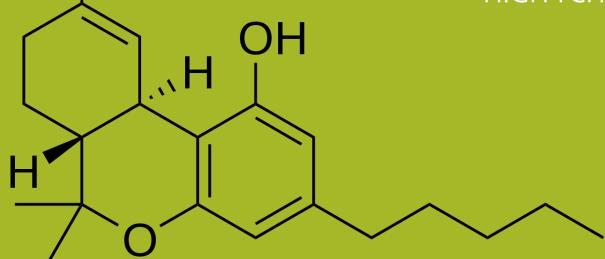
HOW HIGH IS TOO HIGH

HIGHTCH CANNABIS



OBJECTIVES

- Brief history of THC levels
- The difference between THC and CBC
- THC strains
- Concentrates
- High THC and your brain
- Current trends and culture
- State laws and you

• Back in the day natural grown marijuana was 1-3% THC

• Before 2000 the average THC levels in confiscated Marijuana was 5%

Now its at least 20%

• In retail establishments it can be over 27%

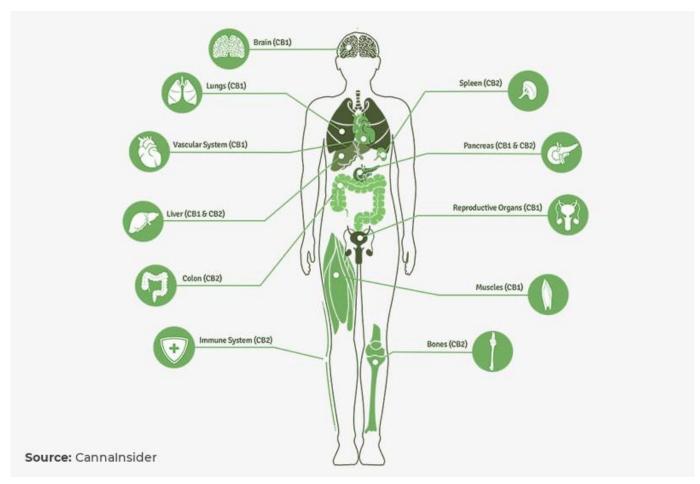
• In concentrates it can be over 90%

• The higher the THC the lower the CBD

THC and CBD are both cannabinoids derived from the cannabis plant, but they're different in many ways.

Cannabinoids and the Endocannabinoid System

- Before we dive in, it's important to understand what cannabinoids are and how they work with the body.
- There are currently <u>85 known</u> cannabinoids found in the <u>Cannabis plant</u>, the most prominent of which are Tetrahydrocannabinol (THC) and <u>Cannabidiol (CBD</u>).



A <u>cannabinoid</u> is a compound that interacts directly with our body's Endocannabinoid System (ECS), which in short, is a network of receptors that interact with cannabinoids to maintain vital functions throughout our body.

Scientists discovered the first cannabinoid receptor in 1988, and by 1993, they had identified a second receptor. In 1995, the two receptors were classified as the CB1 and CB2 receptors.

CB1 receptors are found abundantly in <u>regions of the brain</u> responsible for mental and physiological processes such as memory, high cognition, emotion, and motor coordination, while CB2 receptors are found throughout the central nervous and immune systems.

The interaction between the CB1 and CB2 receptors with cannabinoids like CBD and THC is the catalyst for <u>health</u> <u>benefits</u> such as pain relief, anxiety relief, appetite stimulation, mood management and more.



Now this is where the different positions of that tiny atom come into play.

Because THC and CBD have different molecular structures, they do not interact with the CB1 and CB2 receptors in the same manner. This greatly differentiates the effects each has on the body, which is likely the biggest concern when comparing CBD to THC.

What's the difference?

SATIVA

INDICA



TALLER & SLIMMER LEAVES ARE LONGER & THINNER





SHORTER & BUSHIER

LEAVES ARE

SHORTER & WIDER





HEAD HIGH

ALERTNESS





UPLIFTING & EUPHORIC

CREATIVITY





INCREASED ENERGY **BODY HIGH**





RELAXATION

APPETITE STIMULATOR





SLEEP AID

PAIN RELIEF



BEST FOR DAYTIME USE



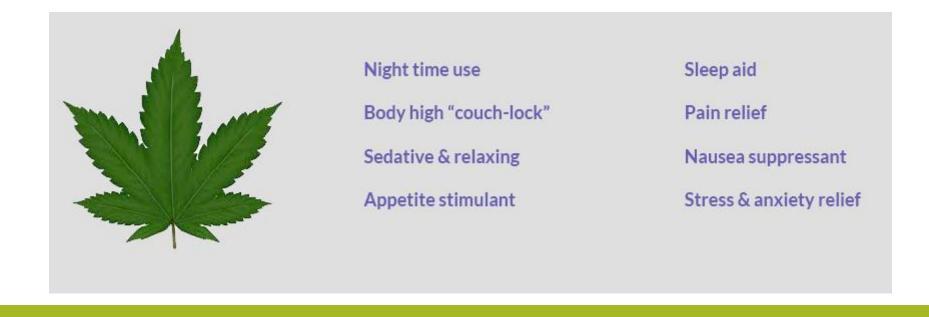


BEST FOR NIGHTTIME USE



INDICA

- Usually higher THC to CBD
- Indica plants are often characterized as having sedative effects
- More of an intense body high



SATIVA

- Usually lower THC
- Uplifting, cerebral, and energetic effects
- energizing, uplifting, and cerebral experience
- Brain high



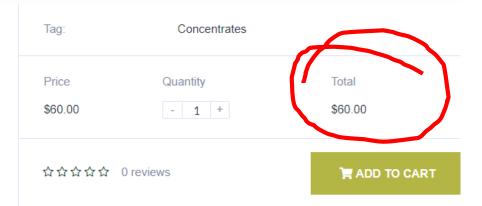
Hybrids

• These 'hybrid' strains of cannabis selectively combine elements of both the indica and sativa species through the breeding process. Hybrids are popular options, as they maintain the most favorable aspects associated with each of their parents and are a diverse class of cannabis cultivars.

• As a general rule, hybrids can be heavily sativa- or indica-dominant, or somewhere in the middle.

Gold Price Today Gold Spot Price Gold Price per Ounce Gold Price per Gram \$41.69 Gold Price per Kilo \$41,689.87

COOKIES AND CREAM ROSIN 1G, GABRIEL







Banana OG Hash Oil





Constellation Cannabis

Mendo Punch Hash

Oil

THC 59.32 CBb 0.12%

Hass

(1a)



Constellation Cannabis

Presidential OG Hash Oil

> THC 46.327 Oil \$75 (1g)

Marijuana Concentrates

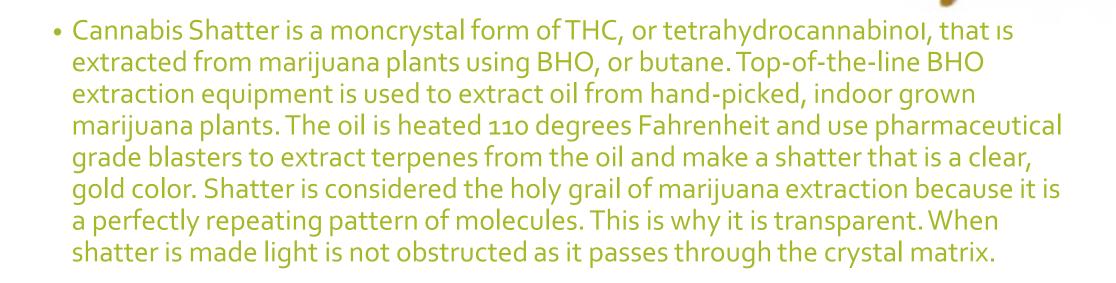
Cannabis Crumble / Crumble THC

• THC Crumble is made with a procedure very similar to those that create shatter and butter, but the pre-purged oils used for crumble generally have more moisture, a different temperature and a thicker consistency, which help create it's crumbling, cheese-like body after the purging process.



Marijuana Concentrates - Continued

Cannabis Shatter



Marijuana Concentrates - Continued

Cannabis Oil

• Liquid cannabis oil is extracted from indoor cannabis plants using a secret, patented method with top of the line extraction equipment.



Marijuana Concentrates - Continued

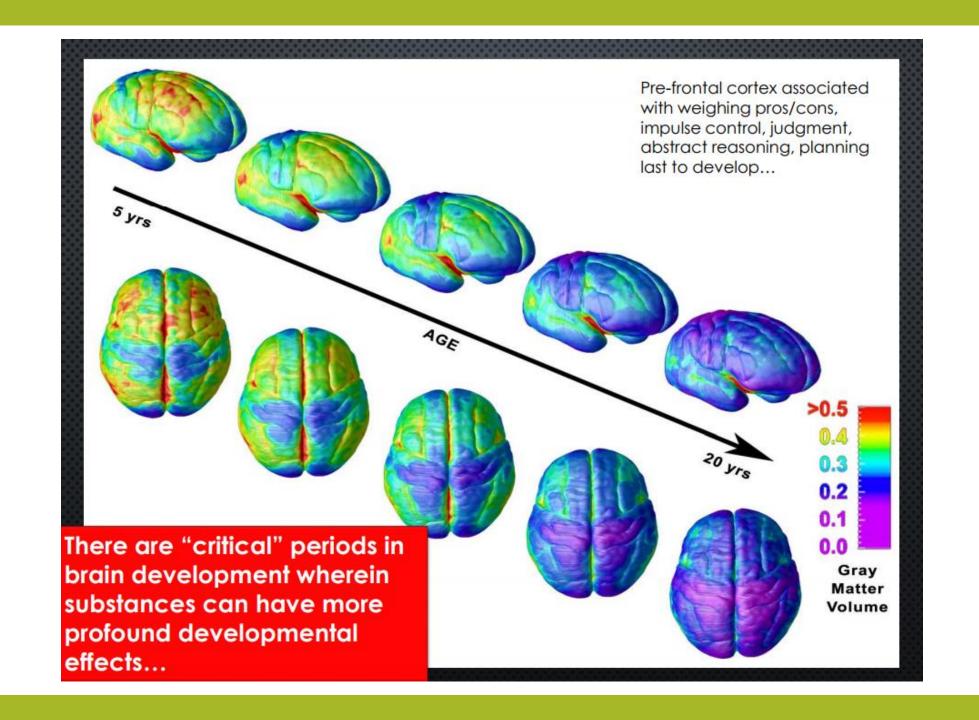
Cannabis Wax

• THC Wax is concentrated form of THC, or tetrahydrocannabinol, that is extracted from marijuana plants. Cannabis THC Waxes are extracted from hand-picked, indoor grown marijuana plants. The extraction process turns the cannabis THC into a wax by heating the plants to 120 degrees Fahrenheit which crystalizes the cannabinoids plants around each other.



THC AND THE BRAIN

What We Know



How THC Affects the Brain

Some people believe smoking marijuana carries no risks. But scientific research shows that there are risks, especially for teens. Marijuana Can affect:

- Judgment
- Impair his or her ability to drive
- Regularly use lead to poor performance at work or school
- Dependence and or developing a high tolerance

Endocannabinoid (EC) System

• Scientists then discovered the body's own natural chemicals—anandamide and 2-AG (2-arachidonoyl glycerol)—which also act on CB receptors. These chemicals (called cannabinoids), along with their receptors, make up the endocannabinoid (EC) system.

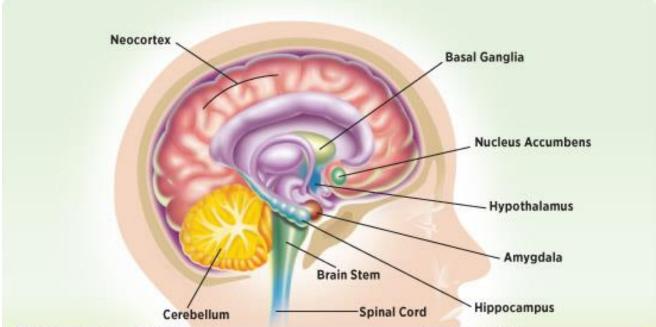
 The EC system is found in many areas of the brain, which explains why it affects so many different body functions. Cannabinoids exert their influence by regulating how cells communicate—how they send, receive, or process messages.
 Cannabinoids act like a type of "dimmer switch," slowing down communication between cells.

So how does THC affect the EC system?

When someone smokes marijuana, THC gets into the brain rapidly and attaches to cannabinoid receptors. The natural EC system is finely tuned to react appropriately to incoming information. But THC overwhelms the EC system. It prevents the natural chemicals from doing their job properly and throws the whole system off balance.

How Does THC Affect the EC System and

Behavior?



| Brain Structure | Regulates | THC Effect on User |
|--------------------------|--|---|
| Amygdala | emotions, fear, anxiety | panic/paranoia |
| Basal Ganglia | planning/starting a movement | slowed reaction time |
| Brain Stem | information between brain and spinal column | antinausea effects |
| Cerebellum | motor coordination, balance | impaired coordination |
| Hippocampus | learning new information | impaired memory |
| Hypothalamus | eating, sexual behavior | increased appetite |
| Neocortex | complex thinking, feeling, and movement | altered thinking, judgment, and sensation |
| Nucleus Accumbens | motivation and reward | euphoria (feeling good) |
| Spinal Cord | transmission of information between body and brain | altered pain sensitivity |

The brain structures illustrated above all contain high numbers of CB receptors

OUT IN PLAIN SIGHT

Current trends

Regular Vape Pens





































SKY













- Initiative 502 legalized marijuana use for adults however there are still a number of restrictions. It is important for you to be aware of the following laws:
- Age Limit Only adults age 21 and older can purchase and possess marijuana.
- Purchase Limits Adults age 21 and over can purchase up to one ounce of useable marijuana (the harvested flowers, or "bud"), 16 ounces of marijuana-infused edibles in solid form, 72 ounces in liquid form, and 7 grams of marijuana concentrates.
- Public Use It is illegal to consume marijuana in view of the public.



- Buying and Selling Marijuana can only be sold and purchased at state-licensed retail stores. A valid photo ID is required, and no one under 21 is allowed on the retail premises. Many retail marijuana stores only accept cash.
- Driving It is illegal to drive under the influence of marijuana if you have more than 5 nanograms of active THC per milliliter of blood. Doing so may result in significant legal penalties.
- Travel It is illegal to take marijuana outside of Washington. Doing so may result in significant legal penalties.

QUESTIONS?

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