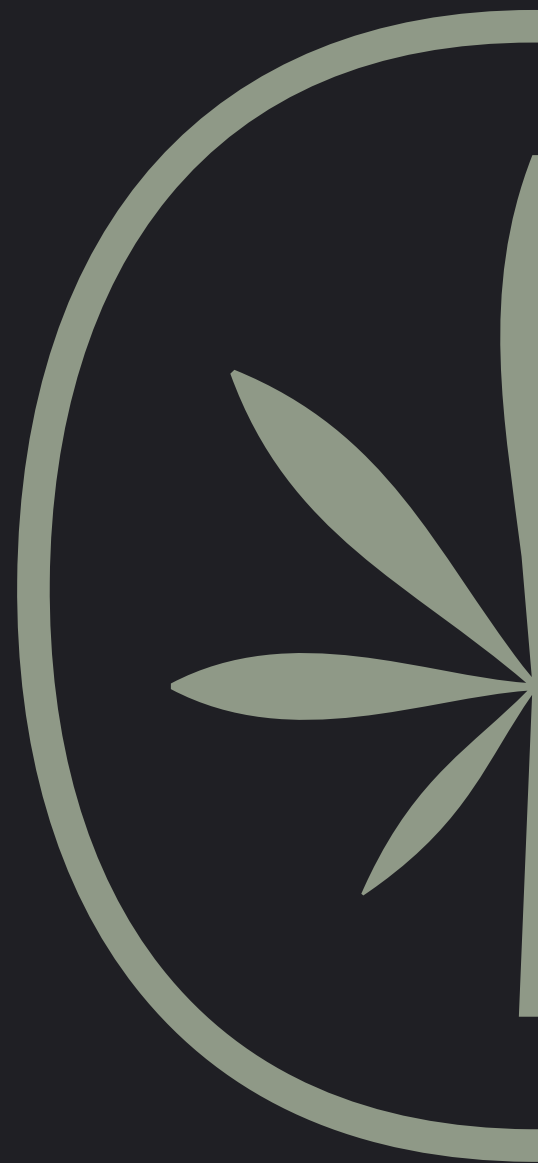


EDUCATION GUIDE

Updated: November 2019



A P O T H E C A R E

A N N A R B O R

OPEN 7 DAYS A WEEK
MONDAY - SUNDAY
10 AM - 7 PM

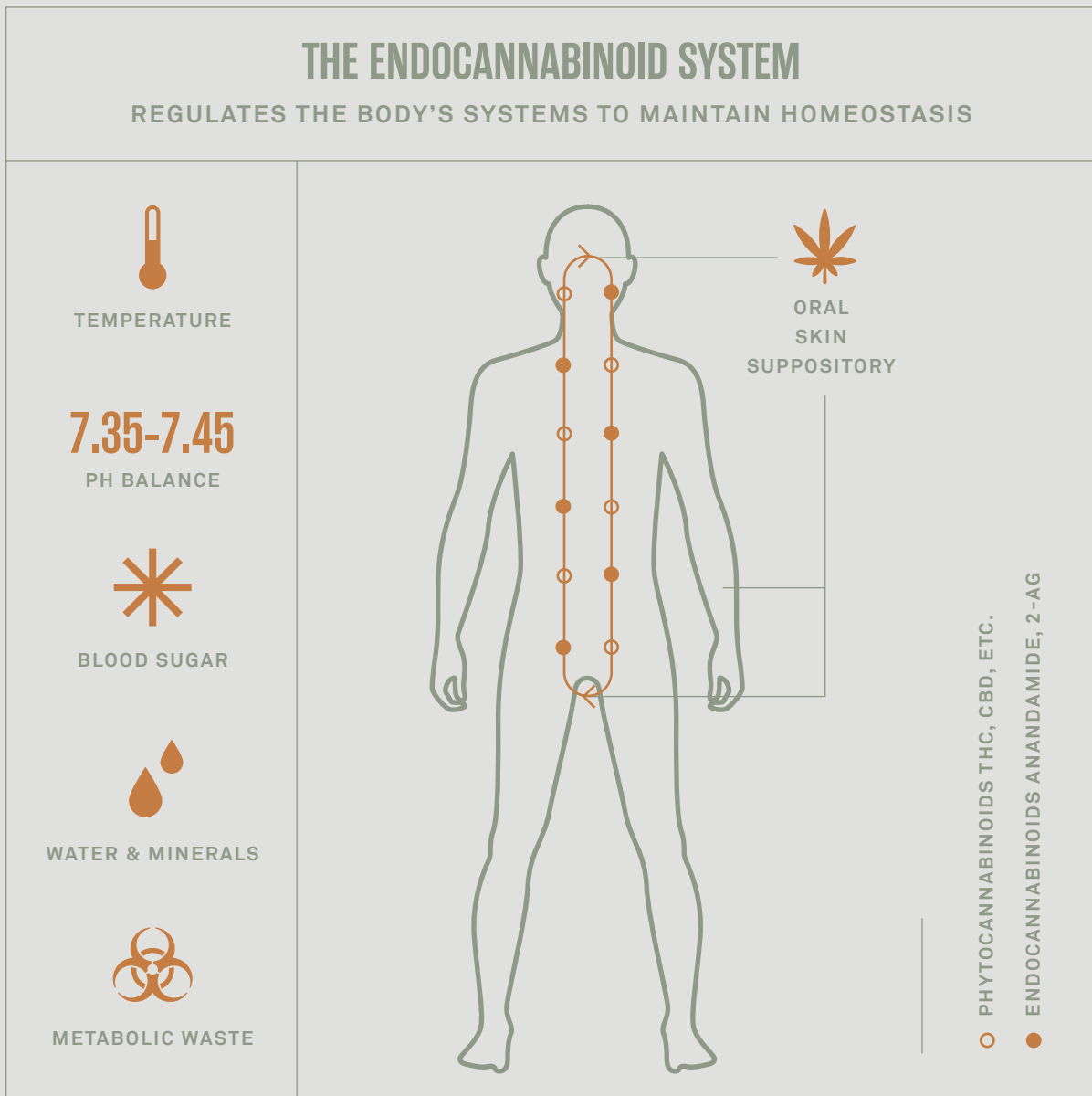
2793 PLYMOUTH ROAD
SUITE K 2ND FLOOR
ANN ARBOR, MI 48105

FIELD NOTES

LEARN ABOUT CANNABIS FROM OUR EXPERT STAFF

WHAT IS THE ENDOCANNABINOID SYSTEM?

Think of it as a master regulator of all of our body systems. We naturally make our own endocannabinoids which are responsible for maintaining many functions in the brain and body (sleep, energy, pain, pleasure, stress response, immune function, digestion, and much more). When we are stressed from an injury or infection, our endocannabinoid system helps us “get back to normal;” back to a state of homeostasis, or balance.

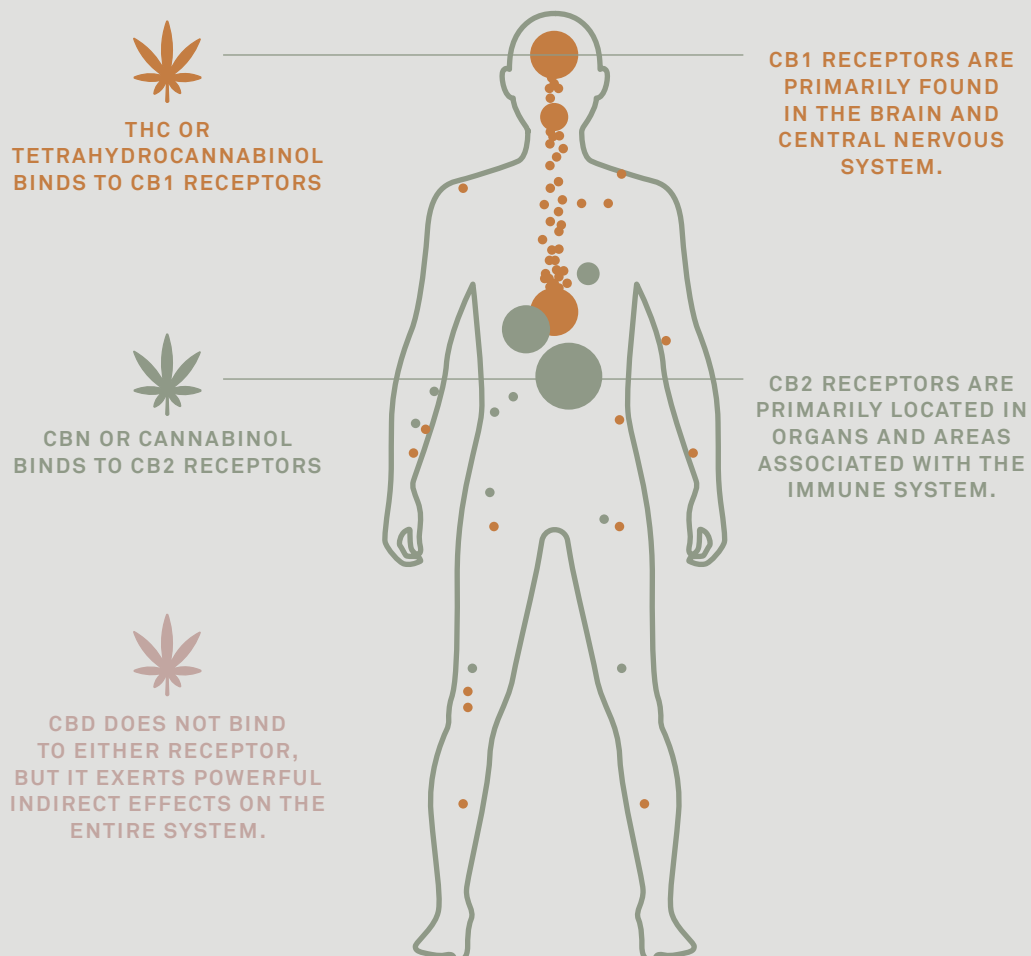


LEARN ABOUT CANNABIS FROM OUR EXPERT STAFF

OUR BODIES MAKE 2 MAIN ENDOCANNABINOIDS

1. AEA (Arachidonoyl ethanolamide) or anandamide, which binds to CB-1 receptors (as does THC).
2. 2-AG (2-Arachidonoyl glycerol), which binds to CB-2 receptors (as does CBN and β -Caryophyllene).

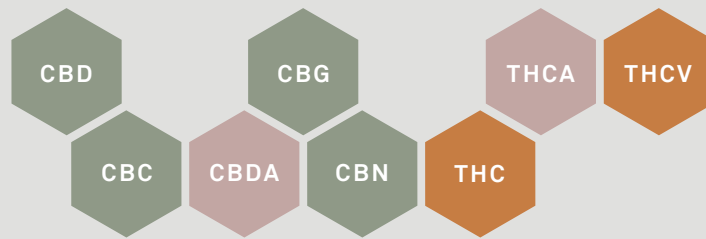
CB-1 receptors are primarily located in the brain and nervous system, while CB-2 receptors are mostly located in organs and areas associated with the immune system. Take note that CBD (cannabidiol) does not directly bind to either receptor, but it exerts its powerful beneficial effects by allowing the body's own natural neurochemicals to be longer-acting. It is a master chemical that not only potentiates anandamide, but it also influences positive benefits for the serotonin pathway (anti-depressant effect), PPAR-gamma pathway (regulating gene expression in cholesterol and inflammatory cascades), TRPV1 pathway (anti-psychoactive effect), and GPR55 pathway (anti-cancer and osteoprotective).



LEARN ABOUT CANNABIS FROM OUR EXPERT STAFF

WHAT ARE PHYTOCANNABINOIDS?

Phytocannabinoids are terpenes that are only found in the cannabis plant. They are most concentrated in the oils of glandular hairs on the flowers and leaves. There are hundreds of cannabinoids, the most well-known of which are THC and CBD. Other beneficial cannabinoids include THC-A, THC-V, CBD-A, CBN, CBC, CBC-A, CBG and CBG-A. Research on the components of cannabis is extensive and new information is available almost daily.



Other terpenes found in cannabis are also found in other plants, most commonly in their essential oils. The top 5 terpenes found in cannabis are β -Myrcene, β -Caryophyllene, α -Limonene, α - and β -Pinene, and Terpeneols. Other familiar terpenes such as linalool are found in some strains of cannabis, but more commonly associated with lavender.

CANNABINOIDS

Components that react to receptors in the nervous system, which results in various effects.

CBD, THC, CBC, CBN and many more



CAN BE FOUND IN PLANTS



CAN BE FOUND IN CANNABIS



CAN BE EXTRACTED FROM PLANT RESIN

TERPENES

Components responsible for flavor and aroma in marijuana and other plants. Can enhance the effects of cannabinoids.

Myrcene, Limonene, Linalool, Caryophyllene, etc.

LEARN ABOUT CANNABIS FROM OUR EXPERT STAFF

WHOLE PLANT MEDICINE AND THE ENTOURAGE EFFECT

Humans have evolved on this planet with these plants for thousands of years, and our bodies recognize cannabinoids and terpenes as natural compounds. Hundreds of biologically active components exist in a plant extract—they are naturally balanced and do not act alone. In fact, the symphony of compounds packaged by nature work better together—greater than the sum of their individual parts. This is known as synergy and is commonly referred to as the “Entourage Effect.” Pharmaceuticals are synthetic isolates (mostly single chemicals mimicking something natural). When something is packaged in an “unnatural form” the natural response of our immune system is to react to the foreign invader, to reject it or fight against it. This is why so many people experience side effects from synthetic pharmaceuticals and over-the-counter medications.



MYRCENE



BETA-CARYOPHYLLENE



LIMONENE



ALPHA-PINENE



TERPINEOLS



LINALOOL

BENEFITS

Sleep Aid	Homeostasis	Uplifting	Relaxing	Anti-microbial	Calming
Muscle-relaxer	Pain Relief	Energizing	Cellular-function	Cleansing	Soothing
Anti-inflammatory	Anti-oxidant	Better Focus	Better Memory	Protective	Stress Relief
Skin & Immune Health	Skin & GI Health	Sex Drive	Multi-system Support	Clear Skin	Anti-histamine

FOUND IN

HOPS	BLACK PEPPER	CITRUS	PINE NEEDLES	TEA TREE	LAVENDER
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WHAT IS THE DIFFERENCE BETWEEN CANNABIS AND HEMP AND HOW CAN THESE PLANTS HELP YOU?

It’s pretty simple: hemp is basically cannabis that contains less than 0.3% THC. There are medical benefits to ALL of the cannabinoids elucidated so far. We know that in their natural, full-spectrum form, the cannabinoids and the other terpenes work better together. The list of physical and emotional benefits of cannabis and hemp is growing almost daily. Dosage and mode of administration can be tailored to individual needs and preferences.

FIELD NOTES

LEARN ABOUT CANNABIS FROM OUR EXPERT STAFF

CANNABIS ADMINISTRATION

The best method for medical marijuana administration depends on individual preference and comfort level. Ask a professional about your options. There are five main modes of administration:

	INHALATION	SUBLINGUAL	ORAL	SUPPOSITORY	TOPICAL
ONSET	Immediate	15-60 minutes	30-120 minutes	About 30 minutes	15 minutes
PEAK EFFECT	30 minutes	1-2 hours	2-4 hours	Unknown	Variable
EFFECT DURATION	1-4 hours	1-4 hours	6-8 hours or more	Variable	2-4 hours
BIOAVAILABILITY	10-35%	50-80%	10-20%	70-80%	N/A
EASE OF DOSING	Easy	Easy	Difficult(start low & wait)	Easy	Easy
COMMON USES	Many medical & recreational uses	Mostly Medicinal	Many medical & recreational uses (digestive system disorders)	Sleep, cancer, hemmorrhoids, prostate issues, urinary tract, female issues, sciatica, inflammatory bowel disease	Musculoskeletal pain, skin conditions



WE AT APOTHECARE ARE HERE TO HELP AND GUIDE YOU TO ACHIEVE BETTER HEALTH!

GLOSSARY

OUR ENERGY WILL ALWAYS BE USED FOR CREATING AND SOURCING BETTER CANNABIS PRODUCTS FOR OUR CUSTOMERS AND FOR PROVIDING A COMFORTABLE ENVIRONMENT TO PURCHASE THOSE PRODUCTS.

LEARN MORE ABOUT THE TYPE OF PRODUCTS WE CARRY.



BALMS



CONCENTRATES



EDIBLES



FLOWER



PRE-ROLLS



SPRAYS



TINCTURES



TOOLS