

THC:CBD Ratio (Chemotype) Info Sheet

The two most prominent cannabinoids in cannabis are THC and CBD. The ratios between these cannabinoids are grouped into three categories, also known as chemotypes. The following shows a few of the differences in chemotype-based effects.

Cannabis Chemotypes – Evolving Criteria for the Predictability of Effects (examples; not a complete list)



Chemotype I (CT-I)
THC > CBD (more THC)



Chemotype II (CT-II)
THC ≈ CBD (balanced)



Chemotype III (CT-III)
THC < CBD (more CBD)

Relaxation Potential

Deep

Moderate

Mild

Sedative Potential

Conscious sedation
(think couch-lock effect)

Milder

No sedative effects

Cognitive Change Potential

High expectation of cognitive changes & changes in mood

Moderate expectation of cognitive changes & changes in mood

No cognitive changes (as long as >0.3% THC) & positive (gentle) changes in mood

Sample Conditions Supported:

- Autism with agitation
- Alzheimer's with agitation
- HIV/AIDS neuropathies
- Withdrawal symptoms
- Central pains
- Fibromyalgia
- Multiple sclerosis
- Pain due to muscle spasms
- Peripheral neuropathies
- Mental-emotional pains
- Epilepsy
- Heart Disease
- Acne
- Addictions
- Psychosis

Adverse Effects Potential

Very fine line between therapeutic and adverse effects.
Low risk of addiction potential.

Wider line between therapeutic and adverse effects.
Very low risk of addiction potential.

Mostly therapeutic effects (as long as >0.3% THC).
No risk of addiction potential (as long as >0.3% THC).

Sub-ratios

Common CT-I THC:CBD

100:1, 50:1, 20:1, 5:1

Common CT-II THC:CBD

4:1, 3:1, 2:1, 1:1, 1:2, 1:3, 1:4

Common CT-III THC:CBD

1:8, 1:15, 1:25

FDA or EU approved analogues

Dronabinol (Marinol & Syndros)
Nabilone (Cesamet)
Bedrocan (EU) THC:CBD ~(22:1),
Bedrobinol (EU) THC:CBD ~(13:1)
Bedica (EU) THC:CBD ~(14:1)

Nabiximols (Sativex) THC:CBD ~(1:1)
Bediol (EU) THC:CBD ~(6:8)

Epidiolex (US)
Epidyolex (EU)
Bedrolite (EU) THC:CBD ~(1:9)

Sample Strains

Sample CT-I Strains (max THC%)

Godfather OG ~34% THC3
Super Glue ~32% THC4
Strawberry Banana ~32% THC5

Sample CT-II Strains (max THC%)

Cellar CBD: ~7.3% THC:~7.7% CBD6
Hayley's Comet: ~15%THC:10% CBD7
CBD OG ~9.01% THC:19.5% CBD

Sample CT-III Strains (max THC%)

Charlotte's Web ~0.5% THC:17% CBD
AC/DC ~0.8% THC:15.4% CBD
Cannatonic ~0.8% THC:20.8% CBD

Understanding your chemotype and sub-ratio is the first step toward utilizing cannabis medically with more intention and dialing-in effects that are reproducible. To understand what chemotypes might be available in the products you see in dispensaries, just look at the label: states require flower and manufactured products to be tested and label them with the amount of THC and CBD they contain. Within each chemotype is a sub-ratio. For example, a chemotype III with high CBD sub-ratio (e.g., 1:20+) can have no psychoactive effects, whereas a 1:6 sub-ratio can still be a slightly psychoactive for some.



For more on chemotypes, visit
www.cannakeys.com/cannabis-chemotypes