AN INTRODUCTION TO THE ENDOCANNABINOID SYSTEM (ECS)

EDUCATIONAL SERIES:
MEDICAL MARIJUANA 101

Updated 2023

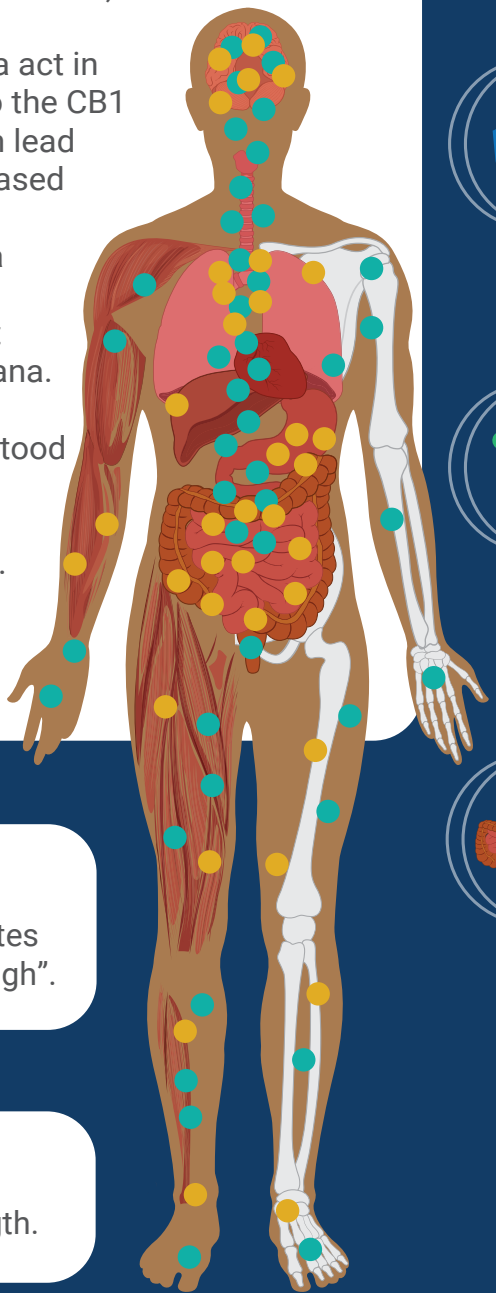
Your body naturally creates substances called endocannabinoids, and some of these are similar to the cannabinoids found in marijuana.

The body's ECS sends "signals" (endocannabinoids) to "receivers" (CB1 and CB2 receptors) to help balance your body's sleep cycle, appetite level, and more.

The cannabinoids in marijuana act in a similar way by connecting to the CB1 and CB2 "receivers" which can lead to different effects (e.g., increased appetite, changes in mood). But cannabinoids in marijuana are not identical to human cannabinoids and they are not the only component of marijuana.

It is not yet completely understood whether and how medical marijuana may help with a number of medical conditions.

- CB1 receptors
- CB2 receptors



CENTRAL NERVOUS SYSTEM

Supports the brain and central nervous system including increasing memory.

IMMUNE SYSTEM

Affects the immune system to reduce swelling.

HORMONES

Balances hormones that support metabolism, reproduction, and stress levels.

DIGESTING FOOD

Helps control irritation and swelling in your digestive system.

MUSCLES

Helps control blood sugar. Creates a feeling similar to a "runner's high".

BONES

Supports bone mass and strength.

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Wilson RI, Nicoll RA. Endocannabinoid signaling in the brain. *Science*. 2002;296(5568):678-82.

Zlebnik NE, Cheer JF. Beyond the CB1 Receptor: Is Cannabidiol the Answer for Disorders of Motivation? *Annu Rev Neurosci*. 2016;39:1-17.

Consortium for Medical Marijuana Clinical Outcomes Research

For more information, please visit the Consortium for Medical Marijuana Clinical Outcomes Research at mmjoutcomes.org.