

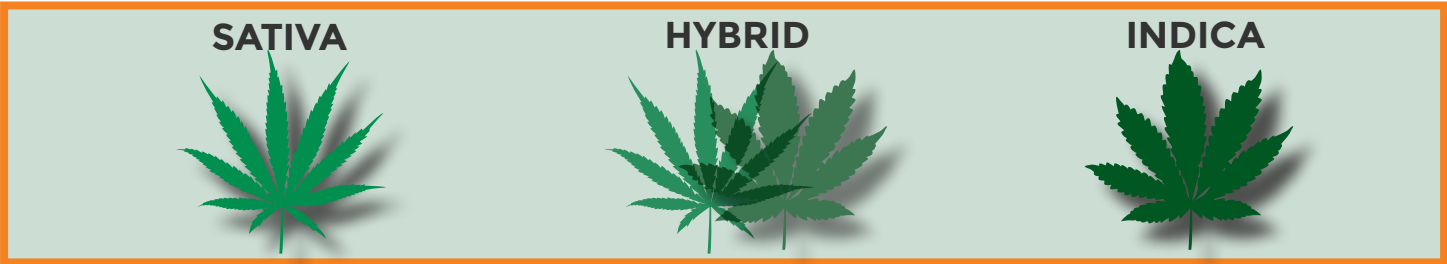


Cannabasics

Plant and Products



Cannabis refers to the plant *Cannabis sativa* (L) and has many forms from hash to hemp oils. There are several plant types that consumers may indicate they are accessing including sativa, indica, and hybrids, which are marketed as having different physiological effects.

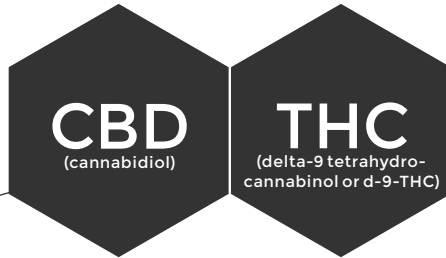


Cannabis has over 100 chemical compounds called cannabinoids

Cannabinoids interact with the human endocannabinoid system to produce a broad range of physiological effects. The two most commonly known active ingredients are:

CBD is most known for analgesic, anti-inflammatory and anti-anxiety properties without the intoxicating effects (the “high”)

NON-INTOXICATING



THC is most known for the “high” and for some therapeutic uses

INTOXICATING (GETS YOU “HIGH”)

FORMS OF CANNABIS

Some common forms of cannabis include the dried flower (bud) and concentrates. Concentrates have higher levels of cannabinoids relative to bud making it more potent.

Concentrates



Dried Flower (Bud)



HEAT

Cannabis product must be heated (decarboxylated) to activate its THC and other cannabinoids when consumed. Eating it raw will not produce any intoxicating effects. In the case of purchased edibles and some oils and tinctures the THC has already been activated and can be consumed as prepared.



Plant and Products

The cannabis plant is comprised of a stem, leaves and buds. Cannabis has many other names including marijuana, weed, dope and pot that most often refer specifically to the buds and products created from the bud. The term cannabis is more accurate as it refers to the whole plant. Key to understanding cannabis are the primary chemical compounds, plant types and products.

CHEMICAL COMPOUNDS

The cannabis plant contains chemicals called cannabinoids¹ that interact with the human endocannabinoid system to produce a myriad of physiological effects. The human endocannabinoid system is responsible for a variety of physiological as well as pathophysiological processes including neural development, immune function, inflammation, appetite, metabolism and energy homeostasis, cardiovascular function, digestion, bone development and bone density, synaptic plasticity and learning, pain, reproduction, psychiatric disorders, psychomotor behaviour, memory, wake/sleep cycles, and the regulation of stress and emotional state.² Although the cannabis plant contains over 100 different cannabinoids (and possibly more), the two most studied and discussed are THC (tetrahydrocannabinol) and CBD (cannabidiol).³ THC produces an intoxicating effect by binding with receptors in the brain and CBD may help to manage pain and mediate the effects of THC on the endocannabinoid system. Although the intoxicating effects of cannabis are often highlighted, THC is the cannabinoid largely responsible for

the “high” associated with cannabis.⁴

PLANT TYPES

Generally known by the name *Cannabis sativa* (L),* the most common types of cannabis, that consumers may indicate they are accessing, are sativa or indica. Most plants today are a hybrid of these two types and each type is marketed for different physiological effects. Cannabis derivatives include marijuana, hash and hemp products.

Hemp products, marijuana and hash are all derived from cannabis plants. Hemp is very low in THC (less than 0.3%), is not intoxicating, and its fiber is used in the production of cars, body care products, clothing, construction, food and plastic. Marijuana is the dried bud of the cannabis plant with amounts of THC that are intoxicating (5%-30%) and is consumed for various desired effects. Hash is the pure resin of the cannabis plant, without the plant material of the dried bud and as such, has higher concentrations of THC than the whole bud (20%-60%).

* The science community does not recognize sativas, indicas, and hybrids as separate species that are biochemically distinct. Instead, scientists recognize *Cannabis sativa* as the single species for all cannabis, and that only laboratory tests can determine the diverse biochemical profiles.



Plant and Products

Once a plant has matured, growers trim the flowers to produce what are referred to as dried flower (buds). The buds are coated with hair-like structures called trichomes which protrude from the plant material. There are many terpenes commonly found in cannabis. When terpenes are inhaled or ingested alongside cannabinoids, they may interact with the endocannabinoid system. In cannabis, this interaction has been called the entourage effect.

PRODUCTS

Although other parts of the cannabis plant can be consumed, the most common methods of consumption use the bud of the plant due to the concentration of cannabinoids. The two most common ways the plant is used are to create concentrates and to dry the bud. The dried buds are usually smoked, vaped or infused in fats to be consumed later as edibles. Examples of concentrates include hashish, shatter and tinctures. Concentrates are procured during an extraction process where the cannabis plants'

cannabinoids and terpenes are separated from the plant matter resulting in a concentrate with high levels of cannabinoids (more potent than the bud).

Cannabis concentrates are categorized as either solvent or non-solvent based.

- **Non-solvent concentrates** are extracted naturally (using water, scraping the resin off the bud, or drying the resin) to produce hash (cannabis resin) and kief (resin glands).
- **Solvent concentrates** are extracted commonly using carbon dioxide or alcohol. They produce many forms and textures known as shatter, wax, or oil.

Cannabis products must be heated (decarboxylated) to activate the THC and other cannabinoids when consumed. Eating it raw will not produce any intoxicating effects. Some oils and tinctures have already been activated, and do not need to be heated. In the case of purchased edibles, the THC has already been activated and can be consumed as prepared.

LINKS

For more information on the large variety of known types, please see [phylos galaxy](#).

For more information on the Endocannabinoid System, please see the webinar on YouTube by Dr. Matthew Hill, Understanding the Endocannabinoid System (2018): <https://youtu.be/NTLb2I8Yx-E>

REFERENCES

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- 3 Here to Help (2014). Learn about Cannabis. Retrieved in Oct 2018 from: <http://www.heretohelp.bc.ca/factsheet/learn-about-cannabis>
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