

&gt;&gt;&gt; NEWSLETTER &lt;&lt;&lt;

# CAN MED

Cannabinoid medicine update



## IT'S NOT JUST CBD

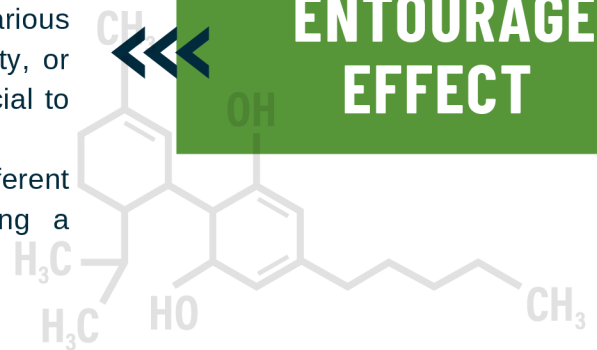
### CANNABIS 101 >>>

Cannabis is often synonymous with CBD (cannabidiol), but this plant is far more complex than a single compound. With over **100** different cannabinoids, a wide array of terpenes, and a variety of flavonoids, the cannabis plant offers a range of therapeutic benefits. Understanding these components and how they work together can help patients and healthcare providers make more informed decisions about using cannabis for health and wellness.

The therapeutic effects of cannabis are not driven by one compound alone. Instead, they stem from the interaction between cannabinoids, terpenes, and flavonoids—a synergy known as the **entourage** effect. This means that the plant's components work together to enhance its overall impact, leading to more effective treatment options for various conditions. Whether you're using cannabis for pain relief, anxiety, or other conditions, appreciating the complexity of this plant is crucial to understanding why it's effective.

Terpenes essentially steer the cannabinoids to work in different ways. "Sativa" vs "Indica" vs "hybrid" is essentially describing a collective effect of the terpenes in the plant!

### <<< ENTOURAGE EFFECT



# PLANT MEDICINE

## NEW THERAPIES, NEW APPROACHES

Dr. Jen Anderson MD, CCFP

### >>> CANNABINOIDS

- **CBD (Cannabidiol):** Known for its calming effects and anti-inflammatory properties, CBD is non-psychoactive and can help with anxiety, pain, and epilepsy.
- **THC (Delta-9-Tetrahydrocannabinol):** The primary psychoactive component, THC provides pain relief, stimulates appetite, and can be beneficial for conditions like nausea and insomnia.
- **CBG (Cannabigerol):** Often referred to as the "mother of cannabinoids," CBG is the precursor to CBD and THC. It has potential in treating glaucoma, inflammation, and certain bacterial infections.
- **CBC (Cannabichromene):** A lesser-known cannabinoid, CBC shows promise in reducing pain and inflammation and may help promote neurogenesis.
- **CBN (Cannabinol):** Formed when THC ages, CBN is mildly psychoactive and is often associated with sedative effects.

MANY PLANTS HAVE  
TERPENES AND CANNABINOIDS!

### TERPENES

Terpenes give cannabis its unique scent and flavor profile, but they do more than just provide aroma:

- **Myrcene:** Found in mangoes, this terpene has sedative and muscle relaxant properties. It can enhance THC's psychoactive effects, potentially making it a key player in pain relief.
- **Limonene:** Present in citrus fruits, limonene has mood-enhancing and anti-anxiety properties. It may also help boost the absorption of other cannabinoids.
- **Pinene:** As the name suggests, this terpene is abundant in pine trees. It has anti-inflammatory effects and may improve focus.
- **Linalool:** Commonly found in lavender, linalool is known for its calming and anti-anxiety properties. It may also have anti-epileptic effects.

There are many more! (See image on page 3)



### PUTTING IT TOGETHER...

"Entourage effect" refers to the synergy between cannabinoids, terpenes, and flavonoids. For example, CBD can reduce the anxiety-inducing effects of THC, while myrcene can enhance THC's sedative qualities. This combination can make cannabis products more effective than isolated compounds, as the different components amplify each other's effects.

This is a new way of looking at medicine. When you combine these in different ways with different routes you can get different effects and personalize the therapy! This also will make it very hard to research in the standard RCT format given that personalization is essential.



## Endocannabinoid System History

Maccarrone M. Tribute to Professor Raphael Mechoulam, The Founder of Cannabinoid and Endocannabinoid Research. *Molecules*. 2022 Jan 5;27(1):323. doi: 10.3390/molecules27010323. PMID: 35011553; PMCID: PMC8746417.

## Articles on Cannabinoids and Terpenes

Cannabis sativa terpenes are cannabimimetic and selectively enhance cannabinoid activity. Accessed October 29, 2024. [https://www.readcube.com/articles/10.1038%2Fs41598-021-87740-8?status\\_token=eyJhbGciOiJFUzI1NiIsInR5cCI6IkpXVCJ9.eyJlbndRpdGxlZCI6ImFjY2Vzc1R5cGU0IjVvcGVuliwiZG9pljoiMTAuMTAzOC9zNDE1OTgtMDIxLTg3NzQwLTgiLCJpYXQiOiE3MzAyMDIwNTIsImV4cCI6MTczMDIwOTI1Mn0.vGY5uEBupr-kOXB0Z9VrCmOO8wxZNCBzk8Qh\\_VeM-ILCjeMa6aEtL-YkLTHWaB872amjFcYedotE4j3PT\\_xxPA&publisher=nature](https://www.readcube.com/articles/10.1038%2Fs41598-021-87740-8?status_token=eyJhbGciOiJFUzI1NiIsInR5cCI6IkpXVCJ9.eyJlbndRpdGxlZCI6ImFjY2Vzc1R5cGU0IjVvcGVuliwiZG9pljoiMTAuMTAzOC9zNDE1OTgtMDIxLTg3NzQwLTgiLCJpYXQiOiE3MzAyMDIwNTIsImV4cCI6MTczMDIwOTI1Mn0.vGY5uEBupr-kOXB0Z9VrCmOO8wxZNCBzk8Qh_VeM-ILCjeMa6aEtL-YkLTHWaB872amjFcYedotE4j3PT_xxPA&publisher=nature)

## Additional Reading on Topic

<https://leafwell.com/blog/difference-between-terpenes-and-cannabinoids>

<https://www.mybpg.com/blog/cannabis-terpenes/>

## Health Canada Medical Document:

[https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/dhp-mps/alt\\_formats/pdf/marihuana/info/med-eng.pdf](https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/dhp-mps/alt_formats/pdf/marihuana/info/med-eng.pdf)

## List of Licensed Producers by Lift & Co:

[https://lift.co/producers?per\\_page=12&sort=-reviewCount&page=1](https://lift.co/producers?per_page=12&sort=-reviewCount&page=1)

\*Unless otherwise noted, all content my own. (Dr. Jen Anderson, MD, CCFP)

# TERPENES IN CANNABIS

THERE ARE MORE THAN 100 TERPENES IN JUST ONE CANNABIS FLOWER. HERE ARE SOME OF THE MOST WELL KNOWN TERPENES RIGHT NOW, MOST OF WHICH YOU'LL FIND IN LEGAL CANNABIS PRODUCTS IN YOUR AREA.

 <p><b>Bisabolol</b> floral <b>Properties</b> anti-inflammatory anti-irritant anti-microbial <b>Common Uses</b> cancer, skin lesion</p>	 <p><b>Borneol</b> mint <b>Properties</b> anti-inflammatory anticoagptive <b>Common Uses</b> eyesight, pain relief</p>	 <p><b>Camphene</b> fir needles, musky earth <b>Properties</b> anti-oxidant skin lesion <b>Common Uses</b> cardiovascular diseases</p>	 <p><b>Caryophyllene</b> spicy <b>Properties</b> anti-bacterial anti-inflammatory anti-fungal <b>Common Uses</b> insomnia, muscle spasms pain relief</p>	 <p><b>Delta 3 Carene</b> pine, rosemary <b>Properties</b> anti-inflammatory bone stimulant <b>Common Uses</b> memory</p>	 <p><b>Eucalyptol</b> mint <b>Properties</b> anti-bacterial anti-fungal <b>Common Uses</b> alzheimer's pain Relief</p>	 <p><b>Geraniol</b> peach, rose grass <b>Properties</b> anti-cancer anti-oxidant neuroprotectant <b>Common Uses</b> cancer, pain relief</p>	 <p><b>Humulene</b> earthy <b>Properties</b> anti-bacterial anti-inflammatory anti-tumor effects <b>Common Uses</b> cancer, infections appetite suppression</p>
 <p><b>Limonene</b> bitter citrus <b>Properties</b> anti-anxiety anti-cancer digestion, gallstones <b>Common Uses</b> liver detoxification weight loss, sleep aid</p>	 <p><b>Linalool</b> floral <b>Properties</b> anti-anxiety anti-epileptic anti-psychotic pain killing <b>Common Uses</b> depression, convulsions insomnia, pain relief</p>	 <p><b>Myrcene</b> citrus, cloves <b>Properties</b> relaxing sedating <b>Common Uses</b> inflammation, insomnia spasms, pain</p>	 <p><b>Pinene</b> pine <b>Properties</b> anti-depressant anti-inflammatory anti-microbial <b>Common Uses</b> asthma, bronchitis cancer, depression memory, mental alertness</p>	 <p><b>Phytol</b> balmonic, floral <b>Properties</b> anti-insomnia immunosuppressant <b>Common Uses</b> reduce itching sleep aid wound healing</p>	 <p><b>Terpinolene</b> smoky, woody <b>Properties</b> anti-bacterial anti-fungal anti-oxidant, antiseptic <b>Common Uses</b> heart disease sleep aid</p>	 <p><b>Trans-nerolidol</b> citrus, rose <b>Properties</b> anti-cancer anti-microbial anti-oxidant, anti-parasitic <b>Common Uses</b> relaxing skin lesion</p>	 <p><b>Valencene</b> sweet citrus <b>Properties</b> anti-inflammatory anti-melanogenesis antiallergic <b>Common Uses</b> memory skin lesion</p>