

CBD In Food And Beverages



Ronda Stone, DACF, QAR

Dr. Kellie Roberge, Tricann
Alternatives

CBD In Food And Beverages

- Not Psychoactive
- Consumer Demand
- Benefits vs No Benefits
- Lessons on How to Use

Relax.

We are talking about CBD not THC.

- Certified CBD has no psychoactive effects
- In Maine, CBD is considered a safe food ingredient
- There is consumer demand for CBD products
- As with any food ingredient, obtain it from a reliable source, get their test results, test the products yourself and learn how to use CBD properly

What is driving the demand for CBD infused products?*

- Reduction in pain
- Reduction in symptoms of anxiety, depression, stress and PTSD
- Reductions with muscle spasms
- Heart Health support
- Blood pressure regulation
- Pancreatic restorative properties
- Appetite stimulation and nausea associated with cancer patients
- Insomnia

* These claims have not been approved nor supported by the FDA

Some people have experienced beneficial effects from using CBD for a while but then it “stopped” working, or for some, they felt no beneficial effects at all.

Possible reasons “why”?

- Not all CBD products are dosed appropriately
- Not all CBD products contain the amount of CBD indicated on the label
- Does the CBD product contain CBD distillate, isolate or full spectrum
- Are you obtaining products from a reliable medical source?
- Are you taking the right dose for you and your symptoms? Remember all people are different and need different levels of dosing to treat their ailments/symptoms. Start with a low dose and go up daily until symptom relief occurs.

I love to cook, can I make CBD infused food?

You can, but you must understand:

- Where to find reliably sourced CBD
- What is CBD extract and what are the different forms they come in?
- What form of CBD will work best in the food product that you want to make?
 - *Whole flower, isolate, full spectrum, broad spectrum or distillate oil*
- Learn how to evenly incorporate the chosen CBD extract form, so all portions have the same dosing
- Know how to accurately dose your end product
- Understand that more does not mean better

The following information is intended to provide some background information and answer the most basic questions.

You will need to conduct your own research and development.

If you want to produce CBD infused foods/beverages, do your homework and do it right.

- Maine law, like the US Farm Bill of 2018, has expanded the definition of hemp to include cannabis plants and extracts of such plants (including cannabidiol or CBD) which have less than 0.3% delta-9-THC by dry weight.
- The US FDA retains the authority to regulate food, drug, and cosmetic products, including those containing hemp or cannabidiol/CBD.
- September of 2019, Maine made changes to the previous law to allow the use of CBD produced outside the state of Maine if the CBD is sourced from states that have the Farm Bill 2014 Hemp Program.

CBD Infused Food/ Beverage Requirements

- THC and Labeling
- Who and Where
- Beverage Safety and Concerns

- THC content must be less than 0.3%
 - *Particular caution needed when using whole flower, full spectrum and distillate oils*
- CBD Food Label or Restaurant Menu must include:
 - Cannabidiol or CBD as ingredient and clearly stated on the label/package
 - The mg amount of CBD per dose for food/beverage
 - Must **NOT** make any health claims that items with hemp/CBD can treat, cure or prevent any disease, condition or injury.
- Foods containing CBD must be manufactured from a licensed Maine vendor with appropriate license authorizations.

Who can produce and sell CBD infused food/beverages?

- Licensed food manufacturing facilities*
- Licensed restaurants
- Retail Store with food prep authorizations
- Licensed Bar

* Make sure you ask for their food license and test results before purchase.

CBD Beverage Safety and Cautions

- Currently, it is unknown what effects CBD may have on microbes present in a bottled beverage, including water.
- The manufacturer of a CBD infused bottled beverage must validate the safety of their bottling process to ensure public safety. Any food processing authority receiving federal grant money is prohibited from working with CBD/THC products. It is difficult and potentially very costly to prove the safety of a bottled CBD beverage.
- Before offering/selling a CBD bottled beverage, you should ask the bottler/Maine vendor for a copy of their **Process Review** from a recognized food processing authority.
- A shelf life test and refrigeration as the only control against Clostridium Botulinum is no longer considered adequate to ensure public safety. This is because the general public does not recognize the need to keep these beverages refrigerated.

CBD Forms, Types and Definitions

- Forms
- Types and processing needs
- Distillate vs Isolate

Forms of CBD

- **Whole Flower** - It is exactly as it sounds, whole plant material.
- **Full-spectrum** - Contains all of the naturally available compounds of the hemp/cannabis plant (including chlorophyll and THC). However, if the legally sourced hemp has been derived from an approved hemp seed, then THC content should be no more than 0.3 percent per mg dose.
- **Broad-spectrum** - Has all of the naturally occurring compounds, but the THC has been separated and removed from the final product.
- **Isolate** - Purest form of CBD, isolated from the other compounds of the hemp/cannabis plant. CBD isolate should have no THC.

Types CBD Concentrates

- **Cold water hash** - No solvents used; cold water/ice
- **Distillate** – Obtained through butane, CO2 or ethanol wash extraction
- **Hash** – No solvents, obtained directly from the whole plant
- **Isolate** - Further processed CBD extract – all other cannabinoids are removed.
- **Shatter** - Brittle concentrate made using an isolate
- **Solventless shatter** - (aka: rosin); heat and pressure
- **Wax, batter, terp sauce** – Obtained through butane, CO2 and ethanol extraction

Large scale CO2 and ethanol extracting are emerging as the leading methods for handling large scale plant material

Distillate or Isolate; What's the difference?

- **Distillate:**
 - Broad spectrum (THC-free distillate)
 - Full Spectrum (contains .3% THC or below) – Better entourage effect
 - Soluble in oils (great for all food products, minus beverages)
- **Isolate:**
 - Purest form of CBD; all other cannabinoids are removed
 - Contains no TCH
 - Crystalline solid or powder
 - Sonicated CBD isolate is water soluble

CBD Source Matters

- Questions to Ask
- Lab Report
- CBD Hemp vs Industrial Hemp
- Where to Buy
- How to Test

Questions you should ask when purchasing your CBD

- If you purchased your CBD, did it come with a lab report?
 - If not, ask if they can provide one
- Is your CBD free of pesticides, solvents, pathogens/fungi?
 - Ask for a report
- Should I test the CBD that I purchased, even though I received a lab report?
 - Yes, it is always better to test twice to ensure accuracy before use
- Does the extract contain the amount of active CBD indicated by the source?
 - Third party testing will determine the accuracy of the source

Source Lab Testing Report

Pesticide Testing

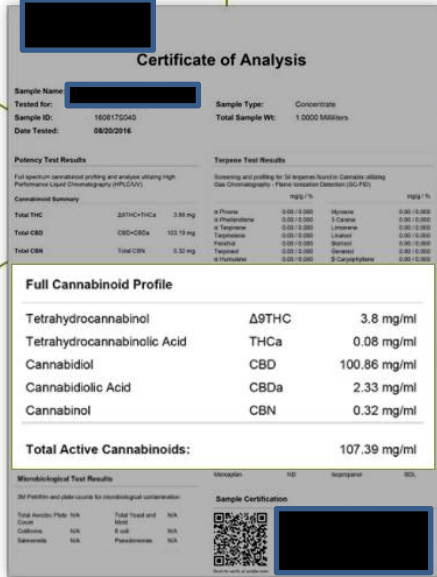
Detects even trace amounts of chemical pesticides in hemp concentrates using advanced testing procedures.

Cannabinoid Profiling

Reveals the concentration of active cannabinoids for accurate dosage and to ensure the quality of the product.

Microbiological Screening

Determines if there are any microorganisms and harmful pathogens such as bacteria and fungi present in the hemp.



Certificate of Analysis

Sample Name: [REDACTED] Sample Type: Concentrate
 Tested For: [REDACTED] Total Sample Wt: 1.0000 Milligrams
 Sample ID: 1608175040
 Date Tested: 08/20/2018

Full Cannabinoid Profile

Tetrahydrocannabinol	Δ9THC	3.8 mg/ml
Tetrahydrocannabinolic Acid	THCa	0.08 mg/ml
Cannabidiol	CBD	100.86 mg/ml
Cannabidiolic Acid	CBDa	2.33 mg/ml
Cannabinol	CBN	0.32 mg/ml
Total Active Cannabinoids:		107.39 mg/ml

Terpene Analysis

Allows for the ability to provide an optimized hemp oil to maximize the desired therapeutic effect.

Residual Solvent Testing

Identifies the presence of harmful solvents, impurities and other added odorants and chemicals present.

Maine Hemp vs Industrial Hemp

- **Maine Hemp**
 - They are committed to growing CBD rich hemp
 - Many are using organic practices and some are organic certified
 - No pesticides
 - No herbicides
 - Hemp is intended for CBD extraction, not fiber
- **Industrial Hemp**
 - May be grown with practices that include pesticide and herbicide use
 - May be grown on land not suitable for growing feed for livestock or food for people

Where to buy your CBD flower or extract?

The Maine hemp growers may be a good source to learn about the most reliable extractors.

A list of licensed hemp growers can be found on the Maine.gov website.

<https://www.maine.gov/dacf/php/hemp/>

Consideration factors on how to infuse CBD

- **Understand your food and beverage ingredients**
 - Which form of CBD will work best for your end product(s)?
 - Understand how the CBD distillate/isolate will react with your food product in terms of uniform infusion
- **Know what mg dose you are trying to achieve**
 - R&D – Trial batches for batch size; send out for third party testing to ensure accuracy with dosing
- **Trial and Error**
 - The perfect batch, may take some time. Don't get frustrated.

Where to Test your CBD and Product/s

ProVerde

220 Industrial Way, Portland, ME

(ME branch of MA Medical Marijuana Testing)

<http://www.proverdelabs.com/>

Tested Labs-Nelson Analytical Laboratory

120 York Street, Kennebunk, Maine

<http://www.nelsonanalytical.com/>

Licensing

- Retail/processing food license is required. Licensing is no different than that required for the sale/processing of non-CBD food:
 - Home food processing
 - Commercial processing
 - Beverage Plant
 - Retail with food prep authorizations
 - Restaurant; Eating Establishment License

Summary

- CBD source matters
- Take the time to understand the forms of CBD and which one to use when infusing products
- Always test your CBD extract and infused food to ensure you are indicating the correct mg CBD on the label or menu
- Never make any health claims; verbally or on a label/menu

Helpful Video Articles and Links

- <https://medium.com/alphagreen/cbd-infused-food-and-drinks-the-ultimate-guide-de8f221598eb>
- <https://www.avery.com/blog/cbd-label-requirements-what-you-need-on-your-cbd-labels/>
- <https://www.youtube.com/watch?v=gvZWvRyWHM4>
- <https://www.cannadish.net/how-to-make-cbd-oil-edibles-like-an-expert/>
- [https://www.youtube.com/watch?v= dOIRs0n-88](https://www.youtube.com/watch?v=dOIRs0n-88)
- <https://www.huffpost.com/entry/how-to-bake-cbd | 5cd08bd1e4b04e275d4e8ba7>

THANK YOU



QUESTIONS?

www.maine.gov/agriculture
207-287-3841