

Terpenes

Note - This is part of a handout from the Certified Cannabis Educator program at the Cannabis Coaching

Institute. I

Define terpenes: These are the essential oils found naturally in all plants. They give cannabis its scent and flavor. Terpenes are extremely volatile and fragile and begin evaporating at around 70 degrees Fahrenheit or 21 degrees Celsius. If you can smell "cannabis," it's really the terps you're smelling! On the plant, their job is to attract pollinators, as well as act as a defense mechanism against pests, bacteria, foragers, etc. Growing conditions can affect the percentage of terpenes a plant will produce. They are the instruments in the orchestra when it comes to your experience with cannabis, while THC and CBD are the conductors.



Terpene benefits:

Most terpenes are anti-inflammatory, antibacterial, antifungal, and act as antioxidants, and they all have other therapeutic benefits as well.



How terpenes work:

Terpenes bind to olfactory receptors in our noses. They interact with the endocannabinoid system and work by binding with other receptors and ion channels throughout the body. They can alter how permeable the blood-brain barrier and skin barriers are, which can increase the bioavailability of cannabinoids.

Are terpenes safe?

We have lots of studies that say that terpenes can be safe and helpful. And, if you're using the plant as nature gave it to you, you're probably fine. Where we can get into trouble is with manufactured products and new ingestion methods (vape pens, dabs, etc.)

Terpene Testing is Essential(ish):

Without a valid terpene test, it's hard to predict precisely how a certain type of cannabis may make you feel, so always ask for lab testing. However, you can train your nose to detect different scents, similar to that of a wine sommelier.

Different types of terps!

There are many classifications of terpenes, but the ones we hear about most are:

- Monoterpenes are highly volatile, and they dissipate more easily after harvest
- Sesquiterpenes and heavier and less volatile

Take advantage of terpenes

If you're looking to experience the full benefits of terpenes, use a dry herb vaporizer



Top 5 Terpene Reference Chart

Each strain has 1-3 dominant terpenes.

At concentrations of 0.05% or more, you may start to notice an effect. At concentrations of 0.5% or higher, most people report feeling the effect(s) of the terpene.

Suggested Dry-Herb Vaping Temperatures

310-330 F/155-165 C degrees - a functional, productive buzz 330-370 F/165-188 C degrees - more intense high, elevate your mood, get giggly 370-430 F/188-221 C degrees - intense euphoria, sleep, relaxation - smoke gets heavier and harsher

Cannabinoid Vaporizing Points

THC vaporizes at 315 degrees F (157 C)

CBD vaporizes between 320-356 degrees F (160-180 C)

Monoterpenes

	Monoterpenes: monoterpenes are more fragile and therefore less likely to show up in cannabis products				
Terpene	Myrcene	Limonene	Pinene	Terpinolene	Linalool
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Smells Like:	Cloves, musky, skunky	Citrus, spicy	Pine, woody	Pine, floral, "fresh"	Lavender, citrus
Also in:	Mango, lemongrass, hops and bay leaves	Citrus fruit, rosemary, peppermint	Pine trees, conifers, basil, dill	Cumin, tea tree	Lavender, birch, cinnamon
May help with:	Inflammation, pain and sedation in concentrations over 0.5%	Depression, immune system, anxiety, inflammation, obesity	Bronchodilation, focus, alertness, energy, helps with memory loss from THC	Anxiety, sedation, anticancer	Sedation, stress, anxiety, pain, immune system
Boils at _ degrees F/C:	332 F 167 C	350 F 177 C	312 F 156 C	367 F 186 C	388 F 198 C
Strains to try:	Grape Ape, Granddaddy Purple (or any of the 'purple' varieties), Blue Dream	"OG" strains Sour Diesel, anything 'lemon'	Jack Herer Blue Dream "Kush" strains	Dutch Treat, Jack Herer	Bubba Kush "Purple" strains Headband

Sesquiterpenes

	Sesquiterpenes: heavier, less volatile, and have stronger odors, more likely to survive harvest, storage, and processing				
Terpene	Beta-caryophyllene	Ocimene	Humulene		
Smells Like:	peppery, spicy	Cloves, citrus, sweet	Earthy, "herbaceous"		
Also in:	Pepper, cloves, and cinnamon	Basil, hops, lavender	Cloves, basil, hops		
May help with:	Inflammation, gastrointestinal relief, pain, protective for organs	Anti-inflammatory, anti-viral, decongestant	Pain, inflammation, appetite control		
Boils at _ degrees F/C:	246 F 119 C	150 F 66 C	222 F 106 C		
Strains to try:	Any of the Cookies (Girl Scout Cookies), Gorilla Glue #4, "Kush" strains	Dutch Treat, Green Crack, Clementine	Sherbert, Death Star, Girl Scout Cookies		