

THE ENDOCANNABINOID SYSTEM

The Endocannabinoid system is what makes Cannabis work in the body, but its not just Cannabis...

- 1975** Misuse of drugs act implemented
- 1977** Misuse of drugs regulations implemented
- 1988** CB1 receptor discovered
- 1990** Distribution of CB1 mapped
- 1990** CB2 discovered
- 1992** Anandamide, the first endocannabinoid discovered
- 1995** 2-Arachidonoylglycerol (2-AG) another endocannabinoid discovered
- 1998** First endocannabinoid processing enzyme FAAH cloned
- 1999** Anandamide shown to activate Vanilloid receptors (TRPV1)
- GPR55 discovered, (potential CB3 receptor)

The Endocannabinoid system, is a system within the body which regulates many functions. There are natural compounds (endocannabinoids) that function in this system. Plant derived Cannabinoids (Phytocannabinoids) are structurally similar and interact with this system to cause its positive and negative effects. This system was only theorized when our laws were written, and since its discovery our laws have not progressed.

The Endocannabinoid system comprises of 2 Main receptors, CB1 and CB2, there are speculative candidates for further receptors, GPR18, GPR55 and GPR119 all being demonstrated to interact with cannabinoids and our understanding of these receptors is emerging. Additionally Cannabinoids can also interact with other systems and their receptors, such as TRPV1, 5HT1a, for further effects.

There are a range of Endocannabinoids naturally occurring within the human body responsible for a variety of functions, it is speculated that a group of patients may be naturally low in these compounds, leading to conditions such as Fibromyalgia, Irritable Bowel Syndrome and Chronic Migraines. Often these patients respond impressively well to supplementing there system with Cannabis Extracts.



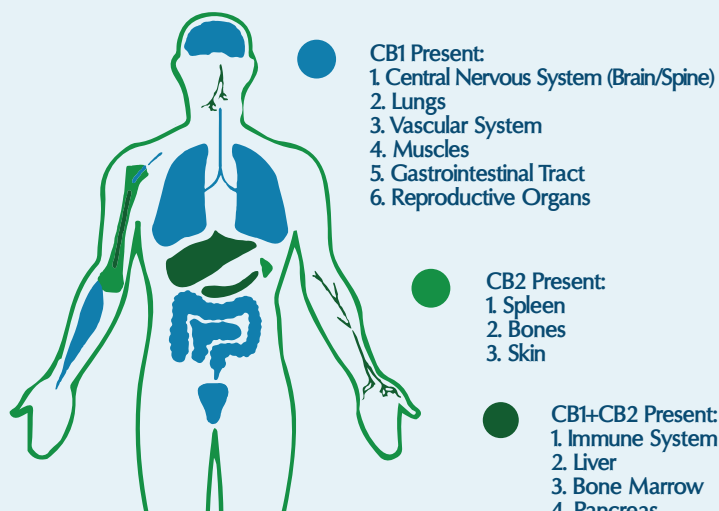
The CB2 receptor has been demonstrated to not be psychoactive, and some chemicals interact with it for anti inflammatory and analgesic effects. A well known one is Beta-Carophyllene which is found in essential oils of Copaiba, Hops, Lavendar, Rosemary, Cloves and Black Pepper.

The Endocannabinoid system has been observed to influence the following effects in the body:

Memory
Neurogenesis
Appetite
Metabolism
Stress response
Immune function

Reproduction
Autonomic nervous system
Analgesia
Thermoregulation
Sleep
Physical exercise.

Receptors are found on cell surfaces.



CB1 receptors are primarily found in the brain and central nervous system, and to a lesser extent in other tissues.

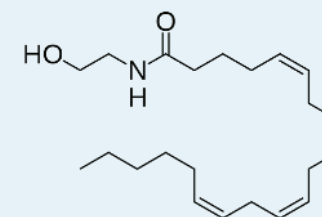
CBD does not directly "fit" CB1 or CB2 receptors but has powerful indirect effects still being studied.



Paracetamol has relatively recently been discovered to be a prodrug for an indirect Cannabimimetic. Paracetamol degrades to "AM404" which is an Anandamide reuptake inhibitor, which allows more Anandamide to accumulate in the brain, leading to its analgesic effects.

CB2 receptors are mostly in the perepheral organs especially cells associaated with the immune system.

GPR55 is widely expressed in the brain, and the jejunum and ileum, and can be found in the cells responsible for bone formation and repair



Anandamide, the primary Endocannabinoid, is also found in dark chocolate in trace amounts, and has a similar effect to THC, could this be why some people love dark chocolate?



[f](#) /MCANewZealand/

[t](#) @MCAwarenessNZ

[globe](#) mcawarenessnz.org/