



WHY CHINESE MEDICINE & CBD?

POLINA BOWLER

I WENT TO A CBD EXPO THIS WEEK, MY FIRST OF MANY I AM SURE ON MY JOURNEY TO GET ILLUMINATE OUT INTO THE WORLD. IT'S CALLED MARKETING. BY FAR MY LEAST FAVORITE AND LEAST EXPERIENCED FACULTY.

BUT WHAT I LIKED ABOUT IT IS HOW MANY TALKS AND LECTURES WERE GIVEN THROUGHOUT THE ENTIRE DAY. I LEARNED A LOT. I MET AN INTERESTING SCIENTIST, JOHN A. MACKAY, PH.D., WHO SHOWED ME THE CHEMICAL STRUCTURE OF A CANNABIS CELL. I ALSO GOT TO PLAY WITH THE MODEL CONSISTING OF STICKS AND BALLS REPRESENTING CHEMICAL BONDS, WHILE HE SHOWED ME HOW, BY REMOVING CERTAIN BONDS, THE PROPERTIES OF THE CELLS ARE COMPLETELY CHANGED. SCIENCE HAS ALWAYS FASCINATED ME - ESPECIALLY CHEMISTRY, AS IT IS THE SCIENCE OF LIFE. WE ARE ALL LITTLE ANIMATED CHEMICAL FACTORIES. REMINDS ME OF TIM BURTON'S BOOGIE WOOGIE MAN, FROM NIGHTMARE BEFORE CHRISTMAS, WHEN HE COMES APART AT THE SEAM.

HOWEVER, IT WAS A VERY BRIEF EXCHANGE WITH ONE OF THE VENDORS THAT PROMPTED ME TO WRITE THIS ARTICLE. A MAN SAID TO ME, "YOU'RE A STONER, RIGHT?!" AND WHEN I REPLIED, "I AM NOT," HE ROLLED HIS EYES DISAPPROVINGLY. I DON'T MEAN TO SAY I DON'T INHALE, BUT CERTAINLY FAR FROM BEING REFERRED TO AS A STONER, (THOUGH I DON'T DISAPPROVE OF ANYONE WHO IS!).

IT MADE ME THINK OF THE CONVERSATIONS I HAVE AND CONTINUE TO HAVE WITH MANY OF MY PATIENTS REGARDING CBD. IT IS HARD FOR MANY TO DIFFERENTIATE BETWEEN CBD, WHICH IS AN ACRONYM FOR CANNABIDIOL, AND CONVENTIONAL POT, HEMP, MARIJUANA - THE KIND THAT GETS YOU HIGH.

WHERE DOES CBD COME FROM?

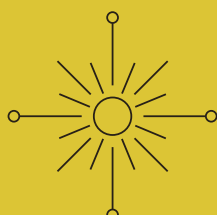
BOTH HEMP AND MARIJUANA COME FROM THE SAME PLANT SPECIES CALLED CANNABIS. CANNABIS CONTAINS AT LEAST 120 ACTIVE INGREDIENTS, OR CANNABINOIDS. THE TWO MOST ABUNDANT ONES ARE CANNABIDIOL (CBD) AND TETRAHYDROCANNABINOL (THC). CBD HAS NO PSYCHOACTIVE PROPERTIES, AT THE MOST IT WILL MAKE YOU TIRED OR SLEEPY. THC IS WHAT PRODUCES THE FEELING DESCRIBED AS A "HIGH" OR BEING "STONED".

CBD CAN BE EXTRACTED FROM HEMP AS WELL AS MARIJUANA. HEMP IS HIGHER IN CBD THAN MARIJUANA AND HAS A LOWER THC CONTENT, LESS THAN 0.3%. BENEFITS OF CBD DO NOT CHANGE DEPENDING ON FROM WHERE IT IS DERIVED; AND AS LONG AS THE THC CONTENT IS LESS THAN 0.3% IT WILL NOT HAVE ANY PSYCHOACTIVE EFFECT.

THE CBD IN MY PRODUCT, ILLUMINATE, IS PURE CBD, MEANING A DISTILLATION PROCESS REMOVES THC AND ALL OTHER UNWANTED COMPOUNDS, JUST LIKE ONE OF THOSE BONDS I PLAYED WITH AT THE EXPO WAS REMOVED TO MAKE IT PURE.

A BIT OF HISTORY:

IN THE 1990'S SCIENTISTS DISCOVERED A CHEMICAL COMPOUND IN OUR BODY AND CALLED IT ENDOCANNABINOIDS: CANNABIS-LIKE MOLECULES NATURALLY PRODUCED IN HUMANS AND ALL MAMMALS. THEY REALIZED THAT CANNABINOIDS, NATURALLY OCCURRING IN CANNABIS, PARTIALLY AFFECTED US BY MIMICKING OUR OWN ENDOCANNABINOIDS. CBD AS WELL AS THC INTERACTS WITH OUR ENDOCANNABINOID SYSTEM (ECS). WE ARE ALL FAMILIAR WITH THE NERVOUS SYSTEM, MUSCULAR SYSTEM, LYMPHATIC SYSTEM... WHICH ALL CARRY OUT SPECIFIC COMPLEX FUNCTIONS FOR OUR BODY. THE MAIN FUNCTION OF THE ENDOCANNABINOID SYSTEM, AS FAR AS IT IS UNDERSTOOD NOW, IS TO MAINTAIN BODY HOMEOSTASIS, IN OTHER WORDS: BALANCE. IT HARMONIZES OUR BIOLOGICAL RESPONSE TO CHANGES IN OUR ENVIRONMENT. IT IS BELIEVED TO HAVE EVOLVED 500 MILLION YEARS AGO AND IS PRESENT IN ALL VERTEBRATES - MAMMALS, BIRDS, FISH, ETC., WHICH WOULD EXPLAIN WHY OUR PETS CAN BENEFIT FROM CBD AS MUCH AS WE CAN.





HOW DOES THE ENDOCANNABINOID SYSTEM WORK?

THE ENDOCANNABINOID SYSTEM (ECS) PLAYS A ROLE IN REGULATING OUR MUSCLES, VASCULAR SYSTEM, SKIN, BONES, LIVER, GI, LUNGS AND MORE. ECS IS MADE UP PRIMARILY OF ENDOCANNABINOID RECEPTORS (“A MOLECULE INSIDE OR ON THE SURFACE OF A CELL THAT BINDS TO A SPECIFIC SUBSTANCE AND CAUSES A SPECIFIC EFFECT IN THE CELL”) AND ENZYMES. THE TWO KNOWN ENDOCANNABINOID RECEPTORS ARE CB1 AND CB2. THE DIFFERENCE BETWEEN THE TWO IS MAINLY WHERE THEY ARE FOUND IN THE BODY.

CB1 IS MAINLY FOUND IN THE BRAIN AND THE SPINAL CORD, THUS AFFECTING MANY FUNCTIONS OF OUR CENTRAL NERVOUS SYSTEM (CNS), INCLUDING MOOD, APPETITE AND PAIN. CB1 IS FOUND IN HIGH CONCENTRATIONS IN BRAIN REGIONS LIKE HIPPOCAMPUS, AMYGDALA AND CORTEX THAT ARE DIRECTLY INVOLVED WITH MOOD REGULATION, WHICH IS HOW THE ENDOCANNABINOID SYSTEM CAN AFFECT OUR EMOTIONAL STATE.

CB2 IS FOUND THROUGHOUT OUR BODY: IN OUR SKIN, BONES AND ORGANS, THUS AFFECTING OUR PERIPHERAL NERVOUS SYSTEM (PNS), WHICH ACTS AS A RELAY BETWEEN OUR CNS AND THE REST OF OUR BODY. THE HIGHEST CONCENTRATION OF CB2 IS FOUND IN OUR IMMUNE SYSTEM AND PLAYS AN IMPORTANT ROLE REGULATING THE INFLAMMATORY PROCESS, HELPING TO MAINTAIN HEALTHY INFLAMMATION LEVELS. CB2 IS FOUND IN HIGH CONCENTRATIONS IN THE SITE OF AN INJURY, LIKE A SPRAINED ANKLE, FOR EXAMPLE. THE BRAIN INITIATES AN IMMUNE RESPONSE: THE ANKLE SWELLS UP AND THE LIQUID IN THE SWOLLEN AREA CONTAINS THE IMMUNE CELLS, MANY CARRYING CB2 RECEPTORS ON THEIR SURFACE.

CB2 RECEPTORS WILL ATTRACT AND BOND WITH COMPOUNDS NEEDED FOR HEALING, BUT ONCE THE INJURY IS HEALED, CB2 WILL REJECT THOSE COMPOUNDS, WHICH WILL GIVE A MESSAGE TO THE BRAIN THAT THE JOB IS DONE, TURN OFF THE ALERT FOR THIS AREA. THAT IS IN VERY SIMPLE TERMS HOW CB2 REGULATE THE HEALING PROCESS AS WELL AS THE LEVEL OF INFLAMMATION. DEFICIENCY OF CB2 MAY CONTRIBUTE TO PROLONGED HEALING AND CHRONIC INFLAMMATION.

CB2 IS ALSO FOUND IN LARGE QUANTITIES IN OUR SKIN, WHICH IS WHY APPLYING A CBD CREAM TO THE INJURED AREA CAN HELP WITH PAIN IN THAT AREA.

IN SHORT, ENDOCANNABINOID RECEPTORS ACT AS MESSENGERS, DELIVERING INFORMATION BETWEEN OUR BRAIN AND THE REST OF THE BODY.

THE OTHER IMPORTANT MOLECULES IN THE ECS ARE ENZYMES. THEY DO THE CLEANUP, BREAKING DOWN THE CANNABINOIDS ONCE THEY SERVED THEIR PURPOSE.

SO, WHY CBD?

“ENDOCANNABINOIDS ARE ARGUABLY ONE OF THE MOST WIDESPREAD AND VERSATILE SIGNALING MOLECULES KNOWN TO MAN”(UCLA RESEARCH ARTICLE). CBD BINDS WITH BOTH ENDOCANNABINOID RECEPTORS, CB1 AND CB2, INCREASING THE ENDOCANNABINOID SYSTEM’S ABILITY TO BALANCE ALL THE PROCESSES IN OUR BODY.

CHINESE MEDICINE AND CBD

BACK TO MY ROOTS AS A PRACTITIONER OF CHINESE MEDICINE AND NOW ENTREPRENEUR OF CBD, I FIND AN ALMOST POETIC SYNERGY BETWEEN THE FUNCTION OF THE ENDOCANNABINOID SYSTEM AND THE UNDERLYING PRINCIPLE OF THE CHINESE MEDICAL SYSTEM: MAINTAINING THE BALANCE IN THE BODY. IN TERMS OF CHINESE MEDICAL VERNACULAR, IT IS THE BALANCE OF ENERGY, THE BALANCE OF YIN AND YANG. IN THE SCIENCE OF THE ENDOCANNABINOID SYSTEM, IT IS THE BALANCE BETWEEN THE CENTRAL NERVOUS SYSTEM AND THE PERIPHERAL NERVOUS SYSTEM.

THE COMBINATION OF CHINESE HERBAL FORMULAS WITH CBD IS A MATCH MADE IN HEAVEN!

