# **DISCOVER WCANNABIS**

## SATIVA. INDICA AND HYBRID

What are they, and how do they affect me?



#### SATIVA

Associated with cerebral and uplifting effects.

#### INDICA

Associated with mind and body relaxation.

#### HYBRID

A crossbreed between a sativa and indica plant,thought to combine and balance their effects.

## TODAY when you walk into a

dispensary, cannabis is grouped into three classifications: sativas, indicas, and hybrids. Although these are a good starting point they should not be solely relied upon in determining a strain's effects. This is important for you to know, as not all sativas or indicas are inherently uplifting or sedating. Their effects largely depend on cannabinoids, terpenes and your unique physiology.

Many dispensaries provide lab test results detailing each strain's cannabinoid and terpene profiles. These tests are an essential tool to discover how a particular strain will distinctly affect you.

## WHERE THESE CATEGORIES ORIGINATED

Cannabis is believed to have originated in Central Asia and the northwest Himalayas. Through human migration over time, cannabis was introduced to new regional climates and selectively bred, resulting in different cannabis categories with similarities in growth cycles, medicinal effects, and uses.





## TERMS & CONCEPTS

STRAIN/CULTIVAR	The varieties of cannabis, known as "strains" (i.e. Blue Dream Sour Diesel) are created from the crossing of different cannabis parent strains. There are thousands of cannabis strains, each with a unique profile and attributed qualites.
<ul><li>CANNABINOIDS</li></ul>	Cannabinoids are produced naturally in both the human body and in cannabis plants. Cannabis plants contain over 100 cannabinoids including THC (tetrahydrocannabinoi) and CBD (cannabidioi) which each produce a different effect and overal experience.
• TERPENES	Terpenes make up the essential oils of many medicinal plants flowers and fruit, and play a significant role in a cannabis strain's smell, flavor and overall effect.
ENTOURAGE EFFECT	The entourage effect occurs when multiple parts of the cannabis plant, including cannabinoids and terpenes, work synergistically. In turn, producing a combined effect greater than the sum of their individual effects.
• DOSE	The dose of cannabis is the amount and frequency that cannabis is consumed for a consistent predictable and enjoyable experience. It's best to practice by starting small, and keep track of the quantity, potency, your personal tolerance, delivery method, plant profile and any other food/drug interactions.
• ECS	The endocannabinoid system (eCS), found in all vertebrates, has receptor sites throughout the entire body that accept cannabinoids produced by the cannabis plant.
TRUE FULL SPECTRUM	True Full Spectrum refers to a cannabis product containing an array of cannabinoids and terpenes that aid in the entourage effect. Opposed to full spectrum that can be an infusion of cannabinoids and terpenes post-extraction, true full-spectrum maintains the entirety of the cannabis profile from beginning to end without any re-infusing or blending.
• EXTRACTION METHOD	With the exception of flower, all cannabis products are made from a cannabis concentrate. Each extraction method results in a different product, including differences in how much of the original plant profile is retained.

# DISCOVER **CANNABIS**

## **DELIVERY METHODS**

#### How should I consume cannabis?

Cannabis can be applied or ingested in a number of ways. It is important to understand the different delivery methods, as they affect the duration, strength, and quality of the experience.

## INHALATION

#### Flowers / Concentrates (Wax & Vape)

This method allows cannabinoids to enter the bloodstream through the lungs, resulting in a more rapid onset than other delivery methods.

## INGESTION

#### **Edibles / Tinctures**

Ingestion enables the absorption of all the cannabinoids present in a dose. In contrast, inhalation by heat can burn off some of these beneficial compounds. Ingesting cannabis can result in a longer onset time compared to other methods depending on the speed of your metabolism and if the edible or tincture is absorbed through the mouth's mucous membrane.

## TOPICAL-INTERNAL

#### Suppositories

Taking a suppository allows for effective and quick absorption of cannabinoids into the bloodstream. This method bypasses the liver. creating lessened or minimal psychoactive effects

## TOPICAL-EXTERNAL

#### Topicals / Transdermals

Topicals penetrate the first layers of skin. while transdermal patches allow for absorption via the bloodstream. Topicals do not have any psychoactive effects, while transdermals have minimal psychoactive effects.

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### DISCOVER CANNABIS STYLE











#### FLOWER

(Pipe, Water Pipe, Vaporizer, Joint, Blunt)



Strength will depend on strain. To minimize smoke irritation, use vaporizers or water pipes.

#### TOPICALS







Used for a variety of skin conditions and localized pain without psychoactive effects. Can take 5-10 min, to feel effects.

#### **EDIBLES**







Slower onset (30 min. to 2+ hrs.) with more potent, long-lasting effects. Can be harder to regulate dose. Start with small doses to ensure an enjoyable experience. Edibles with a nano-emulsified base can have onset as soon as 15 min.

#### **TINCTURES**







Administered under the tongue for direct absorption into the bloodstream. Can take 15-30 min, to feel effects.

#### **CONCENTRATES - WAX**

(Method of Consumption: Dabbing)





Contains concentrated amounts of both terpenes and cannabinoids relative to flower. The extraction method determines a variety of factors including consistency and the amount of the plant profile retained in the end product.

#### TRANSDERMALS









Patch applied to the skin to penetrate into the bloodstream, unlike topicals. Usually slow delivery over a long period of time. Can last anywhere from 4-12 hrs. depending on strength.

#### **CONCENTRATES - VAPES**

(Not the same as using a flower vaporizer)







Low heating temperature, allowing you to benefit from the cannabinoids and terpenes without creating harmful combustion. Portable and discreet, with a minimal and quickly dissipating odor. Available in disposable and refillable cartridges. Try to avoid the additives polyethylene glycol and propylene glycol.

#### SUPPOSITORIES









Inserted internally (vaginally or rectally) for absorption into the bloodstream. Instant - 20 min. to feel effects. Ideal for receiving large, continual doses with minimized traditional psychoactive effects. Carrier oil can affect uptake.

\* This is not a conclusive list of all available cannabis consumption methods.



# **DISCOVER CANNABIS**

# CANNABINOIDS & YOUR ENDOCANNABINOID SYSTEM

### What are cannabinoids and why do they affect me?

Cannabinoids are a diverse class of chemical compounds that are produced both in the human body as endocannabinoids, as well as in cannabis plants as phytocannabinoids.

Cannabinoids produced either in your own body or supplements derived from the cannabis plant to support your Endocannabinoid System (ECS). The ECS, which exists in all vertebrate species, including most of our pets, regulates a wide range of functions and strives to maintain balance throughout the body.



**ENTOURAGE EFFECT:** The entourage effect describes how multiple parts of the cannabis plant, primarily cannabinoids and terpenes, work together synergistically. In turn, producing a combined effect greater than the sum of their individual effects.

In music, harmony can only be created when multiple chords or notes are played simultaneously. In turn, instruments can register even more powerfully when they are in harmony with other instruments. Think of one violin player in contrast to a full symphony orchestra.





## **CANNABINOIDS**

CANNABIS PLANTS contain over 120 known cannabinoids.. THC (tetra-hydro-cannabinol) is the most well known for its psychoactive experience, while CBD (cannabindiol) has become popular for its characteristics without the psychoactive effects of THC. Cannabinoids are believed to have the following beneficial properties



- · Relieves pain
- · Increases appetite
- · Relieves spasms
- · Provides antioxidants
- · Relaxes muscles
- · Relieves Nausea



- Anticonvulsant
- Anti-inflammatory
- · Inhibits tumor cell growth



- · Decreases appetite
- · Reduces blood sugar
- Anticonvulsant
- · Bone stimulant





- · Reduces anxiety
- · Sleep Aid
- · Muscle relaxant
- · Anti-depressant
- · Increases appetite
- · Pain relief
- · Reduces nausea
- · Inhibits tumor cell growth
- Anti-inflammatory





Anticancerous





Anticonvulsant



- · Anti-fungal
- · Anti-bacterial
- · Lowers blood pressure
- Muscle Relaxant
- · Bone stimulant
- Anti-inflammatory
- · Inhibits tumor cell growth





- · Inhibits tumor cell growth
- · Kills cancer cells





- · Pain reliever
- · Sleep aid
- Anticonvulsant



- Antibacterial
- Anti-inflammatory
- Bone stimulant
- · Inhibits tumor cell growth



# **DISCOVER WACANNABIS**

## **TERPENES**

### What are terpenes and how do they affect me?

Terpenes make up the essential oils of many medicinal plants, flowers, and fruits, and play a significant role in a cannabis strain's smell, flavor and overall effect. Terpenes are prevalent in everyday life. For example, you realize the benefits of the terpene profile Linalool when you put lavender essential oil in a diffuser.

The concentration of terpenes is naturally high in cannabis, affecting the uptake and absorption rate and contributing to the restfulness of some strains and the invigorating nature of others. Each cannabis strain has an individual blend of terpenes that offers a unique experience.



OCIMENE ile: Sweet, Herbal id In: Basil, Mint, F



PINENE
Flavor Profile: Piney & Sharp
Also Found In: Conifers, Sage, Dill
and Parsley



CARYOPHYLLENE Flavor Profile: Peppery, Woody & Spicy Also Found In: Black Pepper, Basil, Oregano & Cinnamon



TERPINOLENE
Flavor Profile: Piney, Sweet & Floral
Also Found In: Lilac, Sage, Nutmeg &
Rosemary



HUMULENE Flavor Profile: Earthy, Woody & Musky Also Found In: Cloves, Coriander & Hops



MYRCENE Flavor Profile: Earthy, Musky & Herbal Also Found In: Thyme, Hops, Mango & Lemongrass



LINALOOL Flavor Profile: Floral, Sharp & Sweet Also Found In: Lavender, Geranium, Laurel Birch & Rosewood



LIMONENE
Flavor Profile: Citrus and Sharp
Also Found In: Lemon, Juniper &
Peppermint





## WHY DO TERPENES MATTER & WHAT SHOULD I LOOK FOR?

Terpenes play a significant role in the entourage effect. Terpenes can be added or re-infused to a product post extraction, or depending on the extraction method, can be retained from the original plant profile. Terpenes added post extraction can include isolated terpenes from the cannabis plant or food grade terpenes, not originating from the cannabis plant.

■ LINALOOL Boiling Point: 388°	This terpene's hallmark is its floral scent, reminiscent of sharp and sweet wildflowers. It is also found in lavender, laurel birch and rosewood. It has calming and sedative properties and can help relieve anxiety.
TERPINEOL Boiling Point: 423°	Due to its pleasant aroma reminiscent of lilac blossoms, this terpene is often used in cosmetic products. It is often found in higher concentrations alongside pinene, which unfortunately may mask its scent.
• a-PINENE Boiling Point: 311°	The most common naturally occurring terpene, $\alpha$ -Pinene, it is a main contributor to cannabis' tell-tale piney aroma. It is found in conifer species and herbs such as sage. It is known to enhance memory and alertness.
<b>b-CARYOPHYLLENE</b> Boiling Point: 320°	Known to have an aroma that is peppery, woody and spicy, this is the only terpene proven to interact with the endocannabinoid system (CB2) in our bodies. Found in basil, oregano, pepper and cinnamon.
TERPINOLENE     Boiling Point: 220°	Having a piney aroma with notes of herbs & wildflowers, this terpene is a useful insect repellant. It is also found in rosemary, sage and cypress. It exhibits anti-cancer properties and tranquilizing effects.
● GERANIOL Boiling Point: 446°	Creating a delightfully sweet smell akin to roses, this terpene is present in geraniums, lemons and tobacco and is often used in perfumes and other cosmetics. It is also an effective mosquito repellent.
OCIMENE Boiling Point: 122°	Found in a wide variety of botanicals, it is known for its sweet and woody scent. Plants use ocimene to defend themselves against pests in nature. It is also found in mint, parsley, pepper, basil, orchids & kumquats.
LIMONENE Boiling Point: 349°	Common in Sativa varieties, this terpene is associated with an elevated mood. It is also found in citrus rinds, juniper and mint. Limonene has a unique ability to quicken the absorption of other terpenes in the body.
HUMULENE Boiling Point: 388°	Another strong contributor to the tell-tale 'earthy' aroma of cannabis, this terpene is also present in hops and coriander. Humulene can act as an appetite suppressant and offers potent anti-inflammatory abilities.
MYRCENE Boiling Point: 334°	Described as earthy and musky, this terpene is prevalent in most all strains of cannabis and is known to enhance THC uptake in the body. Myrcene is also found in mango, hops, thyme and citrus.



# DISCOVER CANNABIS

## **PROCESS MATTERS**

#### **Understanding Different Extraction Methods**

Cannabis today is new, medicinal, and filled with variety. Long gone are the days of back-street dime bags where cannabis was just "weed" or "marijuana". Today's cannabis is a re-discovered miracle we can use to explore the differences between natural medicine and pharmaceuticals. The variety of products available can be overwhelming, but understanding the different extraction methods is the first step in choosing between any cannabis-derived product.













### PROCESS MATTERS

#### Understanding different extraction methods.

## WHOLE SPECTRUM MATTERS BECAUSE:

This extraction method results in a product with the most complete cannabis profile; however, it also extracts substances which are undesirable for medicinal use. These can include the wax and lipids found in cannabis, but also any pesticides or anti-microbials that were used on the plant. Examples include rosin press, water hash, and ethanol-based RSO.\*

If we were to use the ocean as a metaphor for this method it would be like taking a piece of the ocean out, pollution & all.

## TRUE FULL SPECTRUM MATTERS BECAUSE:

True full spectrum extraction preserves all of the medicinal aspect of the cannabis plant, resulting in products that have the true cannabinoid and terpene profile. At Mountaintop Extracts we use light-hydrocarbon extraction to guarantee a clean medicine with true cannabis integrity from beginning to end.\*

Again, picture the ocean. True full spectrum is like protecting a coral reef. We are keeping the beauty of the ocean and maintaining its natural aspects while excluding the trash and pollution that could harm the reef and the life on it.

## FULL SPECTRUM MATTERS BECAUSE:

A complete profile of the medicinal parts of cannabis, terpenes and cannabinoids, is achieved by re-infusing all the elements together after extraction. This can be from elements derived from cannabis, or from non-cannabis sources. CO2 extraction and terpene infused products are considered full spectrum.

## BROAD SPECTRUM MATTERS BECAUSE:

Broad spectrum focuses on a single component of the cannabinoid profile, typically THC. These products are usually marketed as full spectrum if they have terpenes re-infused later. Examples are distillate and ethanol-based extractions.

The Full Spectrum & Broad Spectrum profile would be like looking at an aquarium. We take parts of the ocean and put them in something new. It doesn't have all the natural oceanic parts, just representations of them.

## ISOLATE MATTERS BECAUSE:

Isolates are either pure THC or CBD. They lack the entourage effect, which is why they are less desirable as a medicine. An example of this as a product would be labeled as just isolate.

This would be like taking just one piece of the ocean. It does not thrive because it is not with all other aspects of the ocean that make it truly wonderful.



<sup>\*</sup> Source material determines the quality of the product