

Human beings, like all other animals with a backbone, have an internal regulation system that helps the body stay sound. This endocannabinoid system, or ECS for short, keeps our biochemistry in balance and stimulates pleasure—in essence, it contributes to leading a healthy, happy life (Moskowitz, 2017: 24).

Thanks to continued research, we now know that the ECS comprises three cornerstones:

- the cannabinoid receptors, called CB1 and CB2
- the molecules that activate these receptors and lend their name to the system, endocannabinoids
- metabolic enzymes, which produce and break down the endocannabinoids (Nagarkatti, Pandey, Rieder, Hegde & Nagarkatti, 2009)

The ECS and cannabis are often mentioned in the same breath because their study is historically tied. In fact, researching cannabis led to the detection of the ECS. Only three decades ago, when exploring the effects of cannabis's psychoactive component, a team of scientists find that vertebrates have specific receptors responding to the plant's chemical compounds (De Petrocellis, Cascio & Di Marzo, 2004). The most commonly cited compounds are the psychoactive component (-)- Δ^9 -tetrahydrocannabinol (THC) and the non-psychoactive component cannabidiol (CBD).

Cannabidiol (CBD) acts on the CB1 and CB2 receptors of the body to produce a variety of outcomes, including promoting homeostasis while reducing the sensation of pain and decreasing inflammation. CBD also modifies the activity of the ECS's enzymes and transport proteins and modifies the concentration of anandamide—the "default" endocannabinoid. An understanding of the ECS works like a master key, providing the power to unlock cannabis's therapeutic promise (Di Marzo, Bifulco & De Petrocellis, 2004; Ligresti, Petrosino & Di Marzo, 2009) for a broad spectrum of health issues.

These include:

- Alzheimer's disease
- Anxiety
- Depression
- Gastrointestinal disorders
- Nausea
- Neurodegenerative disorders
- Neurological disorders
- Pain & inflammation
- Post-traumatic stress disorders
- Ribavirin-induced anorexia
- Weight loss

The list goes on. Further research and knowledge are still needed. In the meantime, [Tikva](#) is backed by science that is blazing a trail to uncover more about the ECS, its impact on various bodily functions, and its receptiveness to cannabis.