

New Frontiers in Food

Legal or not, consumers are primed, ready and waiting to taste more CBD treats.

December 2, 2019 By [Gerrie E. Summers](#)

Gummies, smoothies, lattes, pizzas and hot sauce are among the many foods and beverages infused with cannabidiol (CBD) that consumers can find at cafés, restaurants and grocery stores across the country. Driving the popularity of such foods are the numerous health benefits credited to this compound derived from the Cannabis sativa plant.

CBD is just one of many cannabinoids—reports claim from 66 to 113 are known—found in cannabis. The compound is said to be beneficial in the treatment of a host of health conditions ranging from chronic pain to epilepsy. Cannabinoids, natural phytochemicals found in the cannabis plant, can exert a positive effect on mood, pain and anxiety. These botanicals work by interacting with the endocannabinoid system, a network of cannabinoid receptors and neurotransmitters in the body that helps maintain health.

But cannabis also contains tetrahydrocannabinol (THC), another cannabinoid that, unlike CBD, is psychoactive and gives users a buzz. When THC is found in cannabis at levels of 0.3% or less, the plant is classified as hemp. But if the amount of THC in cannabis exceeds 0.3%, then the plant is categorized as marijuana, a Schedule I substance—the most restrictive class of drugs under the Drug Enforcement Administration’s Controlled Substance Act—which means it’s illegal to buy, sell or transport it between states.

Herein lies the confusion. Because CBD is also derived from marijuana and considered a drug, the compound is subject to regulation by the Food and Drug Administration (FDA) and individual states.

Furthermore, the FDA prohibits CBD, or any drug, from being used as an ingredient in foods and drinks. What’s more, the agency has neither approved CBD as a food additive nor allowed manufacturers of products containing it to make health claims.

However, none of this has stopped businesses hungry for a share of this lucrative market—estimated to reach \$20 billion in sales by 2024—from including CBD in many different kinds of foods and promoting the cannabinoid as a panacea for a lengthening list of health issues.

Clearly, these advertising strategies work. According to a Consumer Reports survey, an estimated 64 million Americans have tried CBD, and edibles, infused foods and drinks are some favorite ways

for folks to get a taste. There are even CBD treats for pets.

“It is indeed popular to add [CBD] to foods, and manufacturers are using secretive methods of incorporating CBD into products,” says registered dietitian Heidi Moretti, who publishes the website The Healthy RD. “The challenge, when adding CBD oil to water or beverages, is that it does not emulsify, so stability is questionable. At this point, it is impossible to know if adding CBD oil to beverages and foods will retain its benefits. We also don’t know the shelf stability of CBD oil when added to commercial foods.”

Moretti believes that when CBD is added to food, consumers find this method of delivery more appealing and perceive it to be less harmful than taking a dose of cannabidiol in supplement form. “My opinion is that it’s safe,” she says.

But do consumers really derive any benefits from CBD-infused beverages?

“This is very dependent on the specific products being used,” says Brooke Alpert, a registered dietitian, licensed cannabis practitioner and founder of DailyHabitCBD.com. “The benefits all depend on the quality of the CBD, the amount per serving and whether the CBD is actually CBD rather than hempseed oil, for example.

“The benefits of CBD can still be fully active when found in foods or beverages,” Alpert continues. “The one factor that can alter the compound is heating. So if the food is a baked good, it’s possible some of the benefits will have been lost while cooking. A lot of premade foods and beverages use inferior CBD products, so finding options that use good-quality CBD is the most challenging goal.”

Some experts think it’s possible that small amounts of CBD in drinks, such as coffee and smoothies, can build up in the bloodstream to help relieve conditions such as insomnia and inflammation. “This is potentially true,” Moretti says. “The half-life of CBD in the blood is 31 hours. This means that CBD could remain in the blood for greater than a day. If people had a smoothie containing CBD every day, a person could maintain a blood level that might be therapeutic.”

But until CBD in foods and other consumer products is regulated by the government, individuals won’t really be sure of the quantity or quality of CBD they’re consuming.

“I think that the push to add it to foods is more of a money grab than necessarily to help people, because CBD is readily available anyway,” Moretti observes. “I don’t think it is useless per se, just that the benefits would be equal in supplement form and in food form. Its solubility is unknown, however, so if people want to actually get the CBD into their bodies, I think the supplement route would actually be a surer bet.”

What should you keep in mind before adding CBD to your food? First and foremost, check with your doctor before using CBD to ensure that the compound won’t interfere with prescription medications you’re taking. Also, note that the right dosage will depend on your weight and other factors, so do your research and discuss all variables with your physician.

CBD is available in three forms:

Full Spectrum. This form of CBD contains all the phytochemicals found in the cannabis plant, including CBD; trace amounts of other cannabinoids, including THC; terpenes; and essential oils. Users reap the benefits of the entire plant in what is called the “entourage effect.” Each compound amplifies the therapeutic properties of the others and helps to alleviate potential side effects. (Expect to pay a higher price for this form of CBD.) Note: Consuming high levels of this CBD oil could result in a failed drug test.

Broad Spectrum. This form of CBD includes all the compounds in the plant except THC and also produces the entourage effect.

CBD Isolate. This form of CBD contains no other cannabinoids and offers users no entourage effect.

Alpert advises consumers to buy full-spectrum, organically grown CBD to tap into all the other cannabinoids, terpenes and antioxidants present in cannabis.

“And my last criterion is to buy only from a company that is transparent,” she says. “The more the company is willing to share, the better. But at minimum, you need to be able to find a certificate of analysis online or request third-party testing to ensure you’re getting what you’re paying for!”

CBD is often described as having a grassy, earthy flavor, which some may find unappealing. In addition, it can also taste bitter.

One fix is to buy a product in a lower concentration (which will have no taste) or mix CBD with a carrier oil, such as coconut, hempseed, olive or MCT oil, which helps to disguise the taste. Adding CBD oil to food makes the cannabinoid more palatable. But this can also affect its rate of absorption and possibly lessen its effects.

Some say that full-spectrum CBD oil or 99% pure CBD isolate powder work best for cooking. “In smoothies, you can use any good-quality CBD in a tincture or powder form,” says Alpert. “I’ve found that powders are the most user-friendly format, and it’s incredibly easy to halve or double the serving.”

How much should you use? “Most containers of quality CBD will give you a suggested serving size,” says Alpert. But 10 milligrams is the “sweet spot” dose that offers the most benefits, she notes, citing her practice and research.

“Now, if you’re dealing with more serious health conditions, then, obviously, the serving sizes will need to be higher, based on the condition.”

But skip the brownies, cakes and alcoholic drinks with CBD, she advises. “If you’re after anti-inflammatory benefits, consuming a high-sugar food or drink with CBD won’t be the answer,” Alpert says. “The vehicle that delivers the CBD needs to offer health benefits as well.”

Food Fight

The FDA tackles CBD.

The Agriculture Improvement Act of 2018, better known as the farm bill, has caused problems for regulators, including the Food and Drug Administration (FDA), as well as confusion among hemp farmers, manufacturers, businesses and consumers, with many believing the legislation legalized all cannabidiol (CBD) sourced from hemp nationally.

But the FDA policy states that although there are products on the market that add CBD to food or label CBD as a dietary supplement, “under federal law, it is currently illegal to market CBD this way.”

This prompted a crackdown in several states, even those that previously legalized recreational marijuana. Some are taking a wait-and-see approach while others are stopping sales of CBD and threatening to issue fines to businesses that aren't in compliance.

In New York City, restaurants and other establishments were warned about selling food and beverages that contain CBD, and such items were embargoed. Later, the New York City Health Department sent letters warning that, effective October 1, violators would face fines and lowered health grades.

According to Scott Gottlieb, MD, the former commissioner of the FDA, the only way such businesses could offer consumers these comestibles is if the agency first issues a regulation, through notice-and-comment rulemaking, allowing them to use CBD in this way. That hasn't happened yet.

Many companies in the food industry won't sell products containing CBD until FDA regulations are resolved. Until then, many businesses are in limbo, and upstarts will find it hard to get financing and insurance enabling them to reap their share of profits from sales of cannabidiol, which are estimated to reach \$20 billion in sales in the United States by 2024.

At press time, Senate Majority Leader Mitch McConnell was pushing the FDA to issue temporary guidelines on how strictly the agency would enforce rules on the sale of CBD products. But, in addition to that, the FDA must also determine how to regulate these in-demand commodities in the long term.