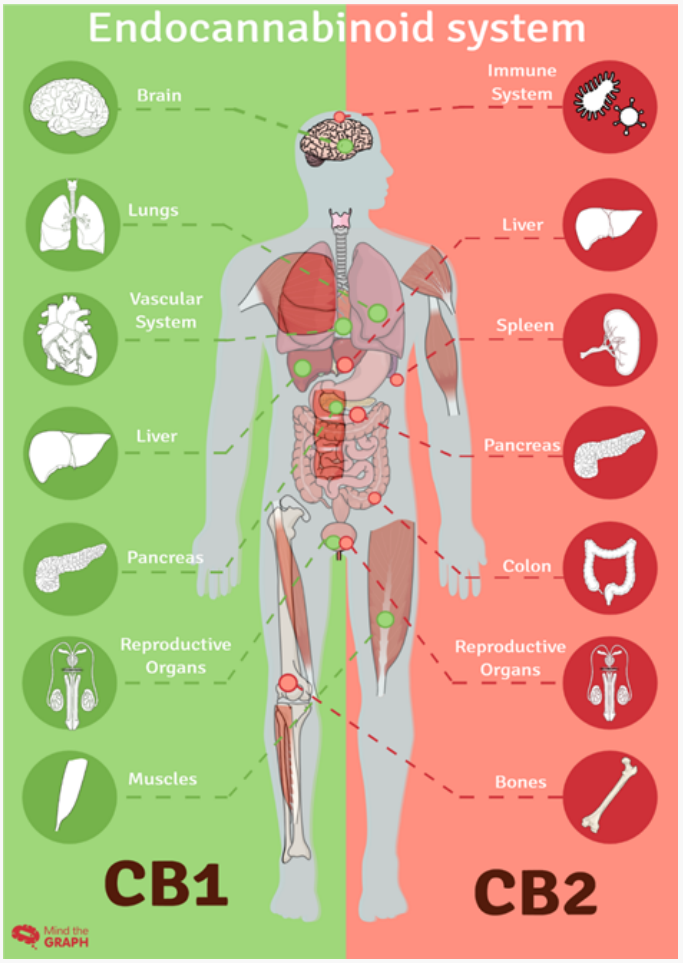
What sort of questions have you had from your clients? Provide 3 examples below, then work through potential responses. Preparing ahead of time will help lessen any anxiety or discomfort you or your client may have while discussing medical cannabis.

II Section Two: The Endocannabinoid System

Like the cardiovascular or respiratory system, the endocannabinoid system involves and recruits the entire body. Unlike these other systems, it is not associated with any one particular organ. It works to bring the entire body into *homeostasis*, or balance. It influences our:

- memory
- mood
- metabolism
- immunity
- perception of pain
- quality of sleep, and the list goes on...

Our bodies act as custom pharmacies, mixing up hormones and drug combinations for our immediate needs. Anandamide, also known as the “bliss chemical,” is a cannabinoid that our body makes — one of the reward drugs that help keep us alive. THC, the main component of medical cannabis, mimics the effects of anandamide and interacts with the same receptor sites in our endocannabinoid system.



The endocannabinoid system may be new to you because it was only discovered in the 1990s. Scientists know where the receptor sites are in the body, but are still learning what they do.

How did cannabis know to make THC and other cannabinoids? Well, we’ve co-evolved with the plant for thousands of years. Theories abound. What we do know is that CB1 receptors are primarily in our brains and central nervous system. CB2 receptors are found all throughout the body, in organs, bones, in our nerve endings, interacting with our immune system and more.

II Section Two: The Endocannabinoid System

There are hundreds of compounds that exist in cannabis. You've definitely heard of CBD (cannabidiol) and by this time, you've probably seen CBN (cannabinol) or CBG (cannabigerol) pop up on packaging. These compounds are referred to as secondary cannabinoids, as they are also found in cannabis, but in lesser amounts than THC. Terpenes are another medically significant compound in cannabis. Commonly found in nature, their "pharmacological effects are legion" (Russo, 2017). All of this works together to address health issues, but how they do so is still a mystery. Common sense (and the theory of "the entourage effect") indicates that the sum is greater than its parts, but this is still an active area of research.

Other compounds like terpenes, flavonoids, and antioxidants also make up the approximately 582 compounds identified (so far!) in cannabis. If you're working with a distillate/distilled cannabis product, it will only contain THC or CBD or whatever's listed on the label. But, if you're working with flower and organic whole plant matter, you'll get all of the above.

This is why you should familiarize yourself with Certificates of Analysis (CoAs). Reputable growers and manufacturers will always include a link to their CoA on the packaging and on the product webpage. Good manufacturing practices and traceability are of the utmost importance when dealing with medically fragile individuals. When faced with a glut of products, guide your client to choose the one with the most informative and updated COA (the batch and testing date should be within the last calendar year). There are also ways to test at home to verify the data in the COAs. While not cheap, these testers are widely available online (see **tcheck.me** for example). A few real CoAs follow with annotations.

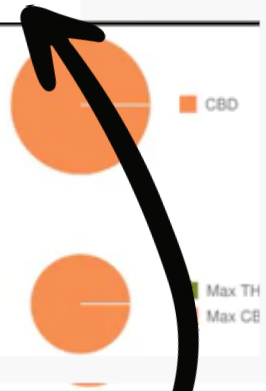
This COA is for a CBD edible, a hard candy. A photo of the product accompanies the excerpted information. Helpfully, this COA is broken down by serving rather than overall weight. You can easily understand what quantity of CBD you can expect in each candy. This COA exists to put the reader's mind at ease that there is no THC in this candy, so they should not expect psychoactive effects (no "high").

mcr LABS

Cannabinoid Profile 03/01/2019

Atlantic Sea Salt

Cannabinoid	mg per serving	Weight %
THC	Not detected	Not detected
CBD	14.88mg	0.2%
CBN	Not detected	Not detected
THCa	Not detected	Not detected
Total	14.88mg	0.2%
Max THC	Not detected	Not detected
Max CBD	14.88mg	0.2%



MCR Labs, LLC 85 Speen Street Framingham, MA 01701
508.872.6666 info@mcrlabs.com www.mcrlabs.com

This COA includes the testing date but does not include a batch number. It also does not show any additional testing for molds or toxins. This would not be a product to recommend for medicinal use as traceability and safety measures are lacking. It also appears that they excerpted only part of the whole test sheet.

This COA is for a soft chew, and unlike the previous example, this manufacturer included the entire sheet from their tester, Steep Hill Oklahoma. It includes a photo, batch number, dates received and tested. This data is for 6 chews, so this could lead to some confusion about individual dosage.

Certificate of Analysis

Powered by Confident Cannabis 1 of 3

Bison Extracts
5805 E 15th St
Tulsa, OK 74112
necolecantu@live.com
(918) 830-4392
Lic. #PAAA-4KW0-GFNQ

Sample: SHOK22110803.3952
Strain: Strawberries & Cream
Batch#: 173420221110; Sample Size: 6 units
Sample Collected: 11/18/2022; Sample Received: 11/18/2022 Report Created: 11/28/2022
Sampling: ; Environment:

Monarch 25mg - Strawberries & Cream - Bison Blaze - 45g

Ingestible, Soft Chew
Harvest Process Lot: ; METRC Batch: 1A40E010000090C000001734; METRC Sample: 1A40E010000090C000001759

Safety

Pesticides	Microbials	Mycotoxins	Solvents	Metals	Foreign Matter
Pass	Pass	Pass	Pass	Pass	Pass

They've tested on the safety measures, which is a big plus.

Potency

Total THC	Total CBD	Moisture	Water Activity
26.624 mg/unit	1.559 mg/unit	NT	Not Tested NT

Terpene Aroma

Cinnamon	Chamomile	Wood	Apple	Hops	Total Terpenes
					0.014%

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https://www.steephillok.comMary-Inez Atherton(866) 506-5866
Lic# LAAA-NJT2-DMOG Laboratory Directorwww.con dentcannabis.com

Accreditation #: 108156

ND=Not Detected, NR=Not Reported, LOD=Limit of Detection, LOQ=Limit of Quantitation. This product has been tested by Steep Hill Oklahoma, using valid testing methologies and a quality system as required by state law. Values reported relate only to the product tested and batched under the batch number identi ed above. Steep Hill Oklahoma makes no claims as to the ef cacy, safety, or other risks associated with any detected or non-detected level of any compounds reported herein. This Certi cate must not be altered, and shall not be reproduced except in full, without the written approval of Steep Hill Oklahoma. Decision Rule: Statements of conformity do not take measurement uncertainty into account.

This product is THC dominant at approximately 25:1 ratio. They don't share the scientific terpene info, but with some homework you could figure out which "aroma" corresponds with which terpene. The hops icon likely refers to Beta-pinene (or β-pinene). Beta-Caryophyllene is known to be woodsy.

This COA is for a concentrate (aka tincture), There is no photo accompanying this COA but you would expect the product to be in a bottle with a dropper. This COA has not been tested for moisture or any of the standard mold or pesticides. They have shared the entire sheet, so the reader can be confident nothing has been edited out.

Pinnacle CT, inc.
Cannabis Testing You Can Depend On

Certificate of Analysis

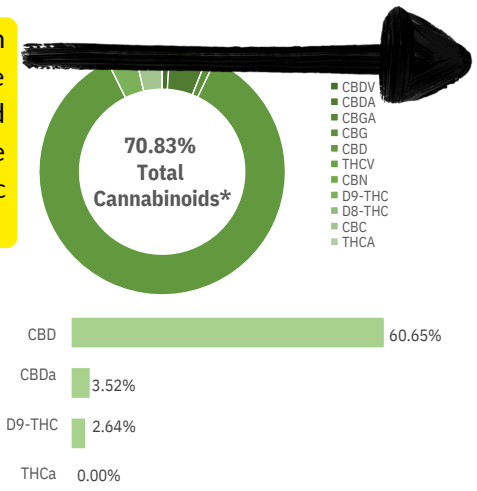
Specimen #: 2395-1

57 Aileron Ct. Westminster, MD 21157
Phone: 410-231-7900
Laboratory Director: Timothy Schnupp, PharmD
MMCC ID#: L-18-00001

Sample Name:	Frosted Kush Extract	**Customer Lot #:**	DC2110141651
Customer Name:	Acknowledge Farm	**Sample ID:**	2395-1
Sample Type:	Concentrate	**Parent Pkg ID:**	N/A
Date Sampled:	10/15/2021	**Licensee Contact:**	24-040
Date Tested:	10/16/2021		

CANNABINOID PROFILE

An extraordinarily rich cannabinoid and terpene breakdown. This would be very helpful if you're looking for specific secondary cannabinoids.



Moisture	NOT TESTED		
Analyte	LOQ	Mass %	Mass mg/g
CBDV	0.08	0.71	7.10
CBDA	0.08	3.52	35.20
CBGA	0.08	ND	0.00
CBG	0.08	0.78	7.80
CBD	0.08	60.65	606.50
THCV	0.08	ND	0.00
CBN	0.08	ND	0.00
D9-THC	0.08	2.64	26.40
D8-THC	0.08	ND	0.00
CBC	0.08	2.53	25.30
THCA	0.08	ND	0.00
THCVA	0.08	ND	0.00
CBNA	0.08	ND	0.00
CBCA	0.08	ND	0.00
Total		**70.83%**	

Total Cannabinoids	**Mass %**	**Mass mg/g**
Total Potential THC**	2.64	26.40
Total Potential CBD**	63.74	637.37

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)

* Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.
**Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxly group during decarboxylation step.

Total THC= THCa * 0.877 + D9-THC; Total CBD = CBDa * 0.877 + CBD

Cannabinoid potency values are reported by percentage of dry weight determined via loss on drying; Unless otherwise stated all quality control samples performed within specications established by the Laboratory.

FINAL APPROVAL

Timothy Schnupp
Laboratory Director

ACCREDITED
CERT #5470.01

Sample collection methods and uncertainty of measurement associated with results reported in this certificate are available upon request. Cannabinoids measured by HPLC-UV. Terpenes measured by GCMS. Microbes measured by culture-based methods. Mycotoxins and pesticides measured Sample collection methods and uncertainty of measurement associated with results reported in this certificate are available upon request. Cannabinoids measured by HPLC-UV. Terpenes measured by GCMS. Microbes measured by qPCR/culture-based methods. Mycotoxins and pesticides measured by LCMS. Heavy Metals analyzed by ICPMS. Water Activity measured by water activity meter; moisture content by LOD. Unless otherwise indicated, results were reviewed and verified by the Lab Director, and issuance of this CoA was authorized by the Lab Director. Action limits set according to MMCC Technical Authority for Medical Cannabis Testing, 15 November 2019. Results valid only for the exact material sampled and analyzed. Specimens stored in a cool, dry place if not analyzed immediately.

Date Reported: 10/18/2021

This COA includes accreditations for good manufacturing practices (very important!) and fine print explaining how they test for certain properties. With the addition of mold and pesticide testing, this would be an ideal COA.

II Section Two Journal

Try to explain the endocannabinoid system in your own words. *Focus Suggestion*: Consider the ways our bodies are built to help us, even at the end of life.

II Section Two Journal

III Section Three: Chemotypes and Common Concerns

In this section, we will get into specifics: the end-of-life symptoms that medical cannabis is most suited to treat, different formulations of medical cannabis, dosing, and drug-drug interactions. This is where the vast majority of doulas requested guidance, and while the average doctor may be ignorant of treatment protocols, **protocols do exist.** Much of this chapter borrows from *The Cannabis Health Index* by Uwe Blesching, PhD, which is accessibly written and should be on the top of your list for further reading. An excerpt (which includes a dosing chart) from Blesching's "Evolving Criteria for Turning Cannabis Into Precision Medicine" can be found in the Resources section.

You have likely heard of different “strains” of cannabis (names like Purple Haze or Pineapple Express). You may have even heard of indica versus sativa. In large part, these names or classifications are meaningless marketing tools. All cannabis shares the same DNA. What you should focus on is **chemotype**. The main cannabinoids in the plant are THC and CBD, and your first step is determining the chemotype with the right ratio of these two cannabinoids.

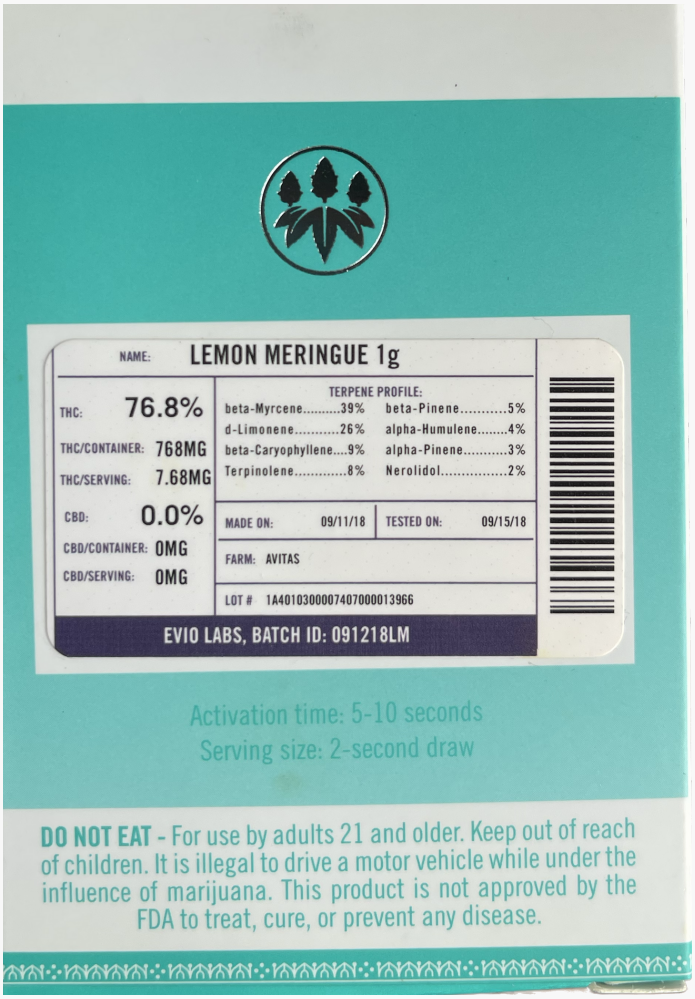
Chemotypes I, II, III

Type 1: More THC than CBD

Type 2: Equal amounts

Type 3: More CBD than THC

Product Examples



This vape pen cartridge is Chemotype 1.

These infused gummies are Chemotype 2.

These sour chews are Chemotype 3.

This CBD oil is a distilled topical product with zero THC.

III Section Three: Chemotypes and Common Concerns

Some of the EOL Doula survey respondents shared worries about addiction or client aversion to feeling "high." THC does activate our reward systems, so there is a risk of dependence. This risk is minimal compared to drugs like Ambien ("Z drugs"), benzodiazepines, or opiates. The World Health Organization concluded there is no evidence of tolerance or dependence when it comes to CBD. If the client is concerned about dependence, steer them towards CBD-dominant chemotypes or pure, distilled CBD.

In the following pages, specific formulations are identified for common concerns. This is not an exhaustive list as new forms are being invented as you read (like micro-dose oral mists or nano-infused water, for example). The forms available to you also vary widely depending on your state. Bioavailability -- or how much of the cannabis reaches systemic circulation -- depends on an individual's weight, metabolism, and tolerance or familiarity with the drug. Inhaling vapor or smoke is the quickest way for the drug to enter the bloodstream. Onset usually happens within minutes and the effect lasts from 2-4 hours. This form is most similar to an IV injection, as it skips metabolism by the liver. Edibles, lozenges, and beverages have a slow onset (typically about 90 minutes) and the effects last much longer, anywhere between 4-30 hours. Everyone's gut is different, though having a full stomach will generally increase absorption. Patches, salves, and lotions applied topically do not reach the bloodstream, and act directly on the most immediate nerve endings. Products labeled transdermal sometimes also have an irritant in order to penetrate the skin for better absorption (and thus, may result in mild psychoactive effects).

Polypharmacy is always a concern with older clients, especially when attempting to integrate conventional and alternative medicine. Medical cannabis metabolization relies on the same liver enzymes (CYP P450s) that are needed to process Plavix, Celexa, Prozac, Paxil, Prilosec, Zoloft, Topamax, to name a few brandnames. Beware of anti-depressants, blood thinners, beta blockers, statins, anti-coagulants, or benzodiazepines. Taking medical cannabis in conjunction with certain medicines, herbs, or supplements can result in liver or kidney issues. While medical cannabis is not life-threatening by itself, serious adverse effects are possible when pharmacokinetics come into play.

III Section Three: Pain

PAIN

Form

Dried flower, edibles, suppositories, transdermal patches, sublingual oil, or metered dose inhalers

Dose Range

5-20mg+ of THC

0-5mg+ of CBD

Chemotype

Chemotype 1 - THC dominant

Secondary Cannabinoids and Terpenes

CBG, CBC, CBDA

β-caryophyllene, Linalool, Eucalyptol, Myrcene

If your client is suffering from pain (neuropathic, chronic, joint, cancer-related) there is growing evidence that THC can provide relief. Evidence also suggests that this THC-induced pain relief contributes to better sleep. Dose depends on the intensity of pain, but a low to medium dose is a good place to start. Of particular relevance to EOL and hospice workers, "when THC and morphine are coadministered, ¼ the dose of morphine is required to reach significant reductions in pain" (Russo, 2017).

Many different forms will work for pain. However, smoking or vaporizing is always the best option for immediate relief. Patches and suppositories have the added benefit of partially skipping metabolism by the liver, which could be a major plus if there's concern about drug-drug interactions. A patch can also be directly applied to a pain point. A helping hand from secondary cannabinoids and terpenes will go a long way towards addressing pain, so make the extra effort to search them out.

III Section Three: Nausea / Appetite

NAUSEA

Form

dried flower, edibles, vaporizer, or metered dose inhalers

Dose Range

0.5-10mg of THC

0.5-10mg+ of CBD

Chemotype

Chemotype 1 - THC dominant

Chemotype 2 - Equal ratios

Secondary Cannabinoids and Terpenes

CBDV

Limonene, β-caryophyllene, Humulene

Treatment of nausea and loss of appetite were some of the first clinically approved uses of medical cannabis. Study participants have "found that food looked better, appetite improved, and calories increased" (Braun, 2021). Appetite stimulation comes about when the CB1 receptors are activated, so the best chemotypes for this issue involve THC. Have clients look for CBD and CBDV as helper cannabinoids, and avoid THCV (fun fact: tetrahydrocannabivarin has been involved in weight loss trials!).

Forms that skip ingestion are likely to be preferred. High-quality vaporizers (such as the Volcano Medic from Storz & Bickel) could be worth looking into. Metered dose inhalers are wonderful for precision but could be harder to source depending on your state's medical program. A low to medium dose taken 30-60 min before mealtime is a good starting point.

III Section Three: Constipation / GI Issues

GI ISSUES

Form

edibles, suppositories, sublingual oil

Chemotype

Chemotype 2 - Equal ratios

Chemotype 3 - CBD dominant

Dose Range

0-5mg+ of THC

5-20mg+ of CBD

Secondary Cannabinoids and Terpenes

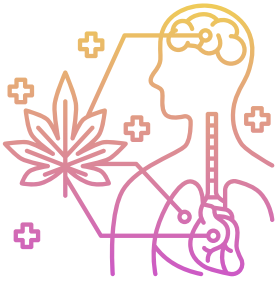
Limonene, Geraniol, Pinene, β-caryophyllene

One of the unfortunately common side effects of opiates is constipation and gastrointestinal issues. The satisfaction of a good bowel movement is certainly not to be overlooked at end of life! Cannabis has been used to treat gut issues for millennia (see the earliest Chinese medical texts), and there are fascinating links currently being made between IBS-sufferers and endocannabinoid deficiency. "[O]ur current knowledge of CB2 receptors in the gastrointestinal tract highlights its role in regulating abnormal motility, modulating intestinal inflammation and limiting visceral sensitivity and pain. CB2 receptors represent a braking system and...receptor activation therefore represents a very promising therapeutic target in gastrointestinal inflammatory states..." (Wright, 2008).

Edibles and suppositories are the most targeted form for this issue, with suppositories tending to have a faster onset. Depending on the carrier oil, sublingual oil might have additional benefits too. Since CBD can be tolerated in very high doses, the client could titrate upwards until they reached the desired outcome without fear of adverse effects.

III Section Three: Depression and Anxiety

MOOD



Form

flower, vaporizers, edibles, sublingual oil, or metered dose inhalers

Chemotype

Chemotype 1 - THC dominant

Chemotype 2 - Equal ratios

Dose Range

0.5-10mg+ of THC

0.5-10mg+ of CBD

Secondary Cannabinoids and Terpenes

Linalool, Pinene, Limonene

While it's completely expected to feel anxiety and sadness about approaching death, many clients may need to be proactive about experiencing joy. Some might feel liberated to enjoy cannabis for the first time. Scientific evidence is mixed as to whether medical cannabis alleviates or exacerbates mood disorders, but more recent studies tend to land in the positive column. In one recent study, patients using medical cannabis showed "an overall improvement in sleep quality and duration, as well as a decrease in PTSD symptoms" for treatment resistant combat PTSD (Nacasch, 2023).

As in every case, starting with the lowest possible dose is the best advice. If the client is completely new to cannabis and/or anxious, using the metered dose inhaler for precise dosing is ideal. A low dose edible taken at regular intervals could help achieve a "steady state" for those looking for mood elevation.

IV Section Three Journal

After digesting all of this data, try to rewrite general non-medical advice into your own words. Also note any common client issues that were not included above for further independent research.

III Section Three Journal

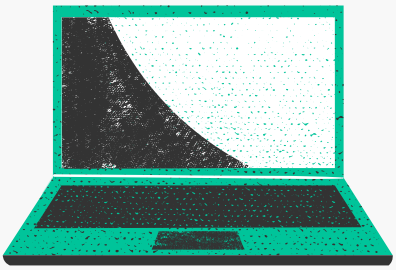
III Section Three Journal

IV Section Four: Resources

The U.S. medical cannabis industry is expected to top $13 billion in retail sales in 2023 (MJ Biz Daily). If your clients aren't already asking for information and referrals, they will be soon. As the field of research is constantly evolving, up-to-the minute research will be necessary. This pamphlet should only serve as a starting point. When you are searching for your own evidence, remember to look for TRAAP: **Timeframe** (when was this research published?), **Relevance** (does this address my specific concern?), **Authority** (is this truly an expert?), **Accuracy** (has this been peer-reviewed? is this a systematic review?), **Purpose** (why was this written? was it funded? what bias could exist?). Below are a few names and organizations that were repeatedly referenced in the University of Maryland's Master of Science in Medical Cannabis Science and Therapeutics program.

Trusted Researchers

- Ethan B. Russo
- Mahmoud ElSohly
- Andrew Coop
- Justin Strickland
- Sophie Millar (S.A. Miller)
- Roger G. Pertwee
- Ruth Ross (see her TED Talk "Demystifying the endocannabinoid system")



Trusted Organizations

- Americans for Safe Access
- Society of Cannabis Clinicians
- NSF (NSF.org)
- American Botanical Council
- American Herbal Products Association
- Leafly

IV EXCERPT: Evolving Criteria for Turning Cannabis Into Precision Medicine, from *The Cannabis Health Index* by Uwe Blesching, PhD

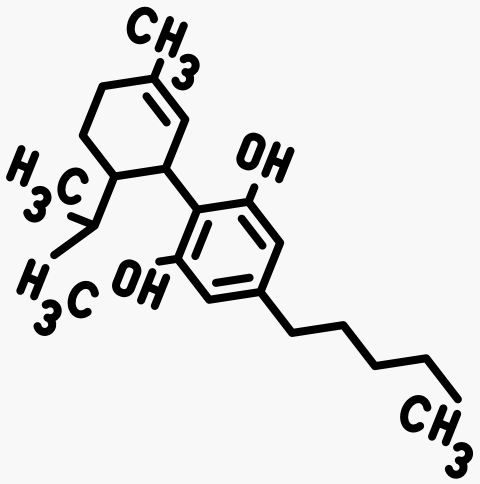
[W]orking with cannabis flower or whole plant cannabis-based therapeutics is complex and involves a number of variables beyond our control, such as speed of metabolizing (breaking down) of specific plant constituents, the speed with which cannabinoids (and their metabolites) move across the blood-brain barrier, or the number or concentration of cannabinoid receptor sites in all eleven organ systems, all of which can vary between one person and the next.

However, there are seven evolving criteria or steps that we have agency over[:]

Step 1 - Based on the current state of science as well as patient preferences determine the primary cannabinoid that is posited to yield optimal results
Step 2 - Determine the most supportive secondary cannabinoid to fine-tune patient outcomes
Step 3 - Choose the optimal ratio between primary and secondary cannabinoids to enhance desired effects or to mitigate adverse effects potential
Step 4 - Discern the appropriate dosage (mg) of each cannabinoid
Step 5 - Choose the form of cannabis that best supports each individual goals
Step 6 - Consider other synergistic cannabis constituents to create a complex entourage effect
Step 7 - Maintain a session log to track patient responses and progress

THC and CBD Dosing Ranges Used in Clinical Trials

	THC	**CBD**
Micro Dose	0.3mg	N/A
Low Dose	.05mg to 5mg	0.4mg to 19mg
Medium Dose	6mg to 20mg	20mg to 99mg
High Dose	21mg to 50+mg	100mg to 800+mg



IV Section Four Journal

To help forestall additional questions or demands for specific prescriptions, jot down a few local resources for medical cannabis counseling in your state. For example in Maryland, you could refer clients to Hempel Sanderoff Wellness: https://www.hswellnesscenter.com/

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