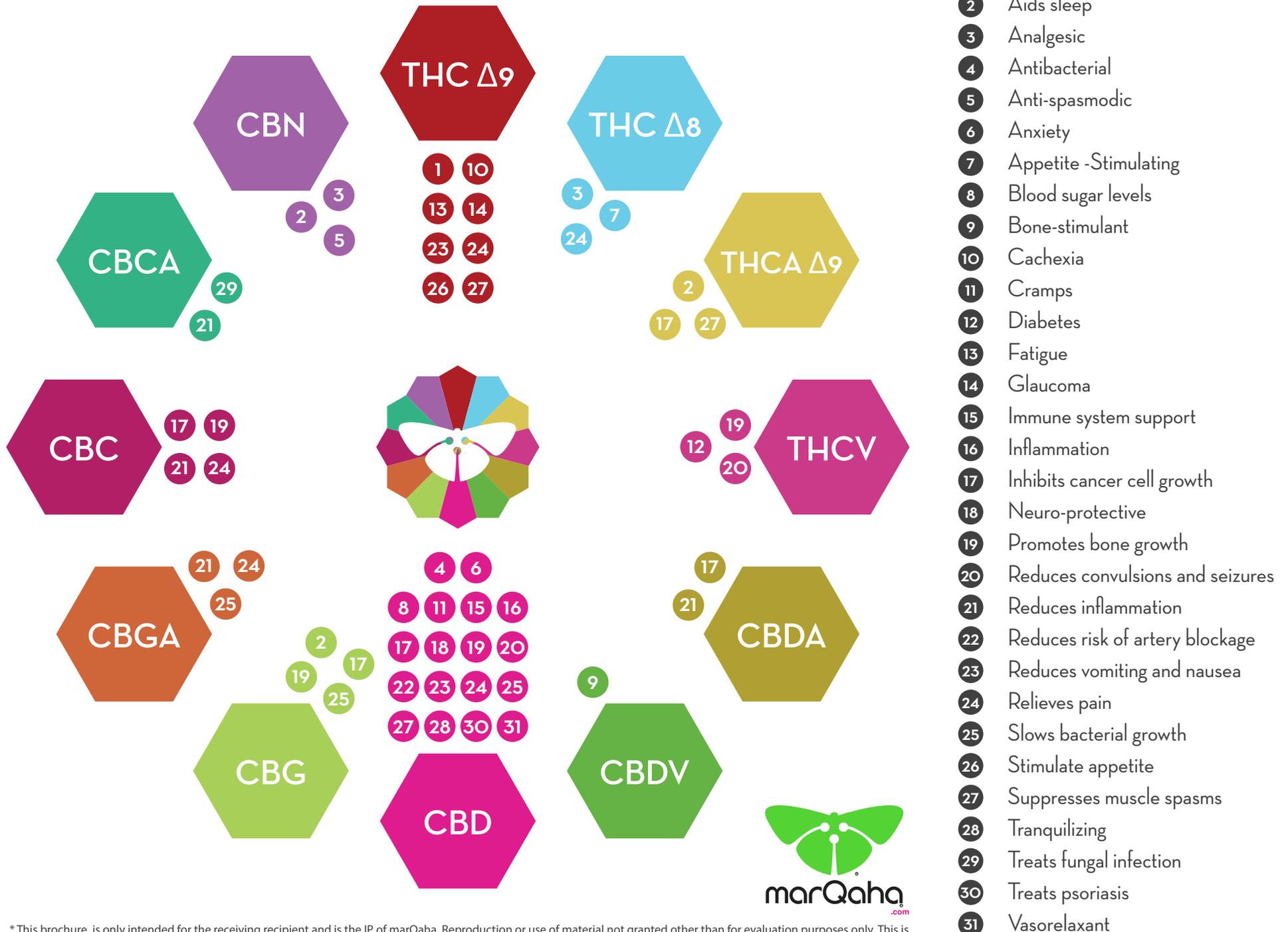


# CANNABINOID REFERENCE CHART



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# CANNABINOID REFERENCE CHART (page 2)



The Cannabis plant contains on average 70 types of cannabinoids. These are the chemical compounds created by the cannabis plant that are used to treat conditions from pain and epilepsy to cancer and nausea. They mirror the endocannabinoids that our bodies naturally produce illustrating our close relationship with the cannabis plant. There are three types of cannabinoids: phytocannabinoids (found in plants), synthetic cannabinoids (produced in the lab) and endocannabinoids (produced in the human body). Simply, they modulate communication between cells, and also help when a deficiency or problem with our endocannabinoid system exists. These cannabinoids bind to receptor sites throughout our brain (CB<sub>1</sub> Receptors) and body (CB<sub>2</sub> Receptors). Different cannabinoids have different effects depending on which receptors they bind to. For example, THC binds to receptors in the brain whereas CBD (cannabidiol) has a strong affinity for CB-2 receptors located throughout the body.



THC delta 9 or tetrahydrocannabinol is well known for its psychoactivity. Effects include: psychoactive, euphoria, sensory enhancement, anti-cancer, anti-nausea, pain relief, improves appetite, help for glaucoma, muscle relaxant, help for autoimmune disorders, and anti-inflammatory.



THC delta 8 is an analogue of THC Δ<sub>9</sub> with antiemetic, anxiolytic, appetite-stimulating, analgesic, and neuroprotective properties and binds to the cannabinoid G-protein coupled CB<sub>1</sub> receptor.



Tetrahydrocannabinolic Acid is the acidic precursor to THC, which actually exists in only minute quantities in the living plant. In the live plant THCA is the most abundant cannabinoid. After harvest THCA begins to naturally convert to THC.



THCV or tetrahydrocannabivarin is not psychoactive, but moderates some of the effects of THC. THCV is present in certain strains of cannabis, notably ones originating from Southeast Asia or South Africa. Effects include: decreases appetite, mitigates seizures, bone stimulant, and may help with diabetes.



Cannabichrome carboxylic acid (CBC-A), passes through the CBC synthase, or the enzymes that get the specific process underway. Over time, or quickly if exposed to heat, the CBC-A will lose a molecule of CO<sub>2</sub>; at this point it is considered CBC.



Cannabiol is primarily a decomposition product of THC from exposure to heat or light, and very little CBN is found in fresh plants. CBN has only mild psychoactivity, and effects include relief from pain, causes drowsiness, mitigates spasms, help for glaucoma, and is anti-inflammatory.



AEA, is one of the endocannabinoids found in the human body, and has a chemical structure unlike the phytocannabinoids found in cannabis. Anandamide regulates the functions of our central nervous system and our immune system. AEA regulates appetite, memory, sensations of pleasure and pain, our immune system, and sleep patterns. It also inhibits certain cancers, such as breast cancer in humans.



Cannabidiol is not psychoactive, yet it modifies the effects of THC. CBD has great medical potential, and effects include: anti-depressant, anti-cancer, anti-nausea, anxiolytic, pain relief, mitigates spasms, improves blood circulation, help for autoimmune disorders, and bone stimulant.



Cannabigerol is not psychoactive. It is commonly found in large quantities in fiber hemp. Certain medical strains have considerable CBG, which has promise for its anti-tumor qualities. Effects include: promising as an anti-cancer agent, lowers blood pressure, anti-inflammatory, and bone stimulant.



Through different forms of biosynthesis, Cannabigerolic acid (CBGa) becomes THCA, THC, CBDA, CBD, CBCA, CBC and CBG providing many of the medicinal elements of cannabis.



Cannabichromene is not psychoactive. Effects include: anti-cancer, antibacterial, antifungal, anti-inflammatory, analgesic, and bone stimulant. It bears structural similarity to the other natural cannabinoids, including THC, THCV. CBD and CBN Evidence has suggested that it may play a role in the anti-inflammatory and anti-viral effects of cannabis, and may contribute to the overall analgesic effects of the plant.



Cannabidiolic Acid is not psychoactive. Initial research suggest that CBDA offers anti-emetic and anti-proliferative effects, making it ideal for fighting cancer. It also offers anti-inflammatory and anti-bacterial properties.



Cannabidivarin is similar to cannabidiol (CBD) and has anticonvulsant effects. Plants with relatively high levels of CBDV have been reported in feral populations of *C. indica* (= *C. sativa* ssp. *indica* var. *kafiristanica*) from northwest India, and in hashish from Nepal.