

## WHAT IS THE ENDOCANNABINOID SYSTEM?

THE ENDOCANNABINOID SYSTEM (ECS) IS A BIOLOGICAL SYSTEM IN THE BODY THAT HELPS REGULATE AND BALANCE KEY BODILY FUNCTIONS.

THE ENDOCANNABINOID SYSTEM IS AN ACTIVE AND COMPLEX CELL SIGNALLING NETWORK. IT INVOLVES A COMBINATION OF CANNABINOIDS, ENZYMES, AND CANNABINOID RECEPTORS.

IN THE EARLY 1990'S, A CHEMIST ISOLATED THE FIRST ENDOCANNABINOID IN THE HUMAN BRAIN. SINCE THAT TIME, RESEARCHERS HAVE BEEN LEARNING MORE ABOUT THIS SYSTEM AND THE ROLE IT PLAYS IN DAILY BODILY FUNCTIONS.

ENDOCANNABINOIDS ARE SIMILAR TO THOSE FOUND IN THE CANNABIS SATIVA (S.SATIVA) PLANT. HOWEVER THE HUMAN BODY NATURALLY PRODUCES ENDOCANNABINOIDS. THE TERM "ENDO" REFERS TO "WITHIN" THE BODY.

## WHAT ARE ENDOCANNABINOID RECEPTORS?

ENDOCANNABINOID RECEPTORS ARE ON THE SURFACE OF CELLS THROUGHOUT THE BODY. CANNABINOIDS ATTACH OR BIND TO THE RECEPTORS, WHICH SEND A MESSAGE TO THE ECS TO KICK START A RESPONSE.

CB1 IS MAINLY PRESENT IN THE NERVOUS CENTRAL SYSTEM, WHICH CONSISTS OF THE BRAIN AND SPINAL CORD.



CB2 IS MAINLY PRESENT IN THE PERIPHERAL NERVOUS SYSTEM (PNS) AND IMMUNE CELLS.

EXPERTS BELIEVE A THIRD CANNABINOID RECEPTOR MAY EXIST, BUT RESEARCH IS NOT CONCLUSIVE.

## NOURISH YOUR ECS!!

## WHAT IS THE FUNCTION OF THE ECS?

RESEARCH SUGGESTS THAT THE ECS PLAYS A KEY ROLE IN CONTRIBUTING TOWARDS HOMEOSTASIS.

HOMEOSTASIS REFERS TO THE MAINTENANCE OF STABILITY OR OPTIMAL CONDITIONS WITHIN THE BODY TO PROMOTE PROPER FUNCTIONING.

EXPERTS BELIEVE THAT IF THE BODY FALLS OUT OF THE NORMAL RANGE, THE ECS HELPS THE BODY TO RETURN TO THE OPTIMAL RANGE AND MAINTAIN HOMEOSTASIS.

RESEARCH SUGGESTS THE ECS MAY HELP REGULATE THE FUNCTION OF THE FOLLOWING: APPETITE AND DIGESTION, SLEEP, PAIN SENSATION, INFLAMMATION AND OTHER IMMUNE RESPONSES, MOOD, METABOLISM, MEMORY AND LEARNING, AND REPRODUCTIVE SYSTEM FUNCTION.

THE ECS REGULATES NOT ONLY THE CENTRAL AND PERIPHERAL MECHANISMS OF FOOD INTAKE, BUT ALSO LIPID SYNTHESIS AND TURNOVER IN THE LIVER AND ADIPOSE TISSUE AS WELL AS GLUCOSE METABOLISM IN MUSCLE CELLS.