



# MEDICAL MARIJUANA FOR ANXIETY, STRESS, & PAIN

WEDNESDAY, MARCH 2

9:30AM - NOON, 1:30PM - 4PM

THE 2022 MEDICAL MARIJUANA & WELLNESS WEBINAR SERIES IS DEDICATED IN LOVING MEMORY OF  
JENIFER PERDOMO - CANNAWARRIOR, COMMUNITY EDUCATOR, AND MOTHER



# 2022 Medical Marijuana & Wellness Series

## WEEKLY DISCUSSIONS WITH INDUSTRY EXPERTS

### SPEAKERS



**Marc Matoza**  
Marijuana Med Today



**Turner Davis**  
Medical Marijuana  
Treatment Clinics of Florida



**Alex Ford**  
Trulieve



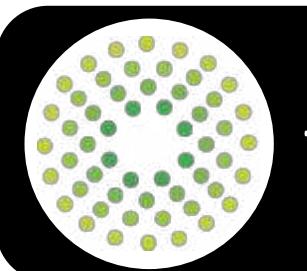
**Nick Maginsky**  
MÜV by Verano



MARIJUANA  
MED TODAY



M Ü V  
BY VERANO



TRULIEVE



MEDICAL MARIJUANA  
Treatment Clinics  
of florida



SUNCOAST  
NORML



MY BOTANICA  
WELLNESS



SUNMED

Other members of the MarijuanaAware team include Linda Bruce, D'Jenaiya Bowser, Lee Jones, & Alyssa Quintana

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JENIFER PERDOMO - CANNAWARRIOR, COMMUNITY EDUCATOR, AND MOTHER



# COMMON CONCERNS ABOUT MEDICAL MARIJUANA



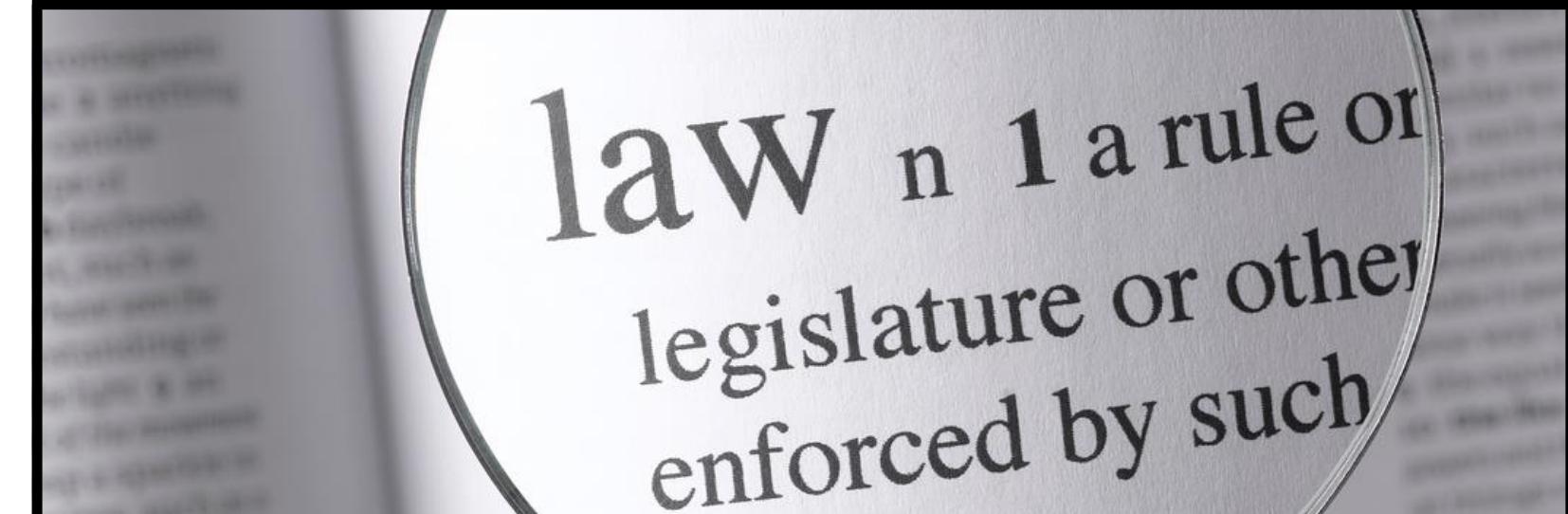
## MEDICATING EXPERIENCE

- I don't want to be high, does all cannabis cause euphoria?
- Will it conflict with my other medications?
- Can I drive when I use Medical Marijuana?
- It is hard for me to get around, can I get it delivered?



## LONG-TERM HEALTH

- Can I get addicted? Is it safe?
- Do I have to smoke it?
- Can I overdose from using Medical Marijuana?
- I heard that vaping is dangerous, how is that medical?



## LEGAL IMPACT

- Will I be arrested if I get stopped by police with medical marijuana products?
- Will someone take away my guns if I'm in the FL Medical Marijuana Use Registry?

# WHAT IS MEDICAL CANNABIS?

## CBD - Cannabidiol

Non-Psychoactive cannabis component - Also found in Hemp

THC - Tetrahydrocannabinol  
Psychoactive cannabis component



# PAIN MANAGEMENT & MEDICAL CANNABIS



Pain is one of the most common patient complaints

Chronic pain is often misdiagnosed and mistreated

# WHAT ARE CHRONIC & ACUTE PAIN?



**CHRONIC PAIN** persists for an extended period (3+ months) or recurs regularly.

**ACUTE PAIN** is connected to a specific injury or illness and doesn't last more than a few months.

Chronic pain is one of the top causes of long-term disability in the US.

# CANNABIS AND CHRONIC PAIN

**Chronic pain management is the #1 reason for medical cannabis use!**



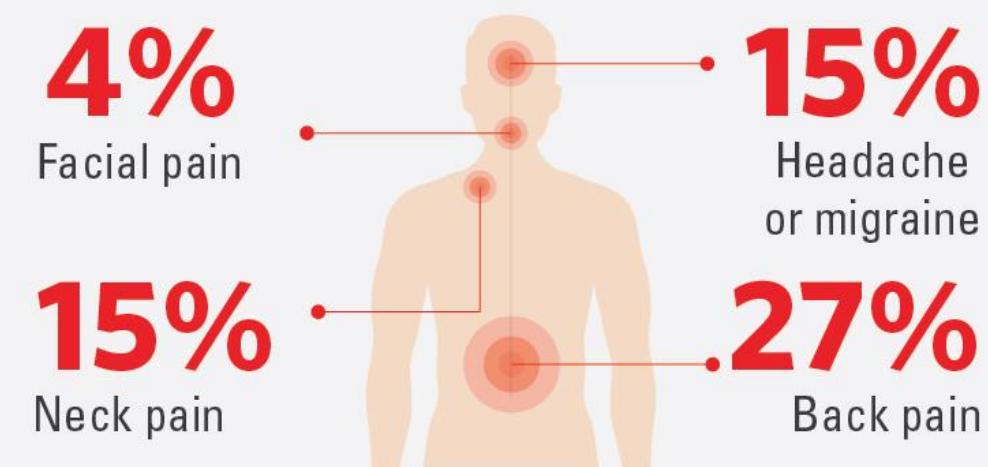
**HARVARD  
MEDICAL SCHOOL**

**People with chronic pain are three times more likely to develop anxiety and depression than those without chronic pain**

Harvard Medical School 2017

## THE COST OF CHRONIC PAIN

The most common types of chronic pain:



**100 million**

American adults experience chronic pain — more than the number affected by heart disease, diabetes and cancer combined

**76.5 million**

Have chronic pain lasting 24 hours or longer

**36 million**

Miss work each year because of chronic pain

**3 in 4**

Chronic pain patients report feeling depressed

**\$635 billion**

Annual cost of treatment and lost productivity

**5 million to 8 million**

Rely on opioids for long-term pain management

Most common side effects:  
trouble with concentration,  
energy levels and sleep

Helpful exercises for  
chronic pain: aquatic  
therapy, tai chi, yoga  
and walking

# CANNABIS AND CHRONIC PAIN

How does cannabis compare to pain management alternatives?

- Lower risk of addiction compared to **opioids-based medications**, which are more suited to intense, **shorter-term pain management**.
- **Cannabis has no record of fatal overdoses.**
- No evidence with cannabis for the kidney damage and GI issues caused by long-term use of **NSAIDs**.
- No issues with the kind of liver damage associated with **acetaminophen (Tylenol) toxicity**

Results from a recent study revealed that more than 62% of individuals who use medical cannabis do so to treat chronic pain<sup>1</sup>

**U.S. Pharmacist**

The Pharmacist's Resource for Clinical Excellence

<sup>1</sup> Medical Marijuana for Chronic Pain  
US Pharmacist. March 2020  
<https://www.uspharmacist.com/>

<sup>1</sup> Cassells C. Medical cannabis safe, effective in the elderly. Medscape. [www.medscape.com/viewarticle/912624](http://www.medscape.com/viewarticle/912624) May 6, 2019. Accessed January 13, 2020

# PAIN MANAGEMENT & MEDICAL MARIJUANA

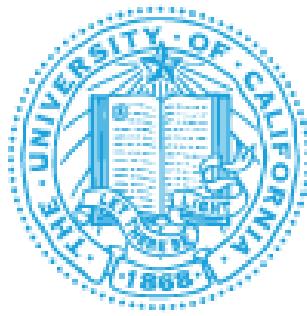
Medical marijuana has been shown to be clinically effective in treating many chronic conditions including chronic pain, ALS, Parkinson's Disease, Epilepsy, Multiple Sclerosis, PTS, Anxiety, muscle cramps, insomnia, and more



- Use of medical cannabis is proven to be safe, with no possibility of fatal overdose and very few notable interactions with other medications
- Offers an option for patients who have exhausted conventional therapies
- Helps patients to manage pain without the risks from opiates

# STUDIES: CANNABIS FOR PAIN

- A clinical trial from University of California showed that both high and low doses of inhaled cannabis **reduced neuropathic pain in subjects unresponsive to standard pain therapies.**
- Researchers at McGill University reported that cannabis **significantly relieved pain, anxiety and improved sleep quality in participants with refractory pain for which conventional therapies had failed**
- A 2019 study showed that cannabis could be an effective treatment option for both pain relief and insomnia and that **80% of participants found it was very or extremely helpful**



UNIVERSITY  
OF  
CALIFORNIA



McGill  
UNIVERSITY

# PAIN MANAGEMENT & CANNABIS STUDIES

YEAR	STUDY/ARTICLE	AUTHOR
1999	Synergistic interactions of endogenous opioids and cannabinoids systems	Welsh and Eads
2002	The Role of Cannabis and Cannabinoids in Pain Management	Ethan Russo, MD
2007	Herbal medicine for low back pain: A Cochrane review	Ganier, J.J, et al.
2009	Cannabinoids, endocannabinoids and related analogs in inflammation	Sumner Burstein & Robert Zurier
2009	Cannabinoid-induced effects on the nociceptive system: A neurophysiological study in patients with secondary progressive multiple sclerosis	Conte, et al.
2009	Systematic Review and Meta-analysis of Cannabis Treatment for Chronic Pain	Eva Martin-Sanchez, MSc, et al.
2015	Efficacy of Inhaled Cannabis on Painful Diabetic Neuropathy	Wallace MS, et al.
2015	Medical Marijuana for Treatment of Chronic Pain and Other Medical and Psychiatric Problems: A Clinical Review	Kevin Hill, MD, MHS
2016	The Medical Use of Cannabis in Neuropathies	Modern Health Concepts. Pg. 147-150
2017	Cannabis and Pain: A Clinical Review. Cannabis and Cannabinoid Research	Hill, K.P., et al.

# CBD & THC FOR PAIN MANAGEMENT

THC has a greater effect on pain

whereas CBD works to ease pain  
at the local source [i.e. Inflammation]



## Main Active Components of Marijuana & Hemp

CBD (Cannabidiol)	FOUND IN HEMP	FOUND IN MARIJUANA	NON-PSYCHOACTIVE
<b>Delta-9 THC</b> ( <i>Delta-9-tetrahydrocannabinol</i> )	CAN ONLY BE FOUND IN HEMP IN QUANTITIES OF 0.3% OR LESS	FOUND IN MARIJUANA	PSYCHOACTIVE
<b>Delta-8 THC</b> ( <i>Delta-8-tetrahydrocannabinol</i> )	PRIMARILY MANUFACTURED FROM HEMP FOR LEGAL PURPOSES IN THE US	FOUND IN MARIJUANA IN LOW (<0.1%) CONCENTRATIONS	PSYCHOACTIVE, WITH MORE MILD EFFECTS THAN DELTA-9 THC

Note: In common usage, when people refer to THC, they are talking about delta-9 THC.

# ANXIETY, STRESS, & MEDICAL CANNABIS

# What are Anxiety & Stress?

Everyone experiences stress and anxiety at one time or another. The difference between them is that **stress is a response to a threat in a situation.**

**Anxiety is a reaction to stress.**

[Anxiety & Depression Association of America](#)

Many signs of anxiety, such as nervousness, worry, and fear, are expected and natural biological reactions which can occur until the situation or stressor passes.

However, if your symptoms become persistent, overwhelming, or interfere with daily life even when a stressor isn't present, you may have an anxiety disorder.

**STRESS** is a physical and mental response to an external cause.

- Stress is how the brain and body respond to any type of challenge—such as performance at work or school, a significant life change, or a traumatic event
- Chronic stress can affect your health, causing symptoms including headaches, high blood pressure, chest pain, heart palpitations, skin rashes, and loss of sleep
- Not all stress is detrimental: like fear, normal amounts can serve as a motivator and assist in self-preservation

If you are overwhelmed by stress, seek help from a qualified health professional

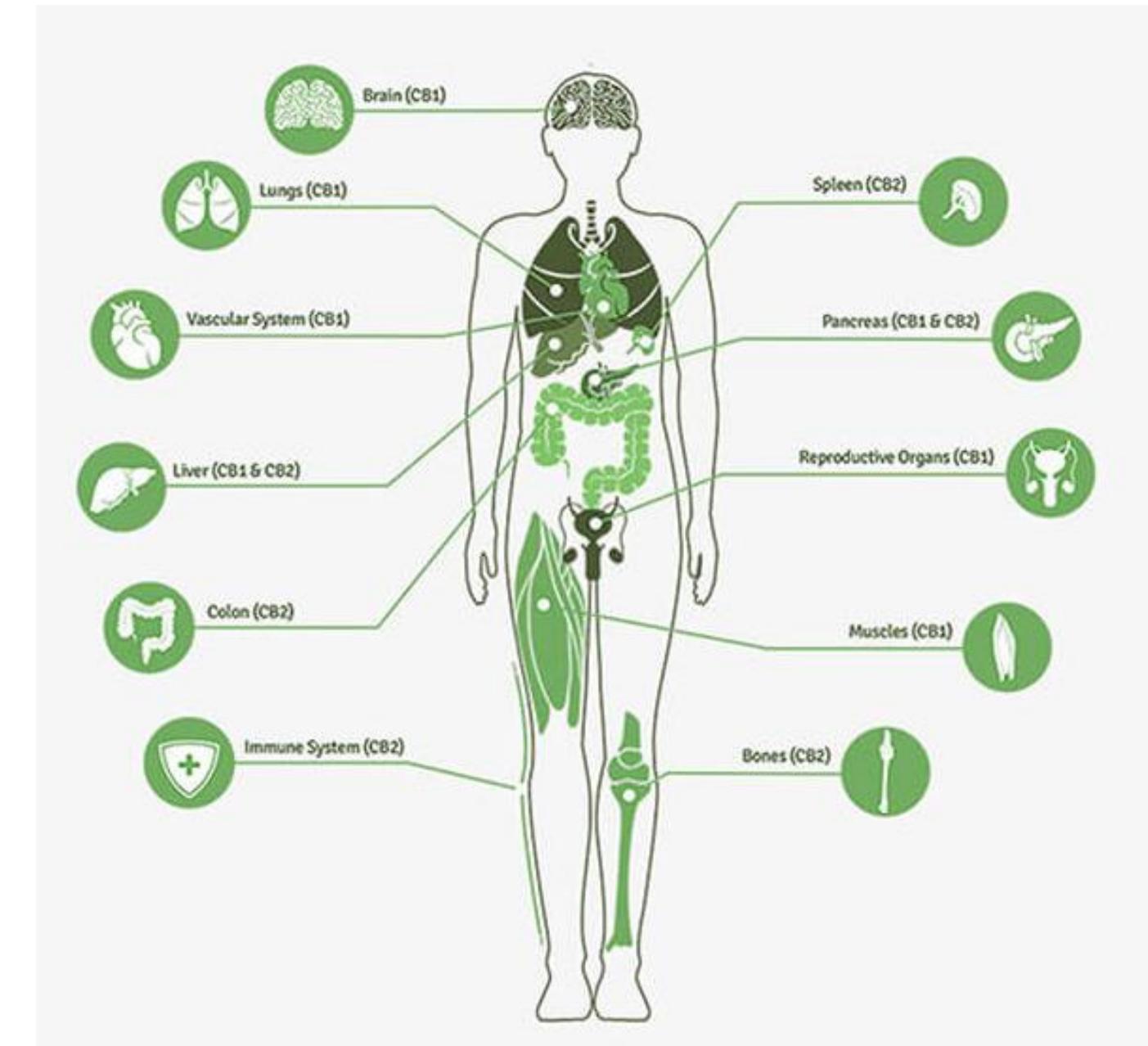
**ANXIETY** is an ongoing, escalated stress response.

- Anxiety is characterized by “a persistent feeling of dread or apprehension” and develops from a complex set of risk factors including genetics, brain chemistry, and life events
- Anxiety affects both physical and mental health
- An estimated 264 million people worldwide have an anxiety disorder
- Anxiety disorders are the most prevalent mental health condition in the United States, affecting about 31% of American adults in their lifetime.
- Types of anxiety include generalized anxiety disorder, panic disorder, phobias, social anxiety disorder, etc.

**SPEAKERS WILL TAKE QUESTIONS DURING DESIGNATED Q&A SECTIONS  
SUBMIT YOUR QUESTIONS ON ONE OF THE NOTECARDS DISTRIBUTED BY OUR EVENT COORDINATOR**

# WHAT DOES THE RESEARCH SAY?

- The Endocannabinoid system [ECS] plays an important role in regulating anxiety, fear, and the stress response determining our behavioral response to stressful stimuli
- Individuals suffering from PTS or chronic pain have reported a reduction of anxiety-related symptoms when using medical cannabis
- Naturally-occuring Terpenes in cannabis boost the anti-anxiety effects
  - + Terpenes are fragrant oils produced by plants and herbs.
  - + Researchers are exploring to what degree they provide additional therapeutic benefits.
- A study published [Jan 2020] showed that encannabinoid 2-AG [activates the same receptors as THC] reduced anxiety-inducing connections in the brain



# CBD & THC FOR ANXIETY & STRESS



- CBD & THC has been shown to effective for pain, anxiety & stress, especially when taken together
- Dosing
  - + Lower doses of cannabis has been shown to help anxiety, stress and pain due to inflammation
  - + Higher doses it seems to worsen the effects of them  
NOTE: Be careful with edibles
- THC in high doses can be anxiety-inducing
- High doses of CBD appear to reduce anxiety and inflammation

# Does Medical Marijuana Interact with Medication?

*Due to a lack of extensive research, it is advisable to consult your physician before combining any medications. This includes medical cannabis.*

## ANTI-ANXIETY MEDICATION

Most professionals theorize that a combination of factors can affect a person's wellbeing and vulnerability to developing an anxiety disorder.

- A chemical imbalance in the brain's neurotransmitters
- Genetic predisposition
- Environmental factors such as trauma, experiences of abuse/neglect
- Difficult life stressors and transitions including grief, loss, or other major life changes

Verywell Mind | By Katharina Star PhD, Medically reviewed by Steven Gans MD | Updated September 2020

 **Reuptake inhibitors** are a type of medication that work by blocking the reabsorption of certain neurotransmitters into neurons, leaving more of the targeted neurotransmitters available to improve transmission of signals between neurons.

These are considered the first-line medication for many forms of anxiety. **Very few adverse interactions between cannabis and reuptake inhibitors have been reported by patients.**

A **neurotransmitter** is a chemical messenger that carries, boosts, and balances signals between nerve cells (neurons) and target cells throughout the body.

Billions of neurotransmitter molecules manage everything from breathing to a variety of psychological functions such as fear, mood, pleasure, and joy.

In treating mood disorders, three specific neurotransmitters are targeted:

### DOPAMINE

motivation, anticipation, reward-motivated behavior, motor control, hormone release

### SEROTONIN

regulation of mood, appetite, sleep, memory & learning; physiological processes such as vomiting and vasoconstriction

### NOREPINEPHRINE

mobilizes brain/body for action; alertness, focus, retrieval of memory; hormone regulation

Low levels of these neurotransmitters (or the lack of cellular receptors able to receive the messages) play a pivotal role in development of mood disorders, as well as determining their type and severity.

Verywell Mind | By Marcia Purse, Medically reviewed by Amy Morin, LCSW | Updated April 2021

## OTHER MEDICATION

 Other medications call for greater caution, as cannabis can amplify adverse side effects such as elevated heart rate and blood pressure.

- Sedatives [e.g. Xanax, Klonopin, and Ambien]
- Tricyclic antidepressants [e.g. imipramine/Tofranil, amitriptyline, doxepin, trimipramine/Surmontil]
- MAOIs [e.g. tranylcypromine/Parnate, phenelzine/Nardil, isocarboxazid/Marplan]



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# ROUTES OF ADMINISTRATION

FORM	TIME BEFORE ONSET OF EFFECT	DURATION OF EFFECT	NOTES
 SUBLINGUAL DROPS / TINCTURES / OILS	15 - 20 MIN <small>FULL EFFECT AT 1.5 - 2 HOURS</small>	4 - 6 HOURS	When taking cannabis via liquid drops under your tongue, components are absorbed via the digestive system or blood vessels in the mucous membranes in the mouth.
 INHALATION (VAPE PENS)	ALMOST IMMEDIATELY	2 - 6 HOURS	Vaporization delivers inhaled cannabis into the lungs via water molecules, avoiding absorption of potentially harmful material produced by combustion.
 CAPSULES	1.5 - 2 HOURS	4 - 6 HOURS	The content of oral capsules enters the bloodstream after digestion. <b>This method is especially beginner-friendly because of the pre-portioned doses.</b>
 EDIBLES	15 - 20 MIN <small>FULL EFFECT AT 1.5 - 2 HOURS</small>	4 - 10 HOURS	Gummies, hard candies, brownies, and cookies are common forms for edibles. <b>Patients should pay special attention to dosage for a desired effect.</b>
 TOPICALS	ALMOST IMMEDIATELY	1 - 2 HOURS	A topical medication is applied directly to the skin at the site where the effect is needed. <b>This form is useful for its quick relief and ability to focus effect on a specific area.</b>
 TRANSDERMAL PATCHES	10 MIN - 1 HOUR	8 - 72 HOURS	A patch is applied directly to skin in areas with high permeability such as the neck or top of the hands/feet, so that a controlled release of medication is delivered through skin into the bloodstream.
 METERED DOSE INHALERS	ALMOST IMMEDIATELY	4 - 8 HOURS	An inhaler is a familiar, easy-to-use device that delivers a pre-determined dose of medication. <b>This method is beginner-friendly, with easy dosing and less harshness than smoking.</b>
 SPRAYS	15 - 20 MIN <small>FULL EFFECT AT 1.5 - 2 HOURS</small>	4 - 6 HOURS	Similar to sublingual drops, this form of medical marijuana is absorbed via blood vessels in the mucous membranes in the mouth. <b>Sprays are beginner-friendly with simple doses.</b>
 FLOWER	ALMOST IMMEDIATELY	2 - 6 HOURS	Dry flower, also called bud, can be ignited or vaporized and the smoke is inhaled into the lungs. <b>This product requires a state form. Patients may purchase 2.5oz/35 days, with a maximum of 4oz in possession.</b>
 CONCENTRATES	ALMOST IMMEDIATELY	1 - 6 HOURS	Concentrates are made using cannabis extract and can take forms including shatter, distillate, and rosin. Primary ways to consume concentrates are dabbing, adding to flower, and vaporizing.

# HOW TO BECOME A FLORIDA MEDICAL MARIJUANA PATIENT

**STEP 1:** Visit a Florida cannabis-certified doctor to qualify - No referral is needed

- The doctor will review your medical records to verify for the state that you qualify
- **If you do not qualify, the visit is free.** If you do qualify, the physician will enter your information into the Florida Medical Marijuana Registry
- You will be given a *recommendation* – essentially a prescription, to be filled at the dispensary of your choice

**STEP 2:** Complete the paperwork provided by the doctor in order to apply for your Registry ID card through the Florida Department of Health's Office of Medical Marijuana Use

- You will need the p-number provided when your information was entered into Registry
- The application may be completed at home

**STEP 3:** Once the paperwork is approved, you can purchase product the same day

- This could be the same day as your clinic appointment, provided that all systems are functioning
- You will receive an ID number via email so that you will be able to purchase medication from a dispensary before your physical card is mailed to you.

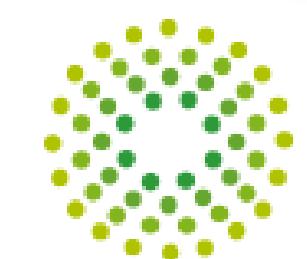




# STANDARD DOSING FORMS

- Sublingual Drops/Tinctures
- Inhalation Vape Pens
- Capsules
- Topicals
- Sprays
- Edibles
- Flower
- Concentrates



 Trulieve

The Trulieve logo consists of a green circular icon made of small dots, followed by the word 'Trulieve' in a green sans-serif font.

# TruNano Technology

With increased bioavailability and uptake potential!

*Nanomedicines* tend to be more powerful compared to other medicines.

Trulieve uses a proprietary method through a process called *sonication*.

Remember to start low and go slow!

The bioavailability of these products is about 90%.

## TruNano Tincture- 250mg

- 8:1 CBD: CBD, 28mg, THC - 222mg THC
- 1:8 THC:CBD - 222mg THC, 28mg CBD
- \$55



## TruNano Gels- 100mg

- 10mg, 10 pieces
- Indica, Sativa, Hybrid
- \$25



**Our Picks for First-Time Patients**

PICK ANY 3 ITEMS **\$75**

TOPICAL CREAM 250mg | 2oz  
CBN CAPSULES 150mg | 30ct 1:1 CBN/THC  
Concentrate SYRINGE 880mg | 1:1 CBD/THC  
TruNano TINCTURE 500mg | 1:1 CBD/THC  
Ratio VAPE CART 500mg | 1:1 CBD/THC  
TRUGELS 500mg | 1:1 CBD/THC

New Patient Promo bundle is valid 1/3/2022 - 3/31/2022 in Trulieve locations in Florida only. Offer is valid on select products. Only one of the same product in a transaction. Offer cannot be combined with any other patient discount. Product variety and availability may vary by Florida location. Trulieve reserves the right to change or adjust this program at any time.

# Ratio Products

- TruClear
  - 1:1 CBD:THC      - 1:1 Delta 8: Delta 9
- TruPods
  - 1:1:1 Laughing Buddha- Delta 8: Delta 9: CBD
  - 1:1:1 Diablo - Delta 8: Delta 9: CBD
  - 1:1 Pink Lemonade- CBD: Delta 8
- Vape Carts
  - 1:1.            - 5:3      - 1:8
  - 1:1:1 Diablo and Laughing Buddha
- TruGels
  - 1:1 CBD:THC
  - 5:1 THC:CBN
  - 1:1 CBD:CBN
  - 1:1 CBD:THC
- Capsules
  - 1:1 CBD:THC



# Trulieve Discounts

## Welcome to Trulieve.com

- Return and Exchange Policy
  - + No hassle 100% exchange policy
- 50% off first purchase at Trulieve
- “Reefer a Friend Promotion”
  - + 1/1-3/31 2022
  - + When a current patient brings a new patient to shop at Trulieve, both patients will receive 50% off

**NEW PATIENT DISCOUNT**  
**50% Off\***  
YOUR FIRST ORDER

**15% Off\***  
YOUR SECOND ORDER

**STATE ID CARD  
RENEWAL DISCOUNT**  
**\$75 Off\***  
PURCHASE OF \$150+

• Loyalty Program  
• Veteran Discount  
• Birthday Discount

• SNAP Discount  
• Battery Bundle  
Discount

• Bulk RSO Discount  
• Senior Sundays

**FOR PROMOTIONS AND  
PATIENT DISCOUNTS VISIT:**  
[www.trulieve.com/discover/  
promotions](http://www.trulieve.com/discover/promotions)



# Trulieve Discounts

**Our Picks for First-Time Patients**

PICK ANY 3 ITEMS  
\$75

TOPICAL CREAM 250mg   2oz	CBN CAPSULES 150mg   30ct 1:1 CBN:THC	Concentrate SYRINGE 850mg   1:1 CBD:THC	TruNano TINCTURE 500mg   8:1 CBD:THC	Vape CART .5g   1:1 CBD:THC	TRUGELS 1:1 CBD:THC 5:1 CBN:THC
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**Ree-fer a Friend and You Save Too!**

**Stay Tru to your buds!**  
Bring a new patient with you and you'll BOTH receive **50% OFF** your next order.

Offer valid 01/01/2022 - 03/31/2022 in Trulieve locations in Florida. New patient discounts are valid for first time patients. Each offer is valid one time per patient. Discount will be applied in-store or via delivery at checkout. Discount excludes Ground, non-CDT cell cartridges and Clearance. Discount cannot be combined with any other patient discount. Trulieve reserves the right to change or adjust this discount.

# Deliveries and Order Pick-Up

**Free statewide delivery** for all patients over age 65, or patients spending \$200+

Register at [trulieve.com](http://trulieve.com) to create an online account

## Order Delivery

Online Order Received →

In Progress →

Delivery date scheduled →



Your order is completed!

## Order Pick-Up

Online Order Received →

Order is completed →

You will receive a text when ready for pickup at  
your chosen Trulieve location

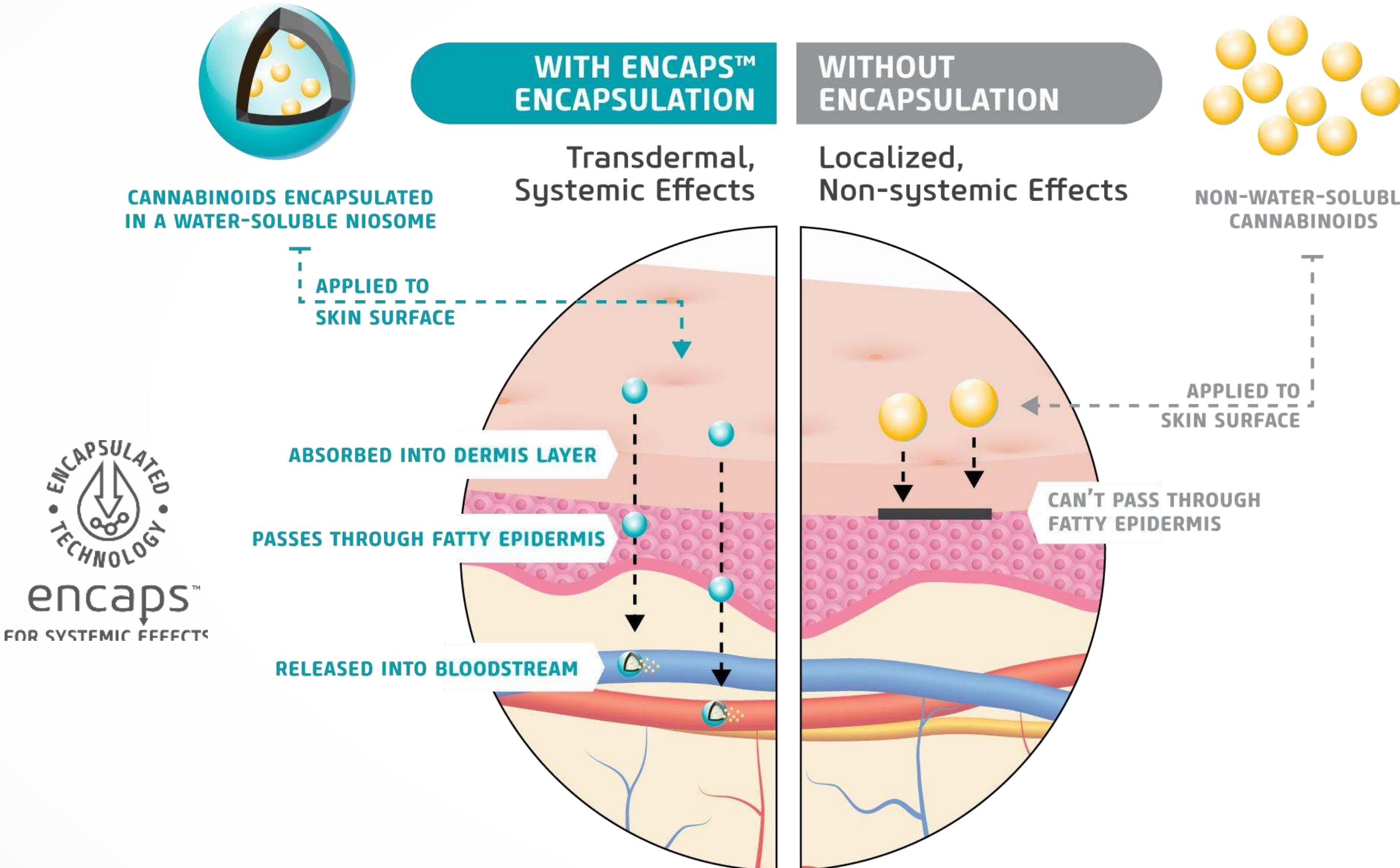
TIP: Opt for **Express Check-In** to avoid lobby wait times

müv™

# BEST-IN-CLASS CANNABIS PRODUCTS



# Patented Encapsulation for Improved Bioavailability



Encapsulation Enables Powerful Transdermal and Fast-acting Ingestible Cannabis Products

Being fat-soluble, cannabinoids have difficulty getting into the water-based bloodstream through the skin and sub-dermal tissues – this has been the main barrier preventing cannabis topicals from delivering full-body effects. EnCaps™ encapsulated technology is the solution to this challenge.

It enables MÜV products to be **transdermal**, entering the bloodstream through skin and tissues.

It also allows for much **faster-acting and more bioavailable** ingestible products.

EnCaps has received **US and EU patents**, which is a rare achievement in the cannabis space.



encaps™  
FOR SYSTEMIC EFFECTS

# ROUTES OF ADMINISTRATION

- Sublingual Drops/Tinctures
- Inhalation Vape Pens
- Capsules
- Topicals
- Metered Dose Inhaler
- Sprays
- Edibles
- Flower
- Concentrates



# Current Discounts



verano™

müv™

***First-Time New MÜV Patient Discount  
25% Discount***

***Senior Citizen 55+ Discount  
10% Discount***

***Pediatrics Discount For MÜV Cannabis Patients  
25% Discount***

***Higher Education Discount  
10% Discount***

***MÜV Medical Marijuana Veterans Discount  
20% Discount***

***Patient Referral Program  
A \$25 CREDIT FOR YOU +  
A 25% DISCOUNT FOR THEM  
= SMILES FOR EVERYONE.***

***SSDI - Social Security Disability Insurance  
10% Discount***

# 41 Florida locations

and more coming in the months ahead!

- Apollo Beach
- Bonita Springs
- Boynton Beach
- Bradenton-Heritage Green
- Bradenton-75th West
- Cape Coral
- Clearwater-19 North
- Clearwater-Roosevelt
- Deerfield Beach
- Fort Myers
- Gainesville
- Jacksonville
- Jacksonville Beach
- Key West
- Lady Lake
- Lakeland
- Longwood
- Lutz
- Merrit Island
- Melbourne
- North Port
- Orange City
- Orange Park
- Orlando-Garland
- Orlando-Vineland
- Ormond Beach
- Pensacola
- Pinellas Park
- Port St. Lucie
- Sarasota
- Sebastian
- Shalimar
- Spring Hill
- St. Augustine
- St. Petersburg
- Stuart
- Tallahassee
- Tampa-Dale Mabry
- Tampa-West Kennedy
- Wellington
- West Melbourne
- West Palm Beach





## REACH US YOUR WAY

### Patient Care Team **EXTENDED HOURS**

Monday - Saturday  
9 AM - 8 PM (EST)

Sunday  
10 AM - 6 PM (EST)



Reach us by phone at 833-880-5420.



Need a discreet answer? Send your message to [support@muvbrand.com](mailto:support@muvbrand.com)  
Patient Care will be in touch promptly.



For immediate assistance, live chat with Patient Care at [muvfl.com](http://muvfl.com) by opening the chat bubble at the bottom-right of your screen.

# THANK YOU!



1-on-1 consultations



on [muvfl.com](http://muvfl.com)



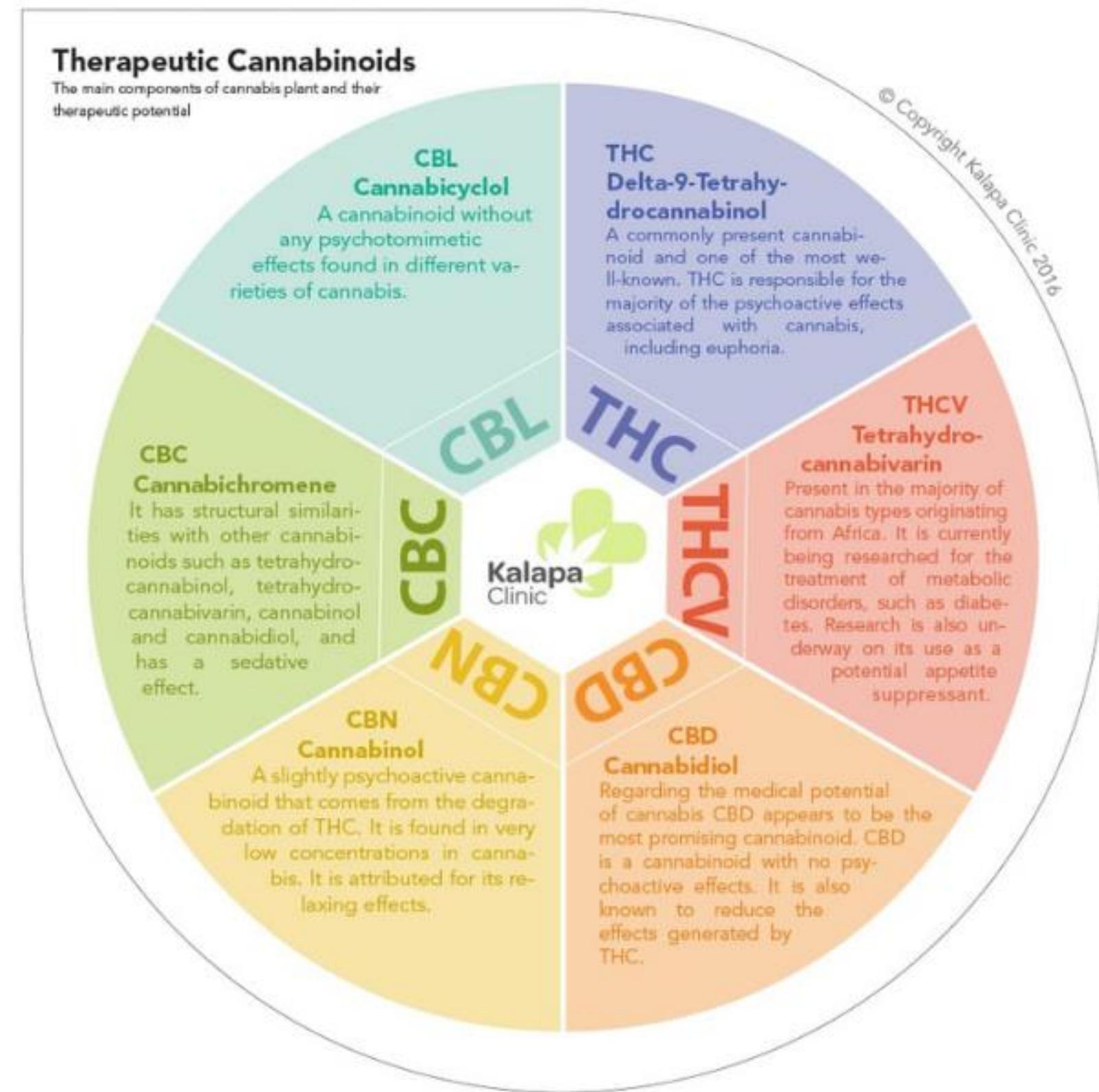
[support@muvbrand.com](mailto:support@muvbrand.com)



**833.880.5420**

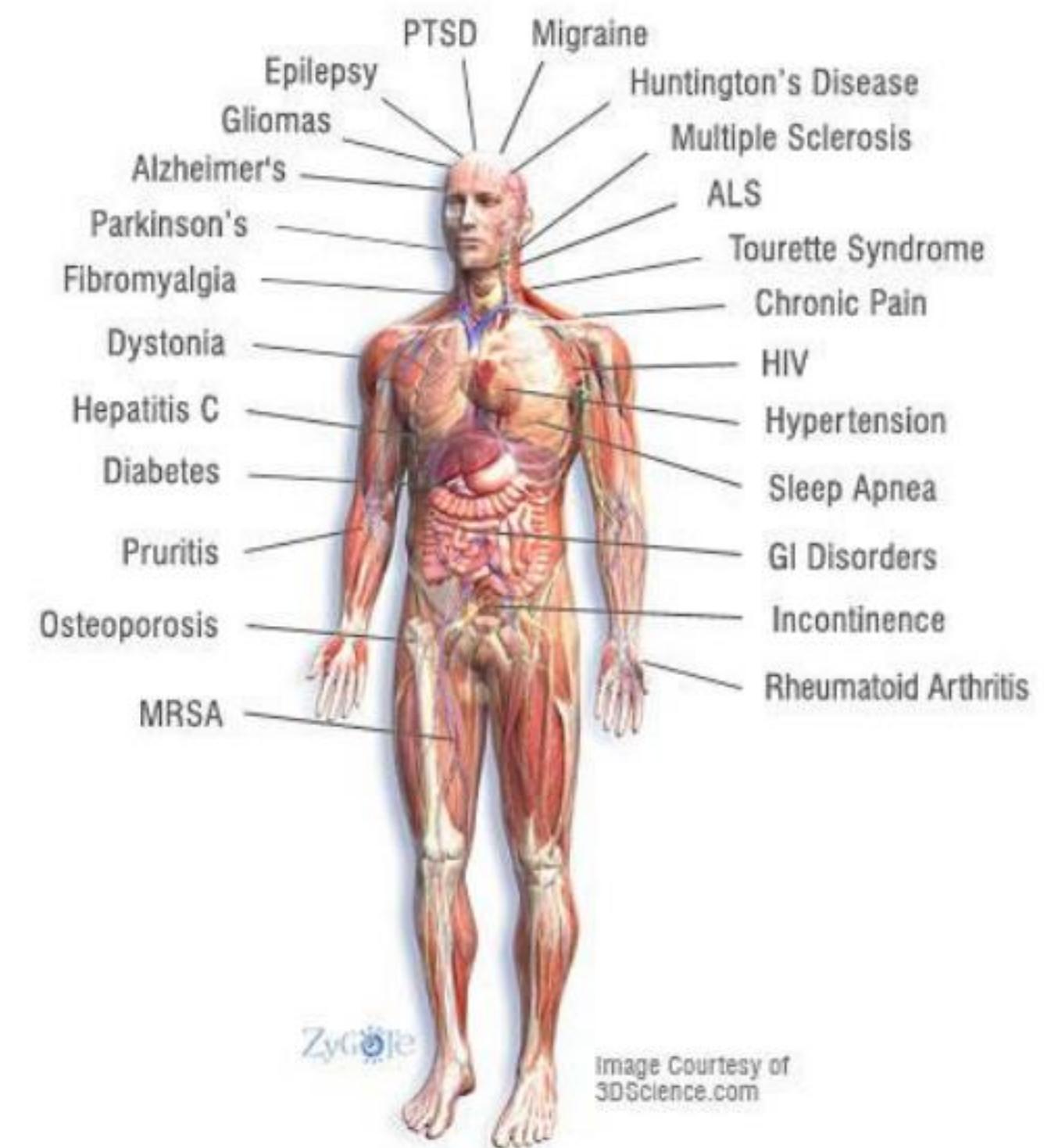
müv™

# CANNABIS IS A WHOLE MEDICINE CABINET



Cannabis contains:  
450+ medical properties  
120+ cannabinoids  
100+ terpenes

**THE ENTOURAGE EFFECT**  
Cannabinoids work together to enhance their healing efficacy



## DOSING IS THE KEY

# WHAT ARE CANNABINOIDS?

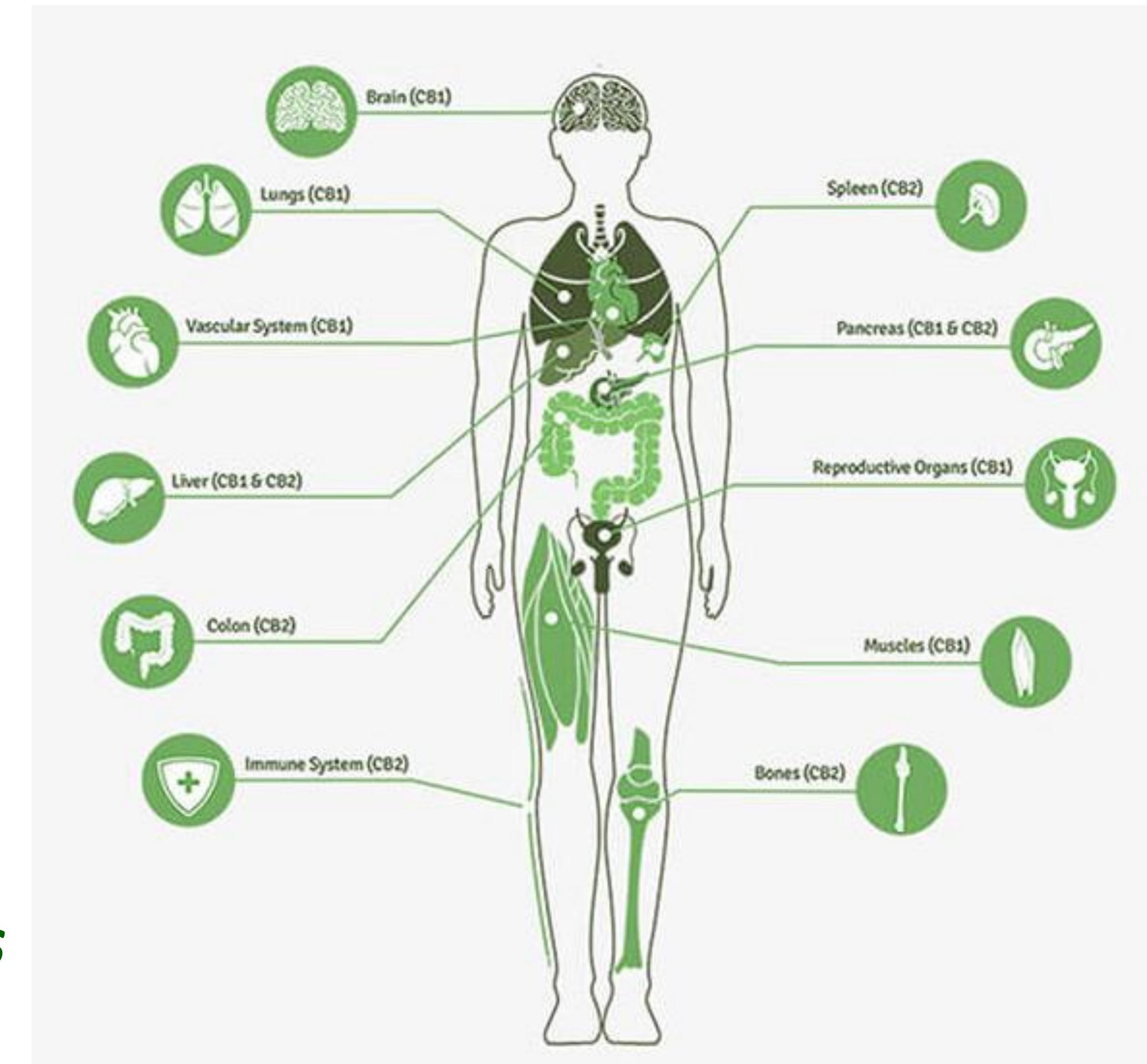
**can·nab·i·noid**

/'kanəbə,noid/ the active ingredients in cannabis,  
a group of closely related compounds

## ***HOMEOSTASIS - Your Body in Balance***

Your endocannabinoids communicate with  
your nervous system to keep all these things  
within acceptable parameters.

***Cannabinoids can treat numerous medical problems***



# WHY ARE CANNABINOIDS IMPORTANT?

## CURRENT USES OF CANNABINOIDS

- Alleviate pain and inflammation, especially chronic forms, from diseases such as [arthritis](#), [fibromyalgia](#), [endometriosis](#), [glaucoma](#), [neuropathy](#), and [Crohn's disease](#)
- Increasing appetite to prevent the [extreme weight loss of AIDS](#)
- Improving muscle control/lessening spasticity in conditions such as [Parkinson's disease](#) and [Huntington's disease](#)
- Controlling [epileptic seizures](#), especially in children
- Treating [mental illnesses](#), including [post-traumatic stress](#) (PTS), [bipolar disorder](#), and multiple anxiety disorders
- Treating addiction, including [smoking cessation](#)

Because it alleviates pain and inflammation while also regulating the immune system, also under investigation as treatments of **diseases of the immune system**:<sup>1</sup>

- [HIV/AIDS](#)
- [Multiple sclerosis \(MS\)](#)
- [Lupus](#)
- [Crohn's disease](#)

**Possible Future Uses:** Early studies suggest cannabinoids may be beneficial at fighting cancer by:<sup>1</sup>

- *Helping kill some cancer cells - Reducing the size of some other cancers*
- *Slowing the growth of cancer cells* in one of the most serious types of brain tumor
- Reducing nausea from [chemotherapy](#)
- Increasing the effectiveness of [radiation treatments](#)

<sup>1</sup> National Institutes of Health:  
National Institute on Drug Abuse. [Marijuana as medicine](#).

# CANNABINOID INFORMATION

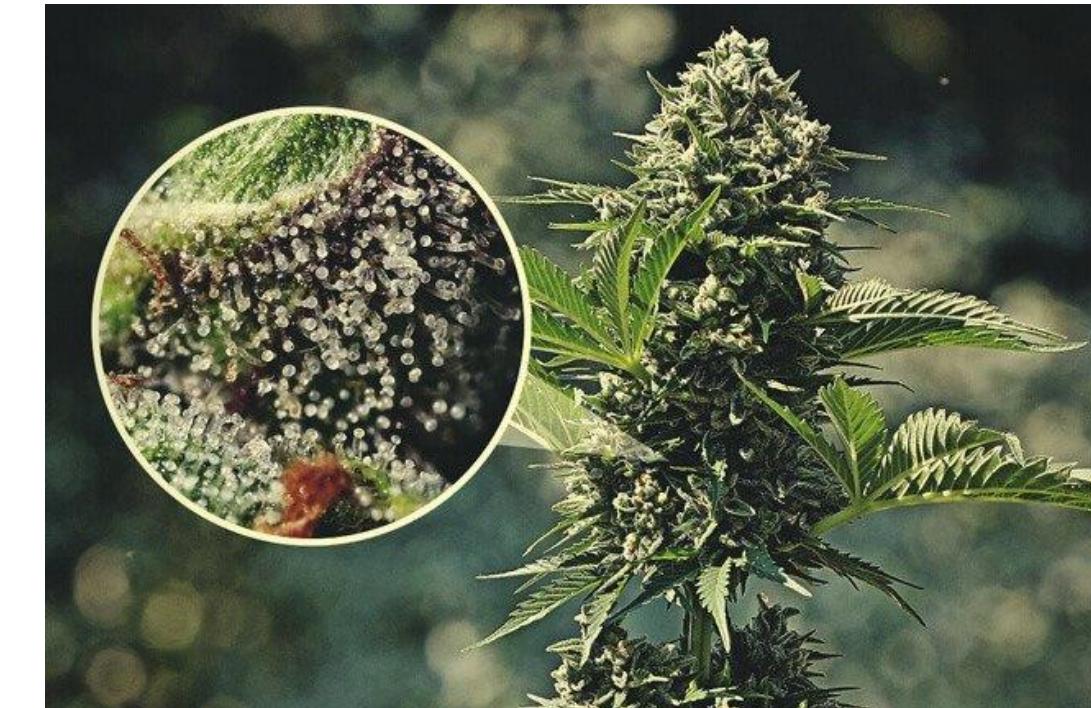
There are **200+ known cannabinoids in cannabis**, most of them recently discovered

There are two types of cannabinoids

- *Endocannabinoids are produced naturally in our bodies*
- *Phytocannabinoids are produced by the cannabis plant*
  - Are **structurally identical** to the Endocannabinoids made by the body.
  - Phytocannabinoids mimic endocannabinoids and **bind** to specific endocannabinoid receptors to change how the human body sends or receives messages using the central nervous and immune systems.

Cannabinoids can be found in practically every part of the cannabis plant; however, the flowers contain the most.

Cannabinoids are abundant on trichomes, which are hair-like structures on cannabis plant flowers.



# How Cannabinoids Produce Effects in the Body

- There are many different cannabinoid receptors
- Different Cannabinoids interact with specific receptors



A2A: inflammation & coronary circulation

GPR55 - blood pressure

VR1: body temperature & pain

5HT - serotonin receptors [regulating the digestive process, blood flow and breathing]

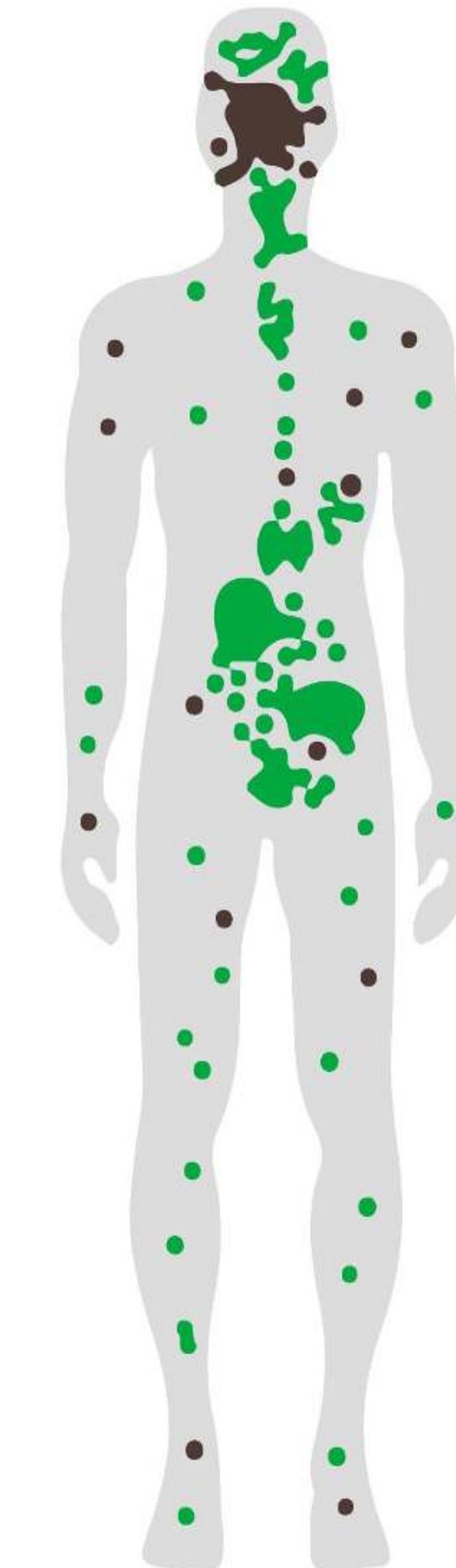
# The Endocannabinoid System

## THE HUMAN ENDOCANNABINOID SYSTEM

The endocannabinoid system is comprised of two types of receptors, CB1 and CB2, which serve distinct functions in human health and well-being.

***IT HELPS YOUR BODY MAINTAIN HOMEOSTASIS***

**CBD, THC and other Cannabinoids fit like lock and key into existing human receptors.** These receptors are part of the endocannabinoid system which impact physiological process affecting pain modulation, sleep, memory, appetite, anti-inflammatory effects and other immune system



## HUMAN ENDOCANNABINOID SYSTEM

### CB1

CB1 Receptors Target

- Motor Activity
- Thinking
- Motor Co-ordination
- Appetite
- Short Term Memory
- Pain Perception
- Immune Cells

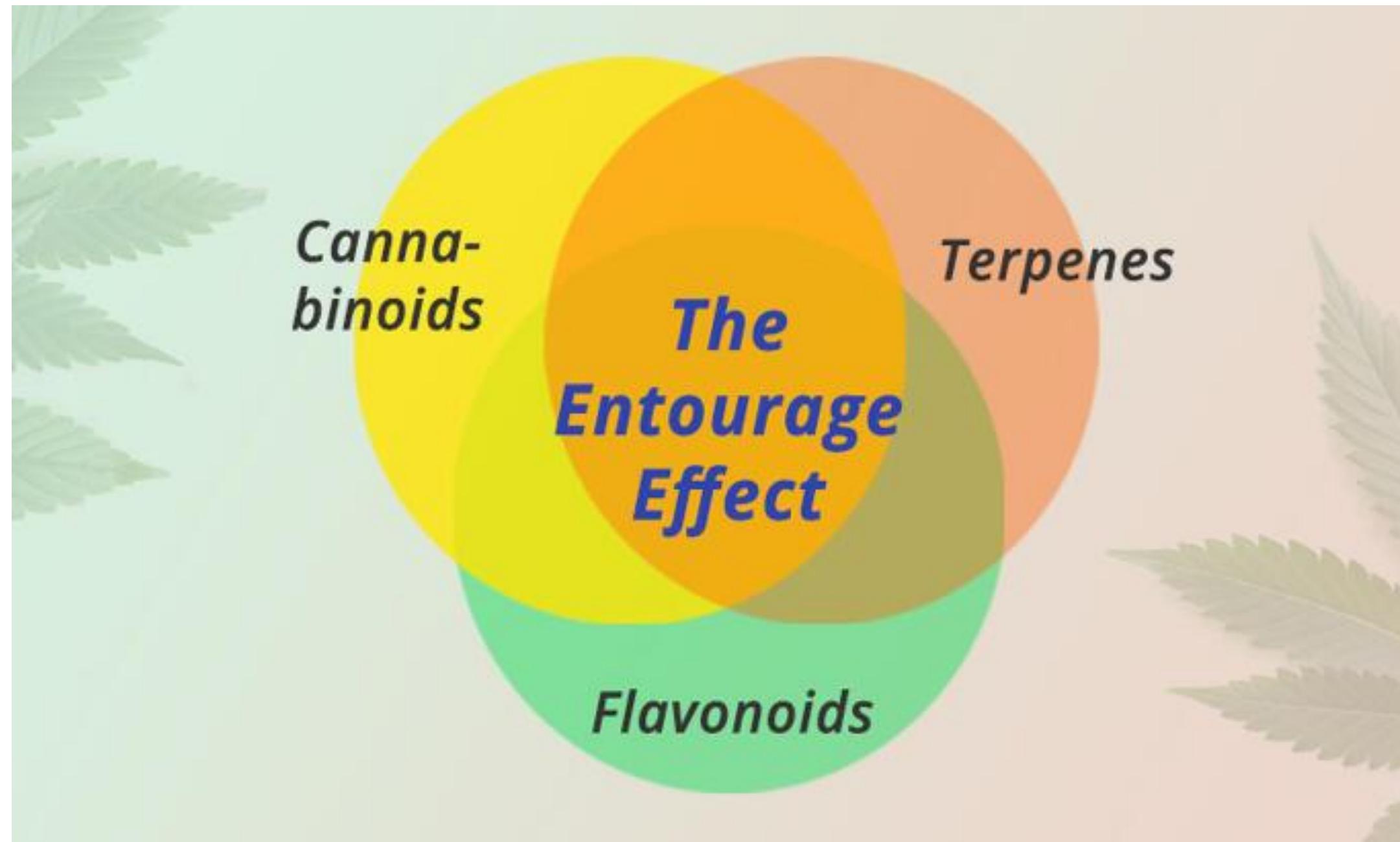
### CB2

CB2 Receptors Are Much Broader Than CB1 And Influence Most Of The Body

- Gut
- Kidneys
- Pancreas
- Adipose Tissue
- Skeletal Muscle
- Bone health
- Eyes
- Tumours
- Reproductive System
- Immune System
- Respiratory Tract
- Skin health
- CNS
- Cardiovascular System
- Liver

 AMSTERDAM GENETICS

# THE ENTOURAGE EFFECT



## The entourage effect

The synergy of compounds found in cannabis [cannabinoids, terpenes and flavonoids] which result in the enhanced efficiency of all compounds.

### For Example

- CBD lessens the psychoactive effect of THC
- Terpenes enhances cannabis' medical effects
- CBN is enhanced when used with THC & CBD

# MEDICAL MARIJUANA/CANNABIS EVOLUTION



Sativa

- Tall in stature
- Narrow leaves
- Longer flowering cycles
- Better suited for warm climates with long season



Indica

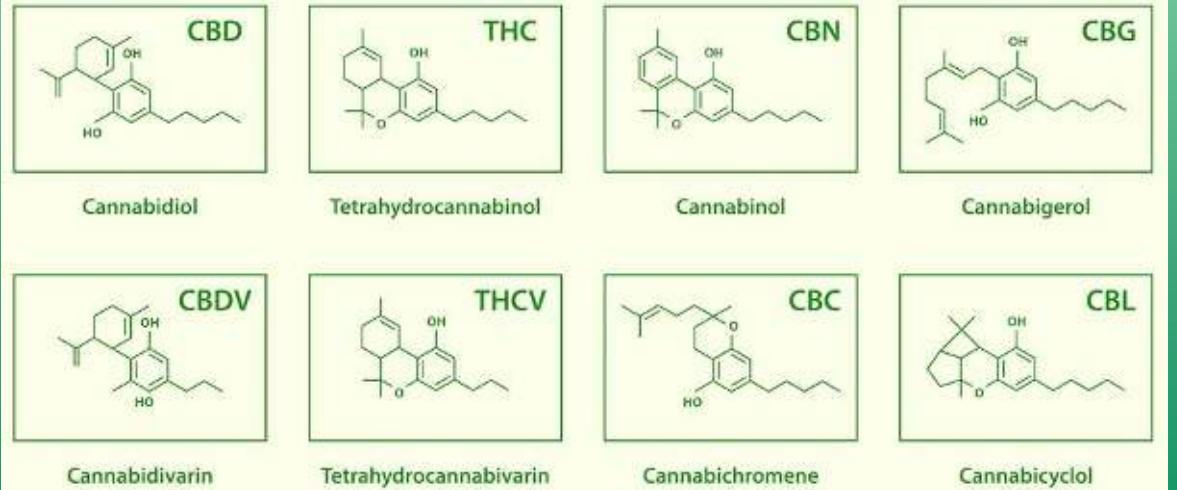
- Short in stature
- Broad leaves
- Shorter flowering cycles
- Better suited for colder climates with shorter season



# MEDICAL CANNABIS EVOLUTION

## Strains Indica & Sativa

### Cannabinoids



### Terpenes



The most scientifically sound way to classify various types of flower is via **chemotypes** (also called **chemovars** or **cultivars**).

**Cultivars** describe plants based on the chemical compounds that they produce, somewhat akin to a **chemical fingerprint**



The goal is to find the **lowest effective dose** that allows a patient to **experience positive results** while **minimizing negative side effects**



# BEST CANNABIS CULTIVARS & TERPENES FOR PAIN MANAGEMENT

CULTIVAR	PRIMARY TERPENES	CANNABINOID PROFILE	COMMENTS
The White	Caryophyllene, myrcene, limonene	THC-dominant	Known for its pain-relieving qualities. Typically boasts high levels of caryophyllene alongside a hearty cannabinoid content.
Blackberry Headband	Not enough data	THC-dominant	Delivers focused headache relief and a sweet berry flavor.
CBD Critical Mass	Myrcene, pinene, caryophyllene	Balanced THC/CBD	Delivers a one-two punch of THC and CBD to chase pain and inflammation out the door
Master Kush	Caryophyllene, limonene, myrcene	THC-dominant	aka "High Rise," "Grandmaster Kush," and "Purple SoCal Master Kush"

# BEST CANNABIS CULTIVARS & TERPENES FOR PAIN MANAGEMENT

CULTIVAR	PRIMARY TERPENES	CANNABINOID PROFILE	COMMENTS
ACDC	Myrcene, pinene, caryophyllene	CBD-Dominant	Consumers find physical relief with little to no detectable euphoria, <sup>[SEP]</sup> making this strain a great solution for pain when needing to stay <sup>[SEP]</sup> sharp, focused, and productive.
Blackberry Kush	Myrcene, limonene, caryophyllene	THC-dominant	Addresses throbbing aches and pains.
Harlequin	Myrcene, pinene, caryophyllene	High-CBD Strain	Its uplifting and clear-headed effects set it apart from heavier, <sup>[SEP]</sup> more intoxicating options and make it a perfect choice <sup>[SEP]</sup> for daytime medicating.

- For pain, try strains with a balance of THC and CBD
- Early research suggests that the terpene caryophyllene may be beneficial for pain & inflammation. More studies needed.

# CULTIVARS & TERPENES FOR ANXIETY & STRESS (1 of 2)

CULTIVAR AKA STRAIN	PRIMARY TERPENES	CANNABINOID PROFILE	COMMENTS
<b>ACDC</b>	myrcene, pinene, caryophyllene	CBD-Dominant	Patients find physical relief with little to no detectable euphoria, making this strain a great solution for pain when needing to stay sharp, focused, and productive.
<b>Granddaddy Purple</b>	myrcene, pinene, caryophyllene	THC-dominant	Eases you into a peaceful mindset while urging your body to release all that stress and tension.
<b>Jack Herer</b>	myrcene, pinene, caryophyllene	THC-dominant	Jack Herer provides a mood adjustment without taxing your much-needed physical energy, making it a worthy consideration if anxiety strikes early in the day.
<b>Canna-Tsu</b>	myrcene, pinene, caryophyllene	Balanced THC/CBD	Offers gentle effects that are easier to manage. Find that peaceful mindset without the worry of overdoing it with too much THC.
<b>Jillybean</b>	myrcene, pinene, caryophyllene	THC-dominant	Manages to walk the fine line between energizing and calming, giving you a sense of balance in your day.

SPEAKERS WILL TAKE QUESTIONS DURING DESIGNATED Q&A SECTIONS  
 SUBMIT YOUR QUESTIONS ON ONE OF THE NOTECARDS DISTRIBUTED BY OUR EVENT COORDINATOR

# CULTIVARS & TERPENES FOR ANXIETY & STRESS (2 of 2)

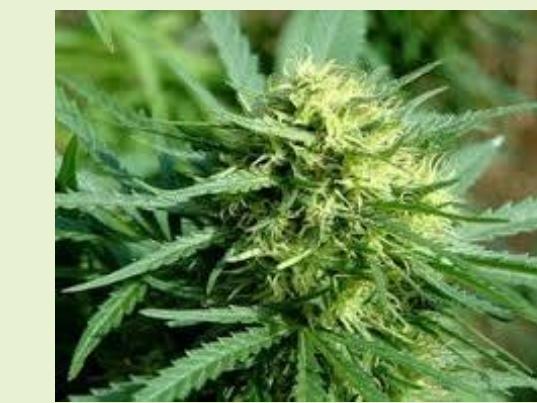
CULTIVAR AKA STRAIN	PRIMARY TERPENES	CANNABINOID PROFILE	COMMENTS
<b>Purple Urkle</b>	myrcene, pinene, caryophyllene	THC-dominant	A pacifying strain that can soften anxiety while guiding you into restful sleep.
<b>Remedy</b>	myrcene, pinene, caryophyllene	CBD-dominant	A no-frills cannabis strain with one purpose: to walk you calmly through your anxiety toward a more peaceful mindset.
<b>Sour Diesel</b>	myrcene, limonene, caryophyllene	THC-dominant	Delivers dreamy, cerebral, fast-acting and energizing.
<b>Girl Scout Cookies</b>	myrcene, limonene, caryophyllene	THC-dominant	Patients consider this strain one of the best for anxiety because it relieves stress, physical pain, and symptoms of depression.
<b>OG Kush</b>	myrcene, limonene, caryophyllene	THC-dominant	A reliable strain for those who are looking for stress relief. This strain produces a euphoric feeling and can help reduce stress, anxiety, and help with depression.

**SPEAKERS WILL TAKE QUESTIONS DURING DESIGNATED Q&A SECTIONS**  
**SUBMIT YOUR QUESTIONS ON ONE OF THE NOTECARDS DISTRIBUTED BY OUR EVENT COORDINATOR**

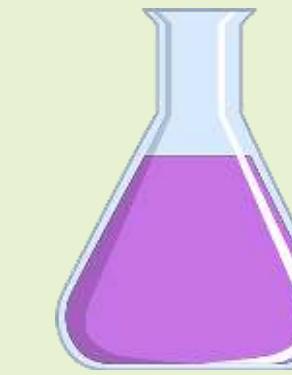
# HOW CANNABIS WORKS



Endocannabinoids  
(Brain-derived)  
Foods: Omega 3's, Omega 6's  
Anandamide [AEA]



Phytocannabinoids  
(Plant-derived)  
Buds, Tinctures, Extracts  
THC, CBD, CBN, etc



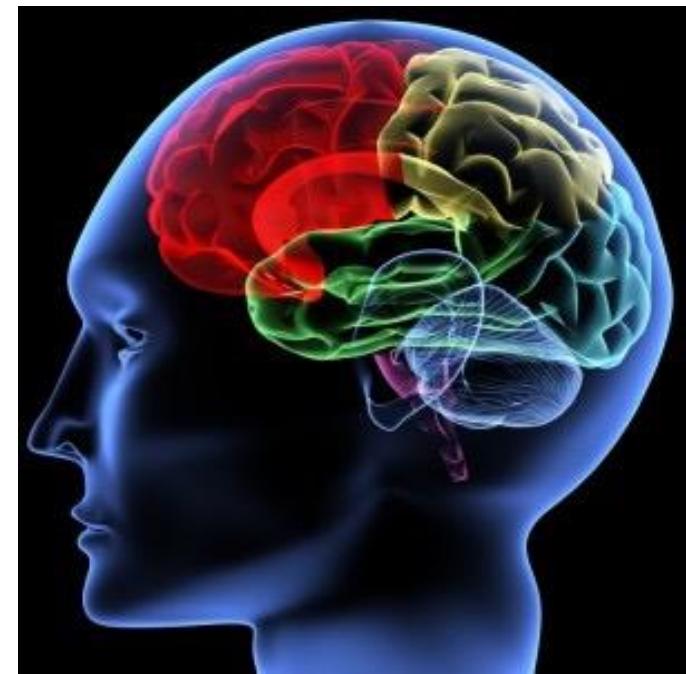
Synthetic Cannabinoids  
(Pharmaceutical Labs)  
Patent Synthesized Compound  
THC Only - Marinol, K2, Spice

Endocannabinoids  
(Brain receptors)  
CB1, CB2, etc

The endocannabinoid system [ECS] regulates a variety of physiological processes including appetite, pain, sleep, pleasure sensation, immune system, mood and memory.

# CANNABIS HELPS YOUR BODY PRODUCE ITS OWN MEDICINE

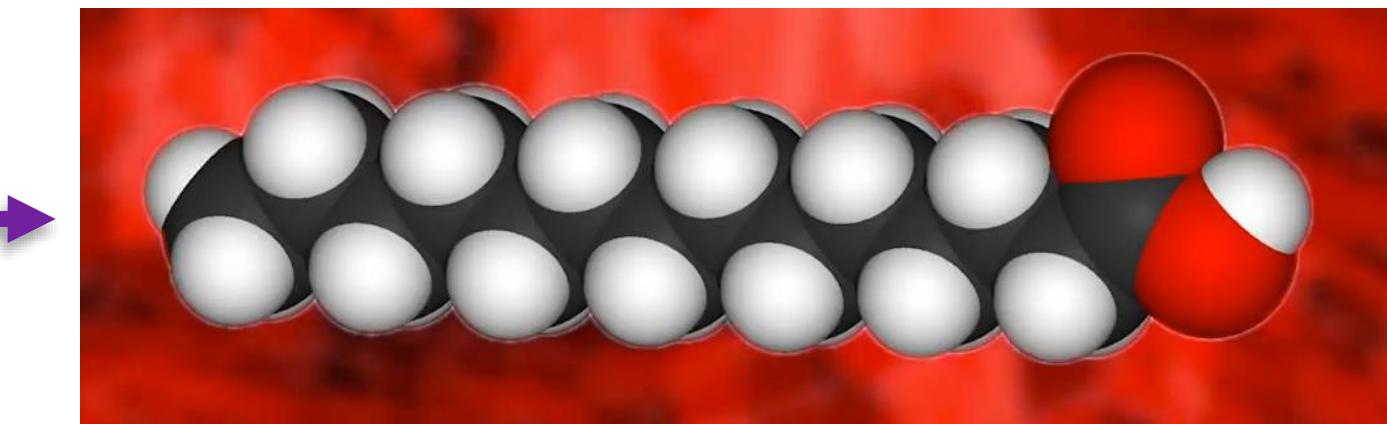
Endocannabinoids



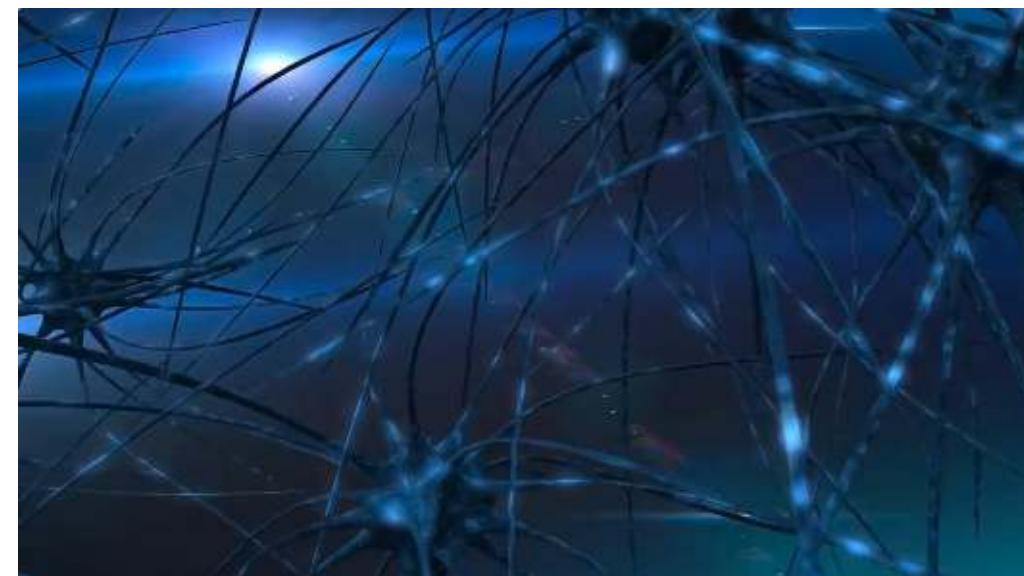
Endocannabinoids  
(brain-derived)



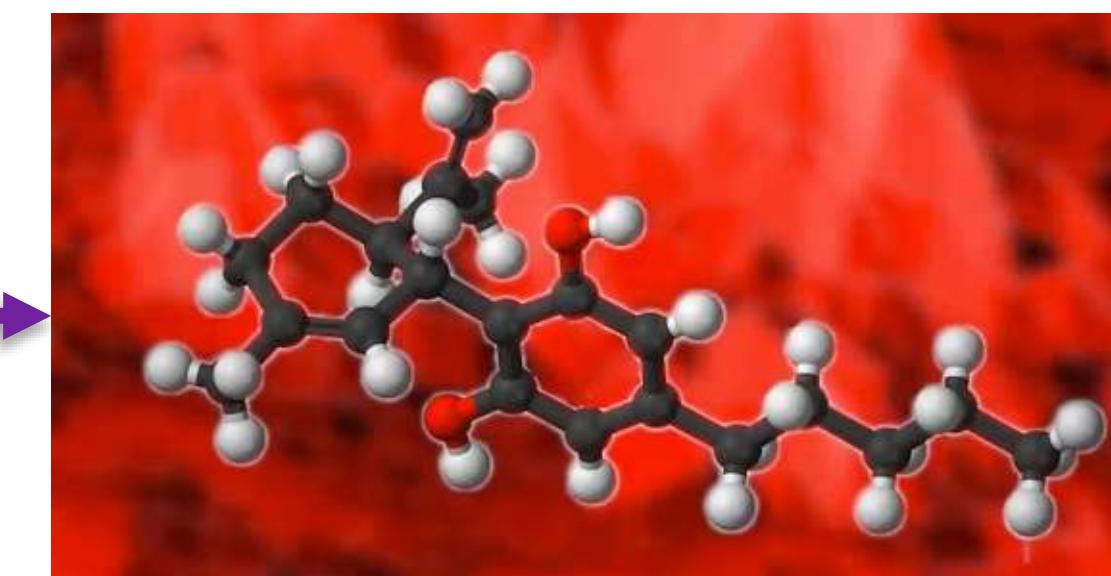
Phytocannabinoids  
(plant-derived)



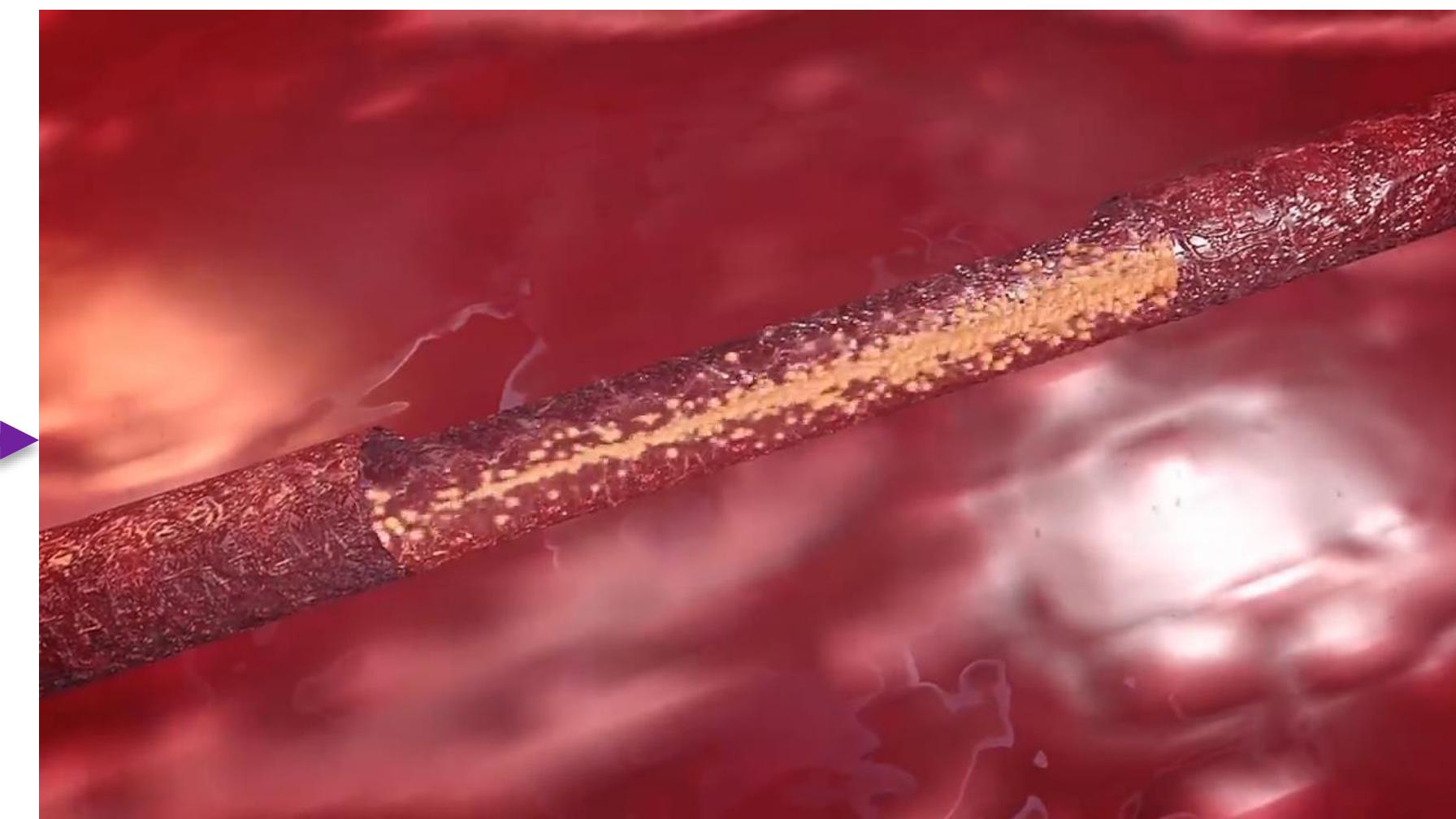
Fatty Acids



Neurons



Long Chain Fatty Acids



The body produces and distributes  
endocannabinoids

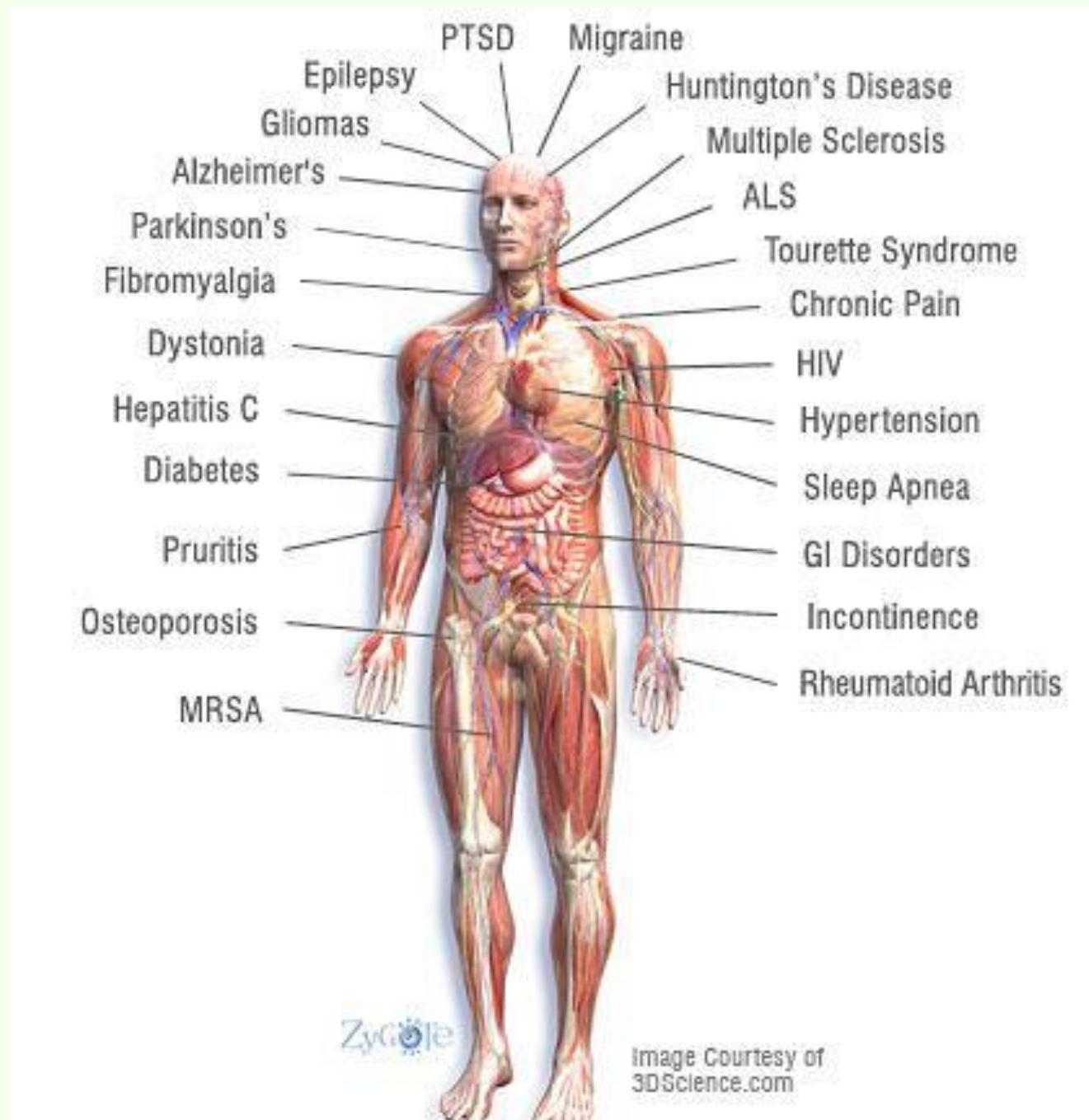
# What is dosing, and why does it matter?

Every person's body has a unique reaction to cannabis based on tolerance, experience, medical conditions, and their individual anatomy and physiology.

*You might compare it to the way your body reacts to substances like alcohol and caffeine.*

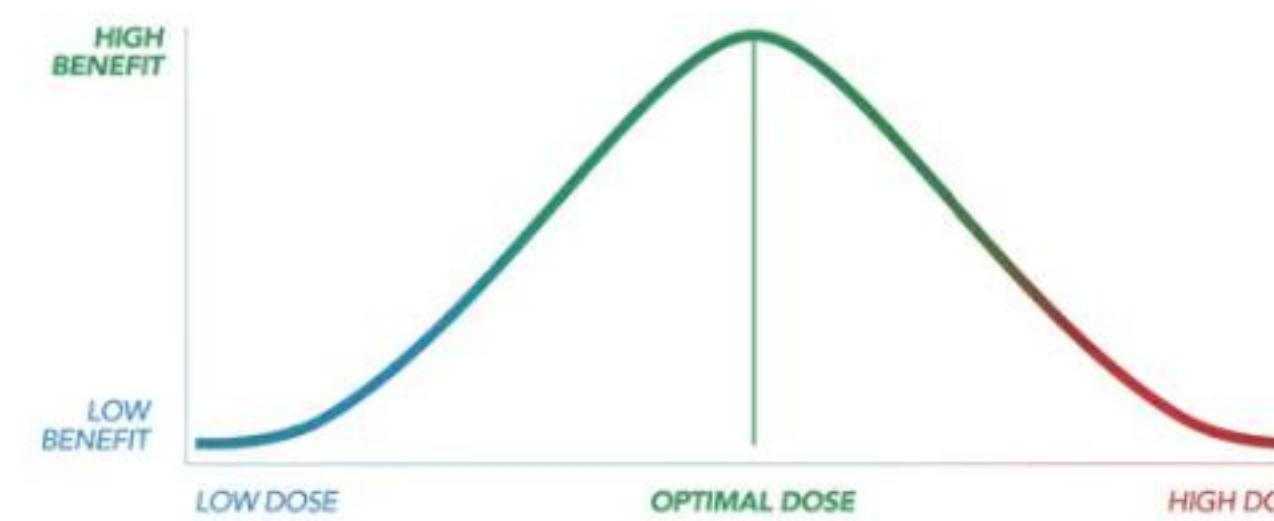
NOTE: Your doctor/dispensary needs your input to identify your unique dosing recommendation [aka your "Sweet Spot"]

- What is your tolerance to CBD? What is your tolerance to THC?
- What terpenes work best for your condition?
- What dosing forms are you comfortable with?



Potential Therapeutic Uses of Medical Marijuana

# FINDING THE “SWEET SPOT”

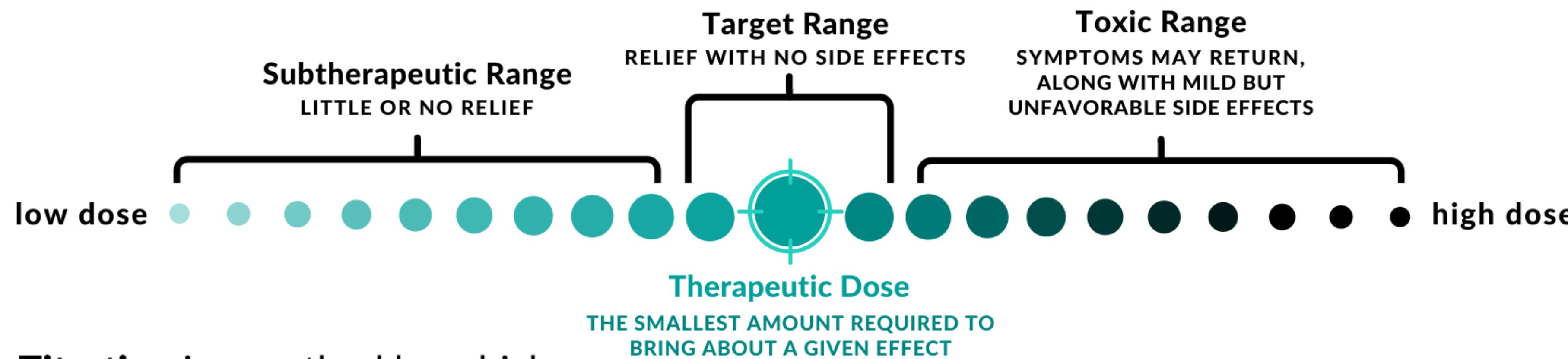


The goal is to find the **lowest effective dose** that allows a patient to **experience positive results** while **minimizing negative side effects**

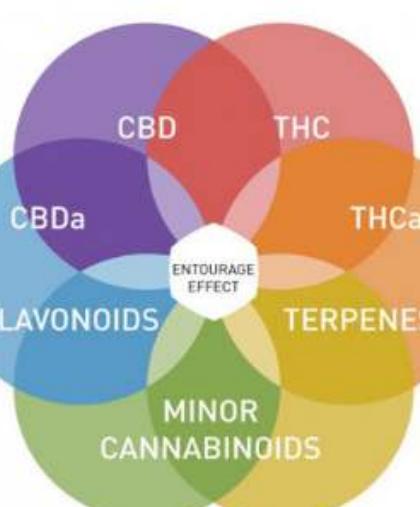
**Tolerance** varies enormously between individuals.

*You might compare it to the way your body reacts to substances like alcohol and caffeine*

# WHAT IS DOSING TITRATION?



**Titration** is a method by which a patient slowly raises their dose until they find the ideal balance between efficacy and tolerability. A patient titrates by slowly raising their dose in order to find their sweet spot.



**Subtherapeutic, target, and toxic ranges are unique to the individual.** Journaling to keep track of your symptoms and relief as you vary your regimen can help you to identify patterns and locate your therapeutic dose.

Every person has a unique reaction to cannabis based on:

- Metabolism
- Medical condition
- Anatomy
- Experience with cannabis
- Endocannabinoid System (Physiology)

Other factors include

- Route of Administration
- Dose (quantity, concentration, CBD to THC ratio)
- Cannabinoid content
- Individual product formulation

# FINDING YOUR SWEET SPOT

## GO LOW AND GO SLOW

Individuals should start with a low dose and titrate up slowly until they find the right dose that works for them

The goal is to identify:

- Optimal therapeutic dose
- Tolerance for THC
- Tolerance for CBD
- Terpenes for your condition

**Listen to your body, it will tell you when something is or is not working**

Factors to consider

- Cannabis compounds can be stored in the body's fat cells for 30 days or more.
- Cannabis works better with food because it binds to fatty acids
- Journal to know what cannabis product, taken when and how often, and in what dose will produce the best result. Your medication regime should address all 24 hours in a day.
- Patients who take THC may want a bottle of CBD tincture on hand in case of unwanted or excessive psychedelic effects

# DOSING METHODOLOGY USING SUBLINGUAL TINCTURE DROPS

- Before taking your medication, write down the date, time, dose [ml & mg], and product
  - + How do you feel?
  - + Are your usual symptoms present, lessened, absent?
  - + Do you feel any discomfort or adverse effects?
- *Start with a 1:1 CBD to THC ratio product  
(tincture oil is good for titration)*
  - + 1.25ml [2mg] or 2.5ml [4mg] of THC:CBD
  - + Once daily for 2 or 3 days [depending how you feel]
- *If no relief and no negative effect, you might titrate up to 2.5ml [4mg], twice a day*
  - + Titrate three times a day for 2 days
  - + Titrate up to 5ml [8mg], twice a day
  - + Titrate 5ml [8mg], three times a day
- *Continue by titrating up to 7.5ml [12mg] for 2 days, then 10ml [16mg] for 2 days,  
continue until you feel therapeutic relief or experience a high dose symptom*  
*NOTE: take an equal amount of CBD tincture to counteract the high dose symptom*



# HOW DO I FIND MY “SWEET SPOT”

- Titrate down 2.5ml [4mg] - check that “high dose” symptoms are gone AND relief is obtained.
  - If relief is partially obtained, titrate up the amount of CBD only  
*NOTE: 2:1 Ratio [2CBD:1THC], 4:1, 8:1, 12:1 and/or 20:1*
  - Continue until you find your therapeutic dosage
- 

## NEXT STEPS

- Develop a dosing regime to cover your needs 24 hrs a day
- Add new Routes of Administration
- Consider microdosing



# OPTIONS FOR CBD AND/OR THC USE

Products with THC can ONLY be purchased from a Florida licensed dispensary with a Florida Medical Marijuana Registry ID Card entered by a physician.

Hemp-derived CBD products are available without a medical marijuana card and can be purchased outside of a dispensary. NOTE: Look for the Certificate Of Analysis [COA] on the product package

MMTC physicians generally recommend full-spectrum CBD products to maximize the entourage effect

# PHYSICIAN-RECOMMENDED HEMP CBD PRODUCTS



BOTANICA  
WELLNESS

OILS - CAPSULES - EDIBLES  
TOPICALS - CBD PET PRODUCTS

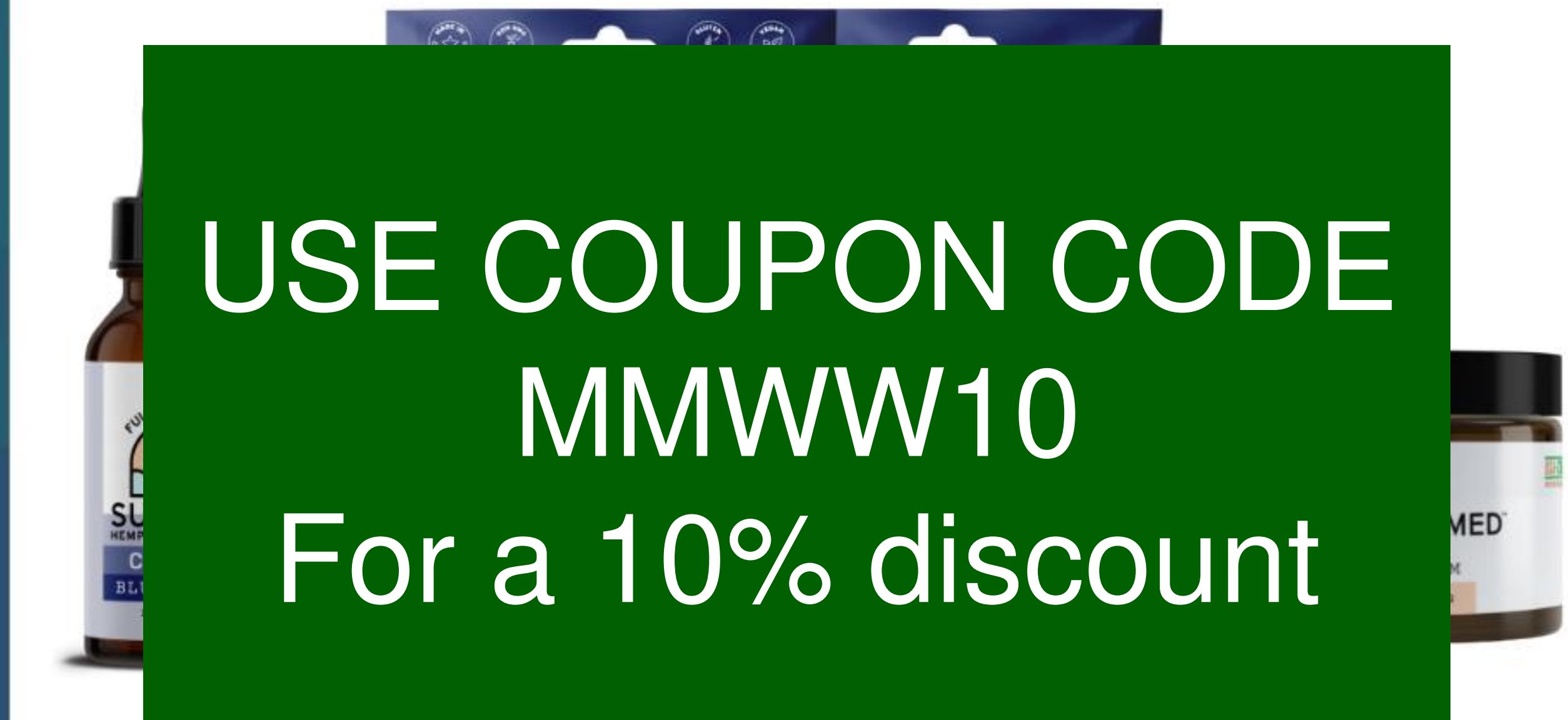
FIRST-TIME BUYERS  
RECEIVE 20% OFF

MMTC PATIENTS ALWAYS  
RECEIVE 10% OFF PURCHASES

Available at MMTC clinics & online  
[MyBotanicaWellness.com](http://MyBotanicaWellness.com)

Full-spectrum hemp CBD products contain a wide variety of cannabinoids other than THC

This allows maximum engagement with the endocannabinoid system allowed for the sale of hemp-based products



USE COUPON CODE  
MMWW10  
For a 10% discount

Full Spectrum Nighttime  
Tincture Blueberry - 1000mg

Whole Plant Full Spectrum Tincture  
Strawberry - 2000mg - 30mL

Nightime CBN edibles  
5ct Trial Packs 125mg

Nightime CBN  
edibles 750mg

Full Spectrum  
Topical 1000mg

# 2022



## Medical Marijuana & Wellness Series

WEEKLY DISCUSSIONS WITH INDUSTRY EXPERTS

### DID YOU KNOW?

We hold these events online every week!

Watch recordings, get presentation slides, view speaker info and FAQ, sign up to watch live events, and contact our team at

**MarijuanaAware.com**

### UPCOMING EVENTS

MARCH 9 Terpenes

MARCH 16 Routes of Administration

MARCH 23 Post-Traumatic Stress

MARCH 30 Micro-dosing with Ketamine

Our weekly webinars are a series of live online education events held by Florida medical marijuana experts with a mission to educate the public on the complex medical abilities and uses of cannabis with beginner-friendly language.

Medical Marijuana Awareness & Wellness Webinars



MedMarAware



MarijuanaAware



[MarijuanaAware.com](http://MarijuanaAware.com)

### PAST EVENT TOPICS INCLUDE:

Anxiety and Stress  
Arthritis  
Cannabis Basics  
Cannabinoids  
CBD  
Chronic Pain  
Cancer

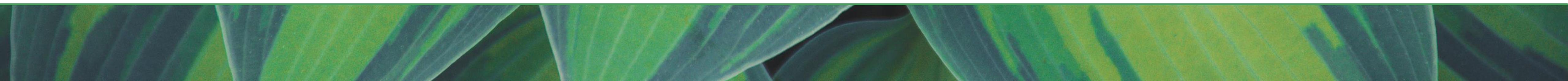
Dispensaries  
Demystifying Delta-8  
Dosing  
Cooking and Edibles  
Fibromyalgia  
Gastrointestinal Disorders  
Glaucoma

Ketamine  
Longevity and Aging  
Migraines  
Multiple Sclerosis  
Myositis  
Neuropathy  
Parkinson's Disease

Post-Traumatic Stress  
Seniors  
Sleep and Insomnia  
Terpenes  
Medical Marijuana Topicals  
Treatment for Addiction

# THE BOTTOM LINE

- You are not going to get unexpectedly or uncomfortably high – you're in control
- You are not going to get addicted
- You cannot overdose with cannabis because your body produces its own cannabinoids
- Cannabis has an Entourage Effect, meaning that it treats more than one condition



# BALANCED LIVING

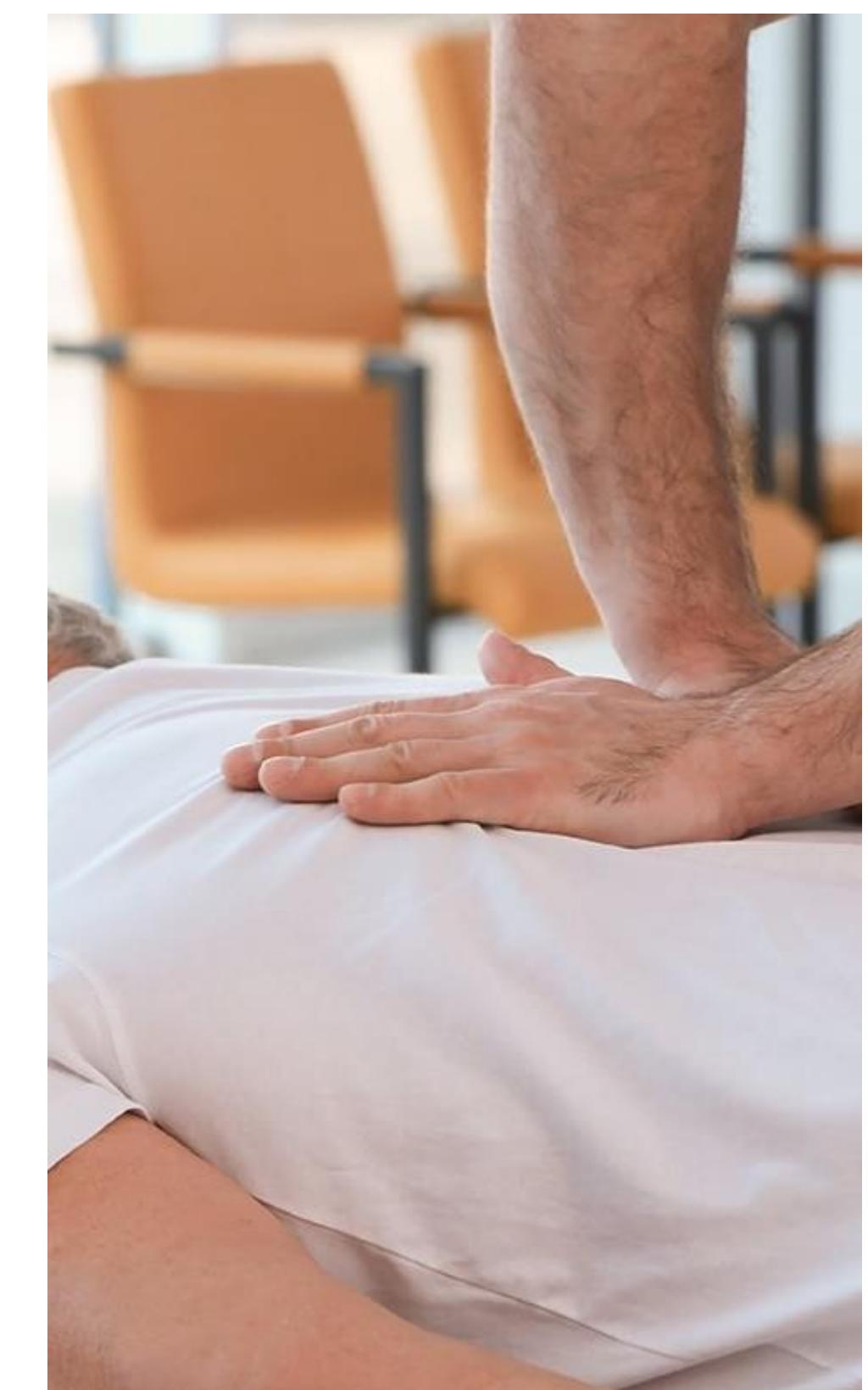
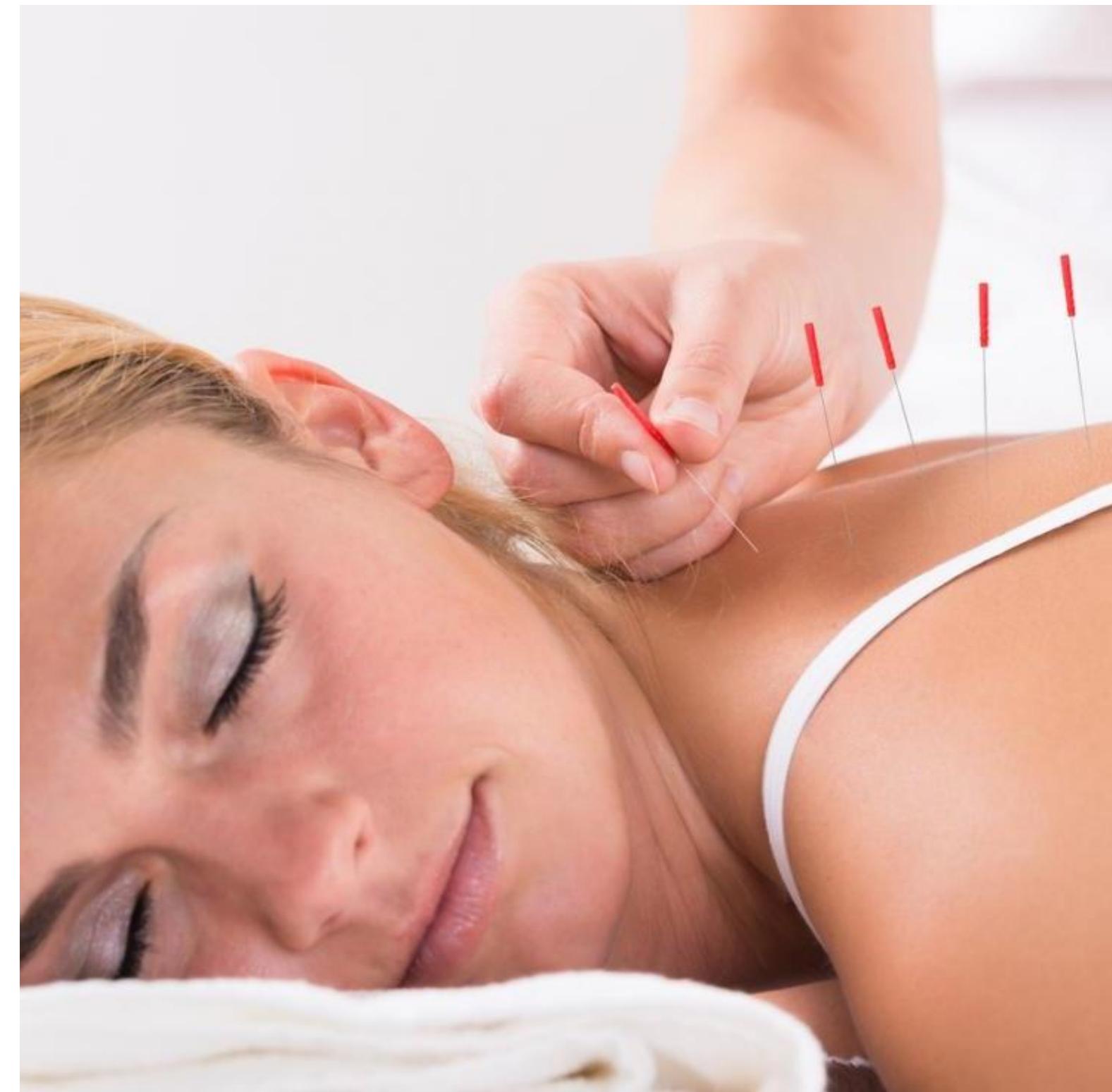
## A SENSE OF RESTORATION & CONTROL

Therapy with a qualified professional

Lifestyle and dietary changes

Meditation and mindfulness

Basic self-care



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CannaMD: Medical Marijuana Studies - <https://www.cannamd.com/medical-marijuana-studies/>

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