



Image courtesy of Brad Baird

Terpenes, CBD, and “The Entourage Effect”

Most all cannabidiol studies done on animals use a single synthetic molecule CBD molecule which is produced by biochemical labs. These studies are lacking in accuracy because of the absence of other compounds found in plants containing CBD. A better way of performing these studies is with the whole plant extraction which will include CBD, THC, and over 400 other compounds found in the cannabis plant. These compounds interact together and form what we now refer to as “**The Entourage Effect**”. When heated using **low temp vape pens**, this phenomenon amplifies the therapeutic benefits of the cannabis plant, making the medicinal value much higher than if these compounds were used by themselves.

One of the things that are important to note during studies of the cannabis plant is this entourage effect, where 100 ml of a synthetic CBD is not the same as 100ml of a CBD-enhanced whole cannabis plant extract. The scientific community calls cannabis polypharmaceutical in that a synergy happens between the plant's multiple components.

How Do Terpenes Add to the Medicinal Value of Cannabis?

In the case of terpenes, which are aromatic molecules that evaporate at **low temperatures** and produce aromas that we are all common with. Many scientists and researchers have noted the importance of these terpenes, as they are the basis for the holistic healing modality of aromatherapy. It is these terpenes that give cannabis its distinct flavours and aromas as well they play a part in the plants overall psychoactive effect. When **discreetly vaporised** at **low temperatures**, marijuana users can benefit from the entire “**entourage effect**”.

There are more than 200 terpenes in the cannabis plant, but only a few are in quantity enough to be considered aromatic. Some of these are diterpenes and sesquiterpenes, which are comprised of 5-carbon molecule isoprene which is the basis for all terpenoid compounds. These pungent terpenes give cannabis an evolutionary advantage by repelling insects and animals that might otherwise eat the plant.

And so it turns out, that these terpenes and the “**entourage effect**” are very beneficial to humans as well. A study in the British Journal of Pharmacology discussed the therapeutic attributes of terpenoids, which are typically lacking in synthetic compounds used in testing.

How Are Terpenes Beneficial?

One example is beta-caryophyllene, which is a component found in many essential oils from black pepper and oregano, as well as many leafy vegetables and of course, cannabis. It is a gastroprotective compound that is fantastic at treating ulcers and also helps manage other inflammatory conditions and auto-immune disorders. Beta-caryophyllene is one of the reasons leafy green vegetables are such a healthy part of the human diet.

Terpenoids and cannabinoids also increase a persons blood flow. They enhance cortical activity and can be useful to at killing respiratory pathogens.

Cannabis’s particular bouquet of terps (terpenes) also plays another important role in the world of the cannabis plant. In combination with CBD, they can increase the benefits of marijuana while lowering the levels of anxiety users sometimes experience.

What Are the Benefits of Low Temp Vaping?

Terpene profiles are different in every strain. Patients should take care to use a **vape pen**, at times called a **dab pen**, to heat the terpenes only at **low temperatures** to obtain the full medicinal benefits. If a patient finds that one particular terpene profile is not agreeable, then they can talk to their local budtender who can recommend a different, more suitable profile. In some cases, it is simple trial and error, but with more and more studies showing the benefits of the “the entourage effect” taking place, we should soon have access to terpene profiles that are dialled in for the patient's particular condition. Patient must take care to use only **low temp vape pens** to achieve maximum benefits.

Author: Brad Baird