

CBD: A Pharmacist's Perspective

CBD Oil Extract vs Hemp Oil Extract

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CBD OIL
CANNABIDIOL

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Is It Pot?

No.

All Marijuana is Cannabis
but not all Cannabis is
Marijuana



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Marijuana
Female Plant
THC = Tetrahydrocannabinol
Currently Illegal in Tennessee and is Psychoactive

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Hemp
Male Plant
CBD = Cannabidiol
Not Psychoactive

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Tobacco Related Deaths...

6 Million



7

Alcohol Related Deaths...

✦ 3.3 million



8

Prescription Drug Deaths...

✦ 40,000

✦ USA



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CBD Related Deaths...

✦ ZERO

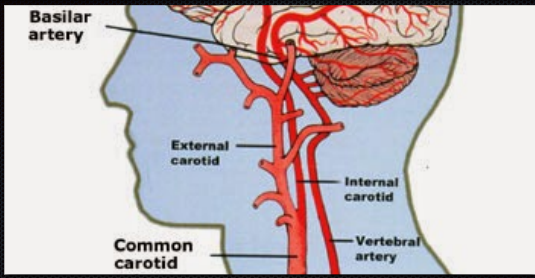


World Health Organization

- CBD is safe and well tolerated in humans
- Not associated with negative public health effects
- Not associated with abuse potential

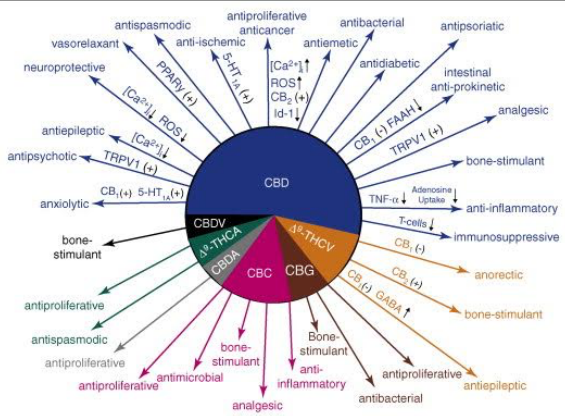


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BLOOD-BRAIN BARRIER
HEATED HEMP OIL RELEASES CBD

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TOP SELLING PRESCRIPTION DRUGS

PAIN & ANXIETY

TOP SELLING CBD BENEFITS

PAIN & ANXIETY

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Neuro

- Anxiety 1-3mg 1-3 times Daily
- Social Anxiety “”
- Stress “”
- PTSD 40-60mg Bedtime
- Depression 20-40mg Bedtime
- Insomnia 40-160mg Bedtime



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Neuro

- Seizure 200-300mg Daily
- Epilepsy “”
- Dravet Syndrome 20mg/kg/day
- Multiple Sclerosis 10-120mg daily
- Parkinsons Disease 75-400mg Daily
- Alzheimer’s Disease “”
- Psychosis 400mg 4 times Daily
- Schizophrenia “”
- Substance Abuse (no data yet)



Dravet Syndrome Study

N Engl J Med. 2017 May 25;376(21):2011-2020. doi: 10.1056/NEJMoa1611618.

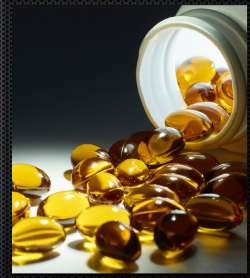
- Interactions at 35mg
- Increased side-effects of anti-epileptic drugs
- 70% of patients experienced a 50% reduction in overall convulsive seizures



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Pain

- (Acute)
- Migraines
- Inflammation
- Muscle Spasms
- Sciatic Nerve
- 40-600mg Daily



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Immune System

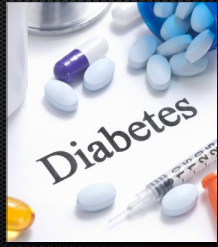
- Cancer
- Anti-Tumor 100mg/kg/day (60%)
- Breast 700mg Daily
- Prostate TBA
- Brain TBA
- Colon 1-5mg/kg/day (Polyps)
- Lung 5mg/kg every 3 days



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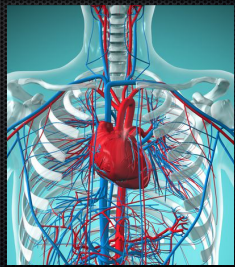
Diabetes

- Metabolic Syndrome
- Acne
- Sugar Control
- Reduces damage by enhancing mitochondrial bioenergetics and shifting glucose metabolism into the pentose-phosphate pathway
- 100mg Twice Daily



Heart

- Circulatory System
- Blood Pressure
- Stroke
- Heart Attack
- 600mg Daily



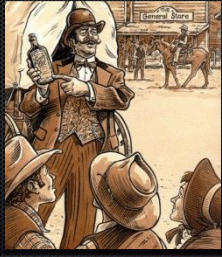
Drug/Drug Interactions

- Cytochrome P 450 Enzyme Pathway System
- CYP3A4
- CYP2C9
- CYP2C19
- CYP3A4
- CYP2D6



Wild West

- JAMA 70% of CBD products do not match label
- (Bon Miller et al., 2017)



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Hemp Oil

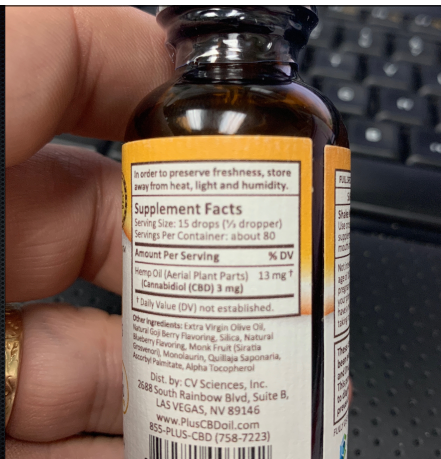
Read Label



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CBD Oil

Read Label



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FDA Warning Letters

- 91% of Products tested did not match label (2016)



Legal: Section 7606

- Federal legislation passed the 2014 Farm Bill
- Hemp grown according to Section 7606 does not fall under DEA jurisdiction
- Hemp grown according to Section 7606 is not considered Marijuana
- The acting head of the DEA Chuck Rosenberg confirmed publicly in front of a congressional hearing on April 6th, 2017
- CBD manufactured outside of Section 7606 protocols is illegal



Legal: Section 7606 Compliance Requirements for Distribution

- Partnership with a state agricultural organization
- or a partnership with a university
- THC concentration must be 0.3% or less
- CBD can only be extracted from the flower of the hemp plant



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ANANDA PROFESSIONAL

600 TOTAL BOTTLE

CONCENTRATION
20MG PER ML



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ANANDA PROFESSIONAL THC FREE

ISOLATE

THC HAS BEEN
REMOVED

LCUB/OAK RIDGE ETC



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Will I Fail A Drug Test?

- Original Full Spectrum CBD with (0.3% THC)
- It is possible.
- Creates a False Positive during a urine drug screen (UDS)



Will I Fail A Drug Test?

- THC FREE CBD Full Spectrum Products
- It is possible.
- Can cause a False Positive during a urine drug screen (UDS)



How Long Is It In The Body?

- Half Life 9-32 Hours
- Need about 7 days to clear the system



Conclusions

- Pharmacists should counsel and assistance with drug interactions and medication management
- We need more uninhibited research to be done
- Medical cannabinoids have a place in healthcare
- CBD may be an effective alternative for many patients
- Full Spectrum is more effective than isolates
- Excellent safety profile
- Read the label and check the COA
- Only some CBD is legal
- **Ready or not... CBD is coming!**

Resources

- PubMed
- US National Library of Medicine (NLM)
- National Institutes of Health (NIH)
- Drug Enforcement Administration (DEA)
- National Alliance on Mental Illness (NAMI)
- National Institute on Drug Abuse (NIDA)
- Substance Abuse on Mental Health Service Administration (SAMHSA)
- National Community Pharmacists Association (NCPA)

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Questions?

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