



**Compassionate Cannabis Clinic – Dr. Heather Auld**

1570 Colonial Blvd. Suite A.

Fort Myers, FL, 33907

Phone: (239)-208-6676

Fax: (239)-208-6676

**Patient ID Number:** \_\_\_\_\_

Free 90 day appointment: \_\_\_\_\_

**Your Recommendation expires 210 days from the date of your initial visit:**

**Your recertification visit is scheduled for:** \_\_\_\_\_

*If you are unable to attend this visit, please call the office to reschedule. If you have passed the expiration of your 210 days, you will not be able to purchase at the dispensary – even if your ID card is active and up to date. **Both are required to be active at all times to make a purchase.***

**Your Medical Cannabis ID card MUST be renewed annually.**

You can re-submit your application 45 days prior to your card's expiration date at the following website:

**[www.mmuregistry.flhealth.gov](http://www.mmuregistry.flhealth.gov)**

**Your login information is:**

**Username:** (your email address)

**Password:** \_\_\_\_\_

1. Until you know the effects of the medication recommended, remember to start low, and go slow. As you become more acquainted with cannabis and it's effects, you can better gauge your level of therapy necessary.
2. If you're ever experiencing an adverse effect after taking cannabis – focus on your breathing and calm yourself. A quick sniff of black pepper, or chewing on a peppercorn is known to reduce effects of THC. Additionally, a dose of low-THC cannabis (meaning CBD dominant strains and/or hemp products) can counteract the effects of THC.
3. Keep a cannabis journal, and make sure you notate your experiences with therapy.



## Cannabis Basics

### Step 1: Understanding the Cannabinoid Profile “The Entourage” + Terpenes

#### **THC (The Activator)**

- Only psychoactive cannabinoid
- Creates the “high”
- Helps to inhibit cancer growth
- Natural Expectorant
- Neurostimulant
- Start low and go slow

#### **CBD (The Regulator)**

- Non-psychoactive
- Suppresses the “high”
- Anti-inflammatory
- Anti-epileptic
- Neuroprotective
- More is better

### Step 2: Learning about Strain Variety

#### **Sativa** - Daytime Use Suggested “An herbal cup of coffee.”

Energy	Clarity	Mental Stimulant
Focus	Bliss	
Creativity	Uplifting	

Best used in the treatment of depression, lethargy, nausea, glaucoma, headaches, fatigue, confusion, and inflammation.

#### **Indica** - Nighttime Use Suggested “A glass of herbal red wine.”

Sleepy	Calm
Relaxed	Stimulates appetite
Euphoric	Happy

Best used in the treatment of anxiety, pain, stress, neuromuscular issues, insomnia, appetite issues, arthritis, post-traumatic stress disorder.

#### **Hybrid** - Along the Sativa and Indica Spectrum “The best of both worlds.”

Hybrid blends are useful for a variety of different conditions and can produce a variety of effects based upon the genetic combination of the strains of cannabis it contains.

### Step 3: Websites for Info

[www.leafly.com](http://www.leafly.com)    [www.weedmaps.com](http://www.weedmaps.com)    [www.ganjapreneur.com](http://www.ganjapreneur.com)

Notes: \_\_\_\_\_  
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## Topical Recipes

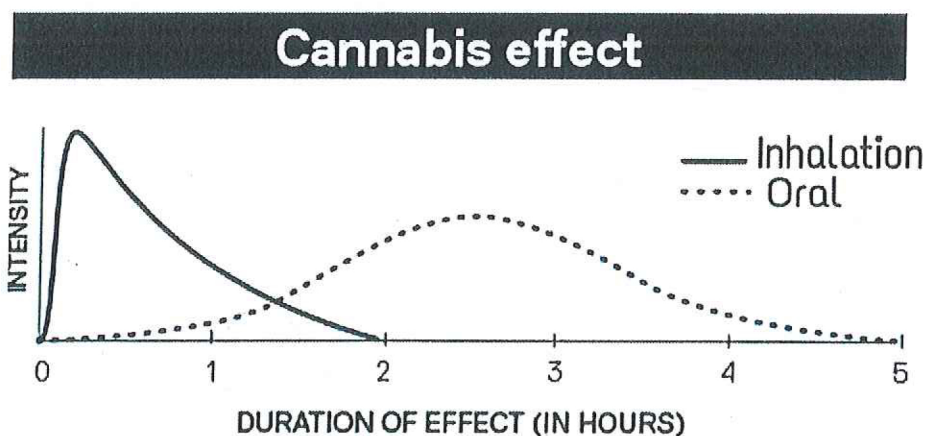
- 1-One Fluid Oz. Bottle of Tincture (1:1 preferred, but different concentrations can be used for specific applications)
  - 1-8 to 12 Oz. bottle of CeraVe or other like hypoallergenic lotion.
1. Dump approximately 1 oz. of lotion out of the bottle.
  2. Add full bottle of tincture directly to the lotion.
  3. Stir or shake thoroughly to combine.
  4. Stir or shake before use to ensure topical stays mixed properly.

It's important to note that any tincture can be used, but the patient should try to find the highest cannabinoid concentration available. A THC/CBD combination is great for reducing inflammation (as seen with psoriasis), while a lower CBD, higher THC concentration works better for pain. If the topical is being used for pain relief, a mentholated cream is recommended and the THC content should be much higher than CBD.

Additionally, concentrates such as TruClear can be used (especially if a higher concentration of THC is needed). To convert a concentrate to topical:

- Slowly heat 1 oz of olive oil in the microwave within a microwave safe jar or bowl, preferably with a lid. Small Rubbermaid containers work well, just don't snap the lid shut completely. Use 3-:30 second increments, stirring the oil after each heating increment.
- Holding the syringe in a nozzle-up fashion, heat concentrate syringe with a hairdryer on high for approximately :30 seconds to 1 minute. to decrease viscosity of the oil.
- Combine desired amount of concentrate into hot oil, stirring or shaking vigorously (if in a closed container).
- Add concentrated tincture oil to desired lotion, mix well.

Prior to use, shake the lotion bottle to ensure uniform combination of cannabinoid oils.



# What does my recommendation look like?

The doctor enters your order within the Physician Portal inside of the Medical Marijuana Use Registry. Florida requires physicians to specify dose in milligrams, regimen (number of times per day), and duration (up to 70 days).

In addition to the above, when physicians enter their recommendations into the system they must provide method of ingestion. The doctor can order up to two methods of delivery per dose and can select whether or not the patient can also purchase a "cannabis delivery device" such as a vape pen.

**The allowed methods of ingestion in Florida currently are inhalation (vape), oral (capsules), sublingual (under the tongue drops), topical (on the skin), or suppository (rectal) form.**

The physician must also create separate orders for low-THC (high-CBD) or medical marijuana (full potency).

Because Florida is forcing doctors to essentially write a prescription for a controlled substance (which is prohibited for physicians within the United States), Dr. Gordon has been providing a uniform dosage for all of his patients - both for low-THC and medicinal marijuana.

Once you have an active order into the system, the dispensaries will be able to see and verify your order when you call and will be able to talk to you about products and pricing. Note that patients that no show for appointments will have their orders automatically cancelled, and we can not resubmit orders until you've been seen by Dr. Gordon.

## What dispensary should I use?

Pricing, discounts, delivery fees, and product selection varies with each dispensing organization. We advocate doing some of your own research to see what products may fit your needs best, and then calling the dispensaries and asking informed questions. **Additionally, you're not legally bound to one dispensing organization.** You can fill your order in full or in partial with any dispensary.

Simple Google searches using your condition and cannabis within the search bar can yield a variety of results. Sites like leafly.com offer a comprehensive strain and condition database.

## Low-THC vs. Full Potency Marijuana

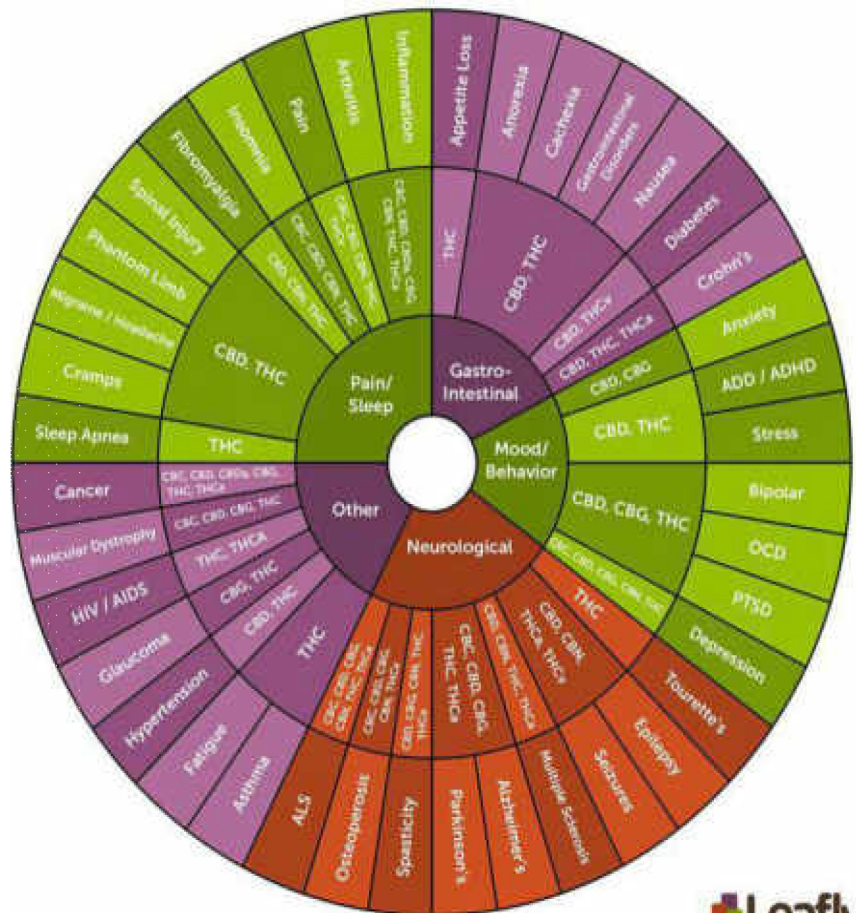
In many instances, a bad first experience may be enough for someone to tragically banish cannabis from his or her life forever. Typically, the reason for doing so has to do with the anxious, paranoid side effects associated with THC, but what first-timers might not realize is there are a few ways to minimize those unpleasant feelings. For those beginners, we've compiled three basic tips, tricks, and recommendations for finding that perfect first-time experience.

Both medical marijuana and low-THC cannabis are available currently within Florida.

Unlike THC, CBD is a non-psychoactive compound with relaxing and medicinal properties. CBD actually helps counteract the anxiety associated with THC, so it's a perfect starting point for new users.

The wheel to the right contains some common qualifying conditions and which combinations have been shown to be the most successful for treatment.

While some patients may not initially prefer the psychoactive effects of THC, it is a vitally important component of successful cannabis therapy. Science has identified what is known as the "entourage effect", a benefit found from the sum of all parts of the plants.





## How is Cannabis dispensed in Florida?

When you call or visit a dispensing organization, they'll look your information up within the Compassionate Use Registry and verify that you're a legal patient and what the doctor has ordered you.

When the doctor puts the order into the system, the daily dose and regimen is multiplied by the number of days of the order. For example, an inhalation order of 200 milligrams taken once per day for 70 days would equal 14,000 milligrams total (200 x 1 x 70), meaning the patient could purchase up to 14,000 milligrams of vape juice in that 45 day order period. **You do not have to purchase the full amount of milligrams with each order.** You are permitted to purchase the full amount or break it up into however many days you'd like to purchase.

Since medical marijuana and low-THC must be ordered separately, unless you specify otherwise to the doctor he will have placed both orders in the system for you.

## What do I do if I have an issue with the product?

If you have an issue with the product that isn't related to your health (poor quality, broken cannabis delivery device, missing product), you'll need to call the dispensary you purchased it from.

Should you have a question about your medication regimen, daily dose, or delivery method, feel free to call our office during normal business hours.

While drug interactions and negative side effects are rare with cannabis, they can occur. **If you are ever experiencing a health emergency, you need to call 9-1-1 immediately.** If you have any negative side effects, please call us as soon as possible.

## Tips For Beginners

Some common sense tips to reduce bad reactions from cannabis for beginners:

1. Until you know the effects of the medication on you, remember to **start low and go slow**. As you become more acquainted with cannabis and it's effects, you can better gauge your level of therapy necessary.
2. If you're ever experiencing an adverse effect after taking cannabis focus on your breathing and calm yourself. A quick sniff of black pepper or chewing on a peppercorn is known to reduce effects of THC. Additionally, a dose of low-THC cannabis can counteract the effect of THC.
3. Keep a cannabis journal and make sure you notate your experiences with therapy.



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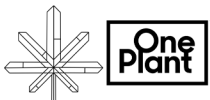
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NOTES:



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# Cannabis BASICS



Cannabis is a flowering plant that has fibrous stalks used for paper, clothing, rope, and building materials leaves, flowers, and roots used for medicinal purposes, and seeds used for food and fuel oil. Cannabis leaves and flowers are consumed in several forms: dried flower buds or various types of concentrated, loose, or pressed resin extracted from the flowers or leaves through a variety of methods. Once mature, the plant's leaves and flowers

are covered with trichomes, tiny glands of resinous oil containing cannabinoids and terpenes that provide physical and psychoactive effects.

## Cannabinoids

Concentrations or percent of each type of cannabinoid ranges widely from plant to plant and strain to strain.

The first identified and best-known cannabinoid is **THC (delta-9-tetrahydrocannabinol)**. THC has the most significant psychoactive effect of the cannabinoids. The ratio of THC to other cannabinoids varies from strain to strain. While THC has been the focus of breeding and research due to its various psychoactive and therapeutic effects, non-psychoactive cannabinoids have physiologic effects that can be therapeutic.

- **Cannabidiol (CBD)** relieves convulsions, inflammation, anxiety and nausea—many of the same therapeutic qualities as THC but without psychoactive effects. It is the main cannabinoid in low-THC cannabis strains, and modern breeders have been developing strains with greater CBD content for medical use.

- **Cannabinol (CBN)** is mildly psychoactive, decreases intraocular pressure, and seizure occurrence.
- **Cannabichromene (CBC)** promotes the analgesic effects (pain relief) of THC and has sedative (calming) effects.
- **Cannabigerol (CBG)** has sedative effects and antimicrobial properties, as well as lowers intraocular pressure.
- **Tetrahydrocannabivarin (THCV)** is showing promise for type 2 diabetes and related metabolic disorders.

In addition to cannabinoids, other cannabis plant molecules are biologically active. A few other molecules known to have health effects are flavonoids and terpenes or terpenoids (the flavor and smell of the strain). Cannabinoids, terpenoids, and other compounds are secreted by the glandular trichomes found most densely on the floral leaves and flowers of female plants

## Effects of Cannabis

Different people have different experiences. One individual may feel stress release, while another feels over-stimulated and stressed, while another feels energized and on-task. There are many factors that impact the effect:

- Amount used (dosage)
- Strain of cannabis used and method of consumption
- Environment/setting
- Experience and history of cannabis use
- Biochemistry
- Mindset or mood
- Nutrition or diet
- Types of Cannabis

Though cannabis is biologically classified as the single species *Cannabis Sativa*, there are at least three distinct plant varieties: *Cannabis Sativa*, *Cannabis Indica*, and *Cannabis Ruderalis*, though the last is rare. There are also hybrids, which are genetic crosses between *sativa* and *indica* varieties. Cannabis used for

fiber is typically referred to as hemp and has only small amounts of the psychoactive cannabinoid THC, usually less than 1%.

Genetic “breeders” of the cannabis seed have developed thousands of different strains of cannabis from these three varieties. There are marked differences between *sativa*, *indica*, and hybrid. Today, we mostly find hybrids. It can be difficult to find pure *indica* or *sativa*.

All types of medical cannabis produce effects that are more similar than not, including pain and nausea control, appetite stimulation, reduced muscle spasm, improved sleep, and others. But individual strains will have differing cannabinoid and terpene content, producing noticeably different effects. Many people report finding some strains more beneficial than others. For instance, strains with more CBD tend to produce better pain and spasticity relief. As noted above, effects will also vary for an individual based on the setting in which it is used and the person's physiological state when using it.



In general, sativas and indicas are frequently distinguished as follows:

### **Sativas**

The primary effects are on thoughts and feelings. Sativas tend to produce stimulating feelings, and many prefer it for daytime use. Some noted therapeutic effects from use of Sativas:

- ✚ Stimulating/energizing
- ✚ Increased sense of well-being, focus, creativity
- ✚ Reduces depression, elevates mood
- ✚ Relieves headaches/migraines/nausea
- ✚ Increases appetite

Some noted Side-Effects from use of Sativas:

- ✚ Increased anxiety feelings
- ✚ Increased paranoia feelings

### **Indicas**

Indicas tend to produce sedated feelings and many prefer it for nighttime use.

Some noted Therapeutic Effects from use of Indicas:

- ✚ Provides relaxation/reduces stress
- ✚ Relaxes muscles/spasms
- ✚ Reduces pain/inflammation/headaches/migraines
- ✚ Helps sleep
- ✚ Reduces anxiety
- ✚ Reduces nausea, stimulates appetite
- ✚ Reduces intra-ocular pressure
- ✚ Reduces seizure frequency/anti-convulsant

Some noted side-effects from use of Indica's:

- ✚ Feelings of tiredness
- ✚ "Fuzzy" thinking

### **Hybrids**

Strains bred from crossing two or more varieties, with typically one dominant. For example, a sativa-dominant cross may be helpful in stimulating appetite and relaxing muscle spasms. Crosses are reported to work well to combat nausea and increase appetite.

## **Cannabis Consumption Basics**

### ***How Can I Use Cannabis More Safely?***

One of the great aspects of cannabis is that there are many ways to use the medicine effectively.

#### ***Ingest via Eating***

This is one of the safest ways to consume your medication, but understand that the effects from eaten cannabis may be more pronounced and onset of the effects will be delayed by an hour or more and typically last longer than inhalation. Using edible cannabis effectively will usually take some experimentation with particular product types and dosage. Digesting cannabis also metabolizes the cannabinoids somewhat differently and can produce different subjective effects, depending on the individual.

Use small amounts of edibles and wait 2 hours before gradually increasing the dose, if needed. Take care to find and use the right dose-excessive dosage can be uncomfortable and happens most often with edibles.

Try cannabis pills made with hash or cannabis oil or ingest via Tinctures/Sprays

Find your ideal dosage to enhance your therapeutic benefits.  
**Start with no more than two drops and wait at least an hour before increasing the dosage, incrementally and as necessary.**

#### ***Apply via Topicals***

This is one of the safest ways to consume your medication and may be the best option for certain pains or ailments. Rubbing cannabis products on the skin will not result in a psychoactive effect.

#### ***Inhale via Vaporizer***

This is the safest way to inhale your medicine because it heats the cannabinoid-laden oils to the point where they become airborne vapors, without bringing the other plant material to combustion, drastically reducing the amount of tars and other chemical irritants that you otherwise would inhale. Vaporizers also emit much less odor than any type of smoking.

#### ***Know Your Variety***

Cannabis comes in many varieties, roughly divided between sativa's that originated near the equator and indica's that come from northern latitudes, though modern breeding programs have created a wide range of hybrids. Each variety has its own cannabinoid and terpene profile and subtly different effects. Whether you use Sativa-dominant, Indica-dominant, or a Hybrid makes a difference.







- ✿ Take note of what effect each variety produce for you (therapeutic and side effects); keeping a log can be helpful.
- ✿ Use higher potency cannabis so you use less medicine. Concentrates can be useful, particularly if you need higher doses.
- ✿ Experiment with high CBD strains, particularly for nausea, appetite, and pain.
- ✿ Take a medicine vacation occasionally. While cannabis does not produce tolerance in the way opiates do, reducing or ceasing cannabis use can yield enhanced effects when restarted. Either reduce or stop for however long it feels comfortable for you.
- ✿ Change the variety if the one you're using seems to be losing its effectiveness.
- ✿ Whenever possible, choose organic cannabis products. Never consume cannabis that has been treated with pesticides.

## Think About Drug Interactions

No significant interactions between cannabis and other drugs are known at this time, though research indicates cannabis enhances the effects of opiate painkillers. Little is known about the interaction of cannabis and other pharmaceutical medications, but it is important to consider any complementary effects.

Some studies show interactions with barbiturates, theophylline, fluoxetine, disulfiram, sedatives, antihistamines, etc.

A synergistic effect can occur with alcohol use; limit mixing the two.

### Consider Safety. For yourself and your community.

Indicas can cause drowsiness-avoid driving or operating heavy machinery when using your medicine.

## Keeping a Cannabis Log

To establish an optimal treatment regime with cannabis, you will need to balance the effects of different strains, doses, and methods of ingestion. It may be helpful to record your therapeutic relationship with cannabis on an ongoing basis. One method is through keeping a cannabis-use log that captures your experience, including thoughts, feeling and behaviors. Periodically reviewing the log can help both you and your doctor make decisions about what works best.

To start, keep a detailed log, as described below, for at least one week. Once you've got a week's worth of information, complete the self-assessment worksheet that follows. This worksheet will help you better understand many things about yourself, including: your ailments and symptom patterns, your treatment behaviors, and the efficacy and side effects of the cannabis medicines you use.

In keeping a medication log, try to keep things standardized, and be as consistent as possible. Here are some logging tips on useful information to collect:

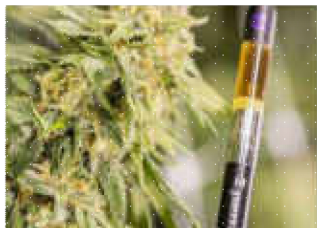
1. **Date/Time:** Record every time you consume cannabis with the current date and time of day.
2. **Amount:** The amount of cannabis used (gram estimate or other consistent measure).
3. **Strain:** The name, strain or variety of the cannabis strain or variety of cannabis medicine used. If you don't know the name, write a detailed description of the medicine.
4. **Code:** Strains are generally described as Indica, Sativa, or hybrid. You may want to code your entries: I=Indica, S=Sativa, S/I=Sativa-dominant Indica Cross, and I/S= Indica-dominant Sativa Cross.
5. **Type** is the form of cannabis consumed: dried bud flower, concentrates, tincture/sprays, edibles/drinks or topical. You may want to use: F=flower, C=concentrate, T=tincture/spray, E=edible, TO=topical.
6. **Cannabinoid Content:** refers to the percent of THC, CBD and/or CBN. If you have this information available to you, write down percentages of each cannabinoid. If you're using edibles or similar, a description of potency and preparation is helpful.
7. **Mode:** Write down how you used your medication. Either inhale via S=smoke or V=vaporize, E=eat/digest, T=tincture or spray, TO=topical.
8. **Therapeutic Effects:** List any positive effects experienced (physical, mental, social, behavioral, etc).
9. **Negative Side Effects:** List your negative effects
10. **Timing:** How quickly did you experience the first therapeutic effects? When did you feel the peak of relief? When did it start to noticeably dissipate? How long until effects were gone?
11. What prompted your cannabis use? List the specific factors that told you it was time for medicine, as well as the general symptoms or conditions being treated (e.g. pain, nausea, anxiety, etc.
12. How did you feel (mindset)? Record your mood and feelings before and after you used cannabis.
13. Where were you (setting)? Were you at home, at a collective, in your office? Sitting, standing, lying down?
14. Who were you with? Were you by yourself, with a friend, a large group, among other cannabis consumers, etc?
15. What were you doing? Just before you used cannabis, what was going on? What were the activities or circumstances leading up to it?





# Proper Dosage

There are some things worth mentioning about the dosing and administration of cannabis first. In small doses, cannabis it can be helpful for things like nausea, appetite, pain, sleep, mood and anxiety. However, in larger doses, cannabis can have the opposite effect, leading to an increase in anxiety, pain and/or depression.



The bi-directional effects of cannabis make it is essential that patients **"start low and go slow"** to avoid experiencing any adverse reactions. The most common side effects of Delta-9 tetrahydrocannabinol (THC) are **dizziness, dry eyes and mouth, euphoria, increased heart rate, decreased blood pressure, fatigue and increased appetite.**

Cannabidiol (CBD) can cause psycho-activity: **dizziness, jitteriness, diarrhea, palpitations and even decreased appetite with prolonged use.** With proper guidance, patients can utilize medical cannabis with optimal results and minimal adverse reactions.

## Delivery Methods

Today we have many different delivery methods for cannabis. Long gone are the days in which the only option was smoking. Now patients can choose from vaporizing, edibles, tinctures, suppositories, topicals and even transdermal patches. There are pros and cons to each delivery method.

### Inhalation

The most well-known and popular delivery method for deriving effects from cannabis is smoking. Smoking cannabis flowers provides relief of symptoms within 5 to 15 minutes. For many patients with chronic pain, anxiety or acute nausea and vomiting, this delivery method is ideal. The number one concern with smoking cannabis is potential lung damage and/or cancer. Tashkin looked at the possible long-term effects on the lungs in chronic cannabis smokers, and found that there was no link to an increased risk of lung cancer or chronic obstructive lung disease. In fact, researchers found that cannabis may have some protective effects against these illnesses in users who smoke it.

When patients smoke cannabis in a joint or pipe, they are heating the medicine at a high temperature (close to 600 degrees). At that temperature, burning cannabis is more likely to produce carcinogens and tars. While smoking has not been correlated with any increased risk of lung damage or cancer, it can lead to chronic bronchitis and/or chronic cough.

It should also be noted that smoking raw cannabis is currently prohibited under Florida law.

## Vaporizing

An alternative to smoking is vaporization. There are many different products available for vaping. Some patients vaporize the flowers or buds of the cannabis plant, while others prefer to vaporize concentrated cannabis. Some other names of concentrated forms of cannabis are oils, dabs, waxes, shatter, nail hits and rosin. Concentrated forms of cannabis are often extracted with chemical solvents such as butane. Testing for residual solvents is a must to avoid inhaling high levels of residual solvent chemicals. Also, some concentrated forms of cannabis oil have been mixed with propylene glycol to ease inhalation administration.

Inhalation of propylene glycol has been linked to respiratory and immune disorders. The concentrated forms are higher potency ranging from 50% to 90% THC. There is much debate about whether high potency cannabis is truly medicinal or just an attempt by people to get extremely intoxicated. For many patients with neuropathic or cancer-related pain, highly concentrated cannabis is most effective at relieving their pain.

Inhalation is a quick and easy way to medicate. Contrary to popular belief, inhalation is low-dose and easiest to control. Patients can titrate up slowly. While the onset of relief is fast, the length of relief is only around 2-3 hours. Inhalation requires more frequent administration and may not be ideal for long-lasting relief.

## Ingestible Cannabis



Ingestibles can include anything from cookies, brownies, candies, capsules, tinctures, sprays, tea, and oils. The advantage of ingesting cannabis is that it will provide much longer relief than inhalation. In general, patients can

experience a reduction in their symptoms for 6-8 hours or more. Most ingestibles in the form of edibles (cookies, brownies, candies, sodas) come in dosages that far exceed the necessary amount to obtain relief.

When cannabinoids are ingested they are processed through the liver. The liver converts delta-9 tetrahydrocannabinol (THC) into 11-hydroxy-THC (11-OH-THC) which is a much more potent form of THC. The bio-availability of ingested cannabis ranges from 4% to 20%. Cannabis is fat soluble, delaying full onset of action from 1-3 hours. These factors make it difficult to dose a majority of THC rich-edibles. The high variability of ingested cannabis, coupled with the delayed onset of effectiveness, can lead to potential over-medicating. Often, while a patient is waiting for relief they will consume more than they need, thinking that they didn't take enough originally.









Unfortunately, this leads to side effects that can be unpleasant and uncomfortable. In higher dosages of 10 mg or more, patients can experience anxiety, paranoia and/or hallucinations.

## Edibles

Edibles, such as baked goods, lozenges and capsules, can be difficult to part out in equal amounts. Take the example of a brownie that has 100 mg of cannabinoids per package. How can you guarantee, when you break that brownie down into several small pieces, that within each piece the cannabis is evenly distributed? In a cannabis-naïve patient, a recommended starting dose is generally between 2.5mgs to 10 mgs of cannabinoid. The more potent the product, the higher chance a patient has of over-medicating.

Dosage	Experience	Edible Recommendations
1 - 10 mg	Beginner	 <b>Tinctures</b> (Provides measured dosing)
11 - 20 mg	Intermediate	 <b>Hard Candy</b> (Pre-determined dosing)
21 - 65 mg	Moderate	 <b>Syrups</b> (Provides creative options)
66 mg +	Expert	 <b>Baked Goods</b> (High THC content per cost)

## Tinctures, Sprays and Oils

Liquid forms of cannabinoids can be a great way to start low and slow. As long as the products are clearly labeled with dosing, patients can start with as little as one drop or one spray. By definition, a tincture is in an alcohol or glycerin base. Among many cannabis products, tinctures are now being developed in an oil base (such as olive oil, coconut oil or medium chain triglycerides (MCT) oil).

Sprays can also be a great way to start low and slow. Many cannabis sprays deliver a metered dose allowing patients to self-titrate.

## Topicals and Transdermals

Topical cannabis products can be beneficial for localized issues. Pain, muscle spasms, eczema, psoriasis, bug bites and/or burns can be treated with topical cannabis. The advantage is that the cannabinoids will act locally (and not regionally), thereby decreasing the potential for systemic side effects. Animal studies have shown that THC topically is two times stronger than hydrocortisone. Topical THC can be effective at reducing itching and inflammation on the surface of the skin. CBD has also been shown to decrease inflammation, muscle tightness and itching. As a topical, CBD absorbs into the skin 10x better than THC. When using a topical, patients can expect to experience relief within 20 minutes, and that relief can last for several hours.

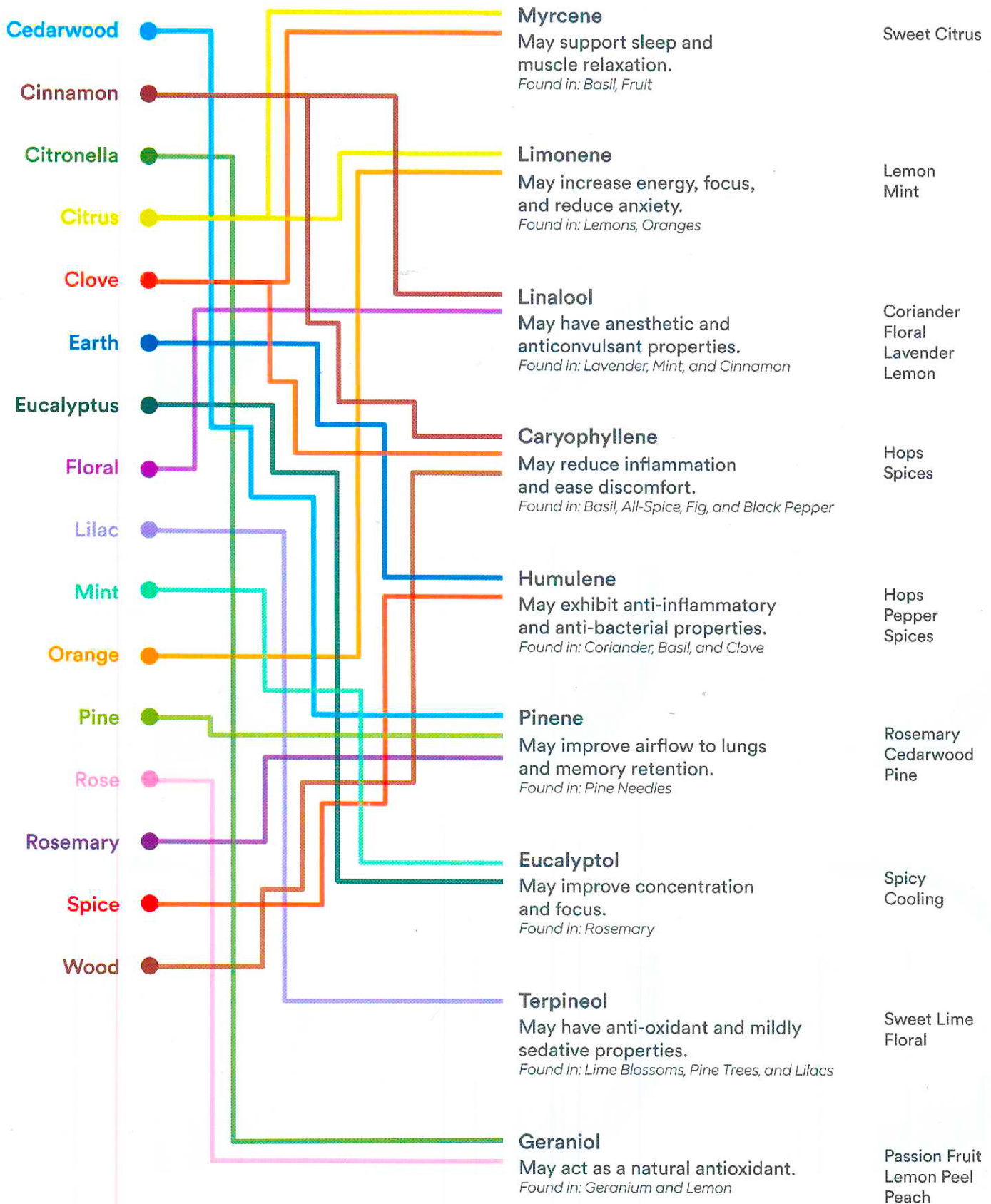
Transdermal products can come in patches and/or topical gel pens. The transdermal products have been designed to penetrate the skin and reach the blood stream for more systemic relief. Patches can provide relief within 20 minutes, and the effects can last for 12 hours. Additionally, if a patch is removed, the adverse reaction will dissipate within 20 to 30 minutes. It can be a great way to introduce cannabis into a patient who is concerned about negative side effects and allow them some control over dosing and administration.

## Special Considerations

As with all cannabis products, patients should be looking for medicines free of pesticides, solvents, molds, fungus and bacteria. Without standards in place, pesticide use in growing cannabis is unregulated. Solvents, such as butane, hexane and isopropyl alcohol are used to extract concentrated forms of cannabis. Testing the final cannabis product for pesticides, mycotoxins, residual solvents and potency would help ensure the safety of the medicine being consumed.

Finally, cannabis is best when it is individualized to the patient. Dosing is not a one-size-fits-all model, nor is it a sliver bullet.







# The Cannabis Healing Chart



## Therapeutic Uses of Cannabinoids

### Medical Benefit

	THC	CBD	CBG	CBN	CBC	THCV	THCA	CBDA
Relieves Pain	●	●			●	●	●	
Suppresses Appetite					●		●	
Kills or Slows Bacteria Growth			●	●	●			
Reduces Blood Sugar Levels			●					
Reduces Vomiting and Nausea	●	●						●
Reduces Seizures and Convulsions		●					●	●
Reduces Inflammation	●	●	●			●	●	●
Aids Sleep	●				●			
Reduces Risk of Artery Blockages			●					
Inhibits Tumor/Cancer Growth	●	●	●			●	●	●
Nervous System Protectant	●	●						
Suppresses Muscle Spasms	●	●			●			●
Relieves Anxiety	●	●	●			●	●	
Stimulates Appetite	●							
Modulates the Immune System			●					
Reduces Spasms in Small Intestine			●					●
Tranquilizing and Antipsychotic			●					



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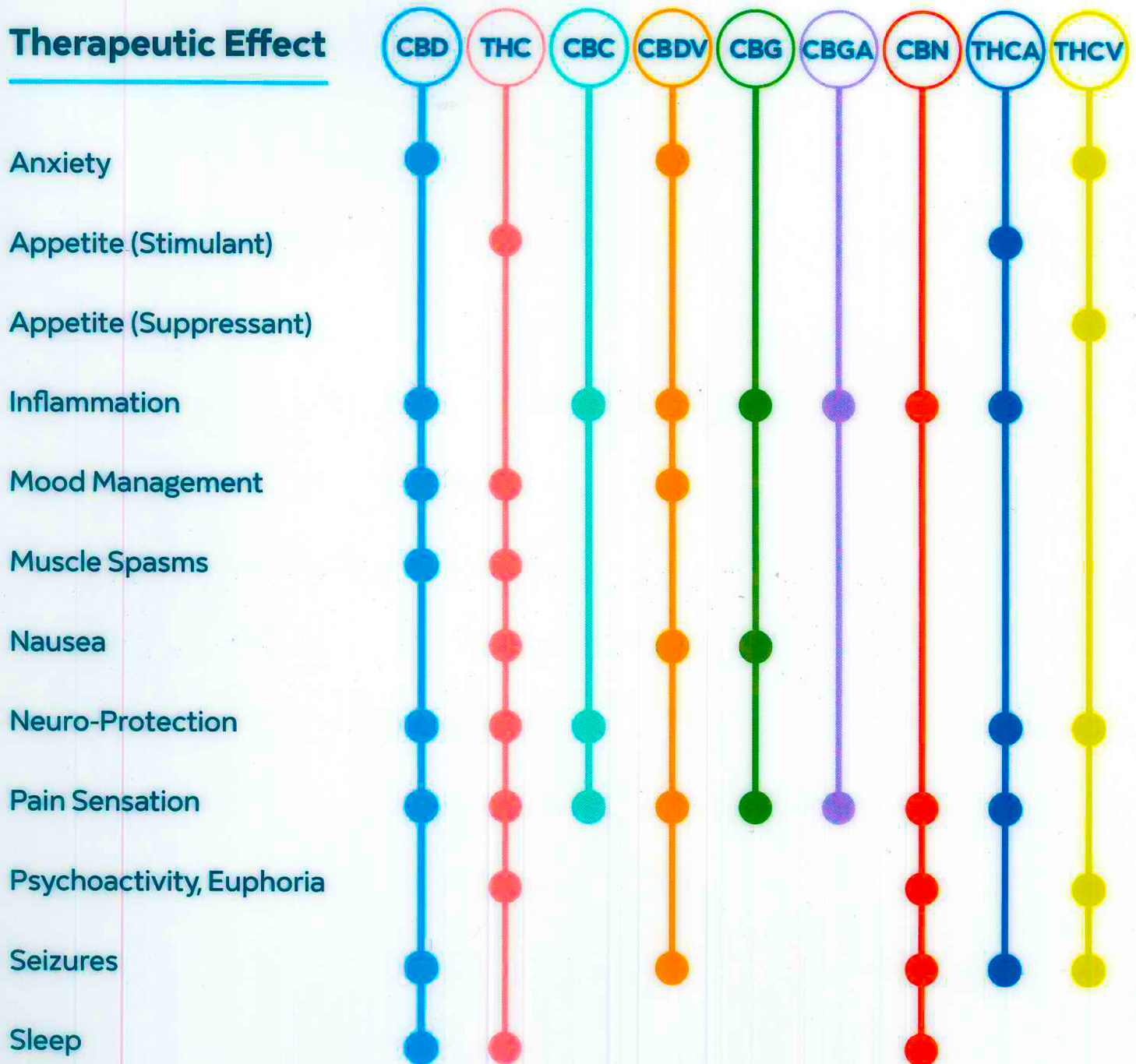


# COMMON CANNABINOIDS FOUND IN CANNABIS

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## Therapeutic Effect



The statements have not been evaluated by the FDA and are not intended to diagnose, treat, or cure any disease.

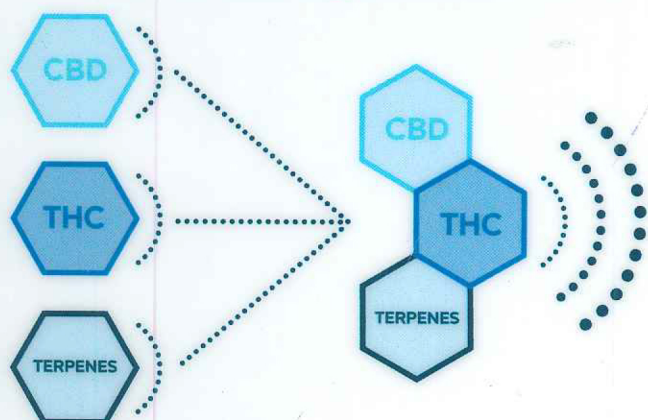


# Cannabis Fundamentals

## Medical Cannabis and The Endocannabinoid System

**CANNABINOIDS** are included among the 400+ chemical compounds in the cannabis plant which give the cannabis plant its medical properties. There are over 100 different cannabinoids in the cannabis plant including THC and CBD, which are the most well known and most investigated cannabinoids. Endocannabinoids are naturally occurring cannabinoids found in our bodies, whereas phytocannabinoids are cannabinoids found in plants. THC and CBD are phytocannabinoids.

### The Entourage Effect



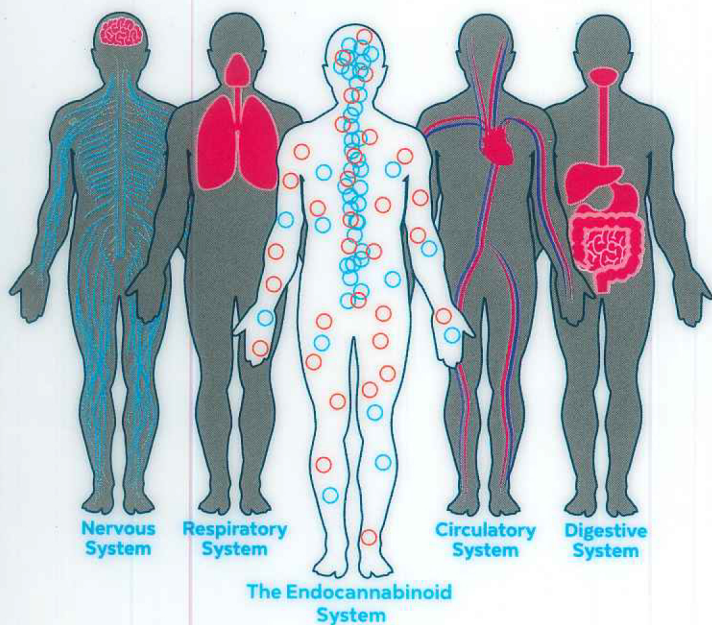
**CBD (CANNABIDIOL)** is a non-psychoactive compound that has many therapeutic uses and is known for its relaxing, anti-inflammatory, and anti-epileptic properties.

**THC (TETRAHYDROCANNABINOL)** is the phytocannabinoid known for its euphoric “high” and pain relieving effects.

**TERPENES** are naturally occurring oils found in cannabis and commonly used herbs, spices, and fruits. Terpenes contribute to medical cannabis by balancing out the overall effects of the medication.

**THE ‘ENTOURAGE EFFECT’** is when THC, CBD and terpenes are combined to produce an effect that is greater than the sum of the individual compounds.

### The Endocannabinoid System



**THE ENDOCANNABINOID SYSTEM (ECS)** is a complex network of molecules and receptors that consists of two primary receptors: CB1 and CB2. Both endocannabinoids and phytocannabinoids interact with the CB1 and CB2 receptors in the ECS to regulate many physiological processes including: **APPETITE, MEMORY, MOOD, BLOOD PRESSURE, INFLAMMATION, PAIN SENSATION AND SLEEP.**

**CB1 RECEPTORS** are most abundant in the central nervous system.

**CB2 RECEPTORS** are most abundant in the peripheral nervous system, the circulatory system and the digestive system.

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