



So, you want to take cannabinoids/CBD to enjoy all the benefits that millions of people have discovered or are just discovering. Question you have to ask yourself is – How do I take it? How much do I take? There's vapes, hemp cigarettes, oil, tinctures, gummies, cookies, chocolate, water, sublingual sprays, pills, topical creams and now gum. Then there's full spectrum hemp oil with CBD Vs isolate.

So, let's compare:

Smoking or vaping

Inhalation by smoking a substance is the most rapid way to deliver CBD to the brain, as the substance travels directly to the brain without being diluted in the systemic circulation. However, it's not good for your body's repository system (lungs, larynx, bronchi, trachea, esophagus), end of story.

Major health problems caused by smoking affect the delivery system: the airways, blood vessels and lungs in the human respiratory system. Hot gases and particulate inhaled during smoking contact the tissue and mucous membranes that surround the mouth; larynx, and pharynx, or throat. These

areas suffer continual irritation from smoking, and smokers may develop symptoms such as hoarseness, coughing and wheezing due to inflammation.

Chemicals and particulate from smoking or vaping continue on to the bronchi, the airways that leads to the lungs. There, smoke acts on the cilia, (the tiny hairs that sweep away debris to keep the airways clear.) When damaged cilia can no longer function, excess mucus and foreign matter clog the bronchial space.

The alveoli of the lungs suffer from smoking, eventually breaking down and losing their effectiveness in transferring oxygen to the blood. This second stage of COPD, emphysema, is characterized by shortness of breath and difficulty exhaling. Smoking restricts exercise tolerance, making everyday activities more difficult and strenuous exercise impossible for many people.

Ingestion administration or anything swallowed.

Ingestion, while considered to be the easiest form of administration, isn't the most efficient method for absorbing CBD. This includes gummies, cookies, chocolate, water, pills or anything swallowed.

When CBD is ingested, it is absorbed by the digestive system. From the stomach, the compounds enter the hepatic portal system, where they are carried through into the liver. The liver then metabolizes the CBD molecules, in what's referred to as

the “first pass effect.” Here, CBD can be significantly broken down before reaching the blood.

Other reasons for decreased oral bioavailability include destruction of the drug by gastric acidity, intestinal membrane enzymes, complexation with food constituents or bacterial enzymes. Foods, especially fat, can slow gastric emptying. Absorption can be limited by the short transit period of the drug through the small intestine (2-4 hours). These functions act on CBD, reducing the concentration of the compounds before passing on what remains to the bloodstream. The first pass metabolism effects a large portion of the CBD and its metabolites are excreted in feces and urine, which means that a lot of the benefits are literally flushed away.

With edibles, the bioavailability of CBD is estimated as low as 5-20 percent. Also effecting bioavailability is a person’s age, gender and body weight.

Topically Applied

When you rub CBD oils or creams onto your skin, it will never reach the bloodstream. CBD products are unable to penetrate the skin. In using CBD this way, you may get targeted relief to a specific area. The skin absorbs CBD so that it can interact with local cannabinoid receptors. Generally, human skin is not very permeable. It blocks the majority of substances preventing them from entering the body.

Skin does not absorb cannabinoids very well. Absorption rates are very low. This is why, for topical CBD products to work, you

have to apply the cream very generously, so it is thick enough to break this barrier. If you are liberal enough in your application, your skin pores may absorb CBD to affect targeted local healing. This method works best when lotions, salves and balms contain very high levels of CBD.

Oral administration

Within the oral cavity, delivery of CBD can be classified into three categories: (i) sublingual delivery in which the dosage form is placed on the floor of the mouth, under the tongue, (ii) buccal delivery, in which the formulation is positioned against the mucous membranes lining the cheeks, (iii) periodontal delivery, to treat below the gum margin. Absorption of drugs in general from the oral cavity is typically a fast event.

Sublingual

In general, various factors of a drug molecule influence the extent of permeation through oral membranes. The lipid solubility, pH of the drug, degree of ionization, presence of saliva and the membrane characteristics, molecular weight and size of the drug, various physicochemical properties of the formulation, and the presence or absence of permeation enhancers, all affect the absorption and the permeation of drugs through oral administration.

In order to be absorbed orally, a drug must first dissolve in the saliva. And since hemp oil is not water soluble it further complicates absorption as extremely hydrophobic materials are likely to be swallowed intact unless a specialized delivery

system is used to present them to the mucosa. As discussed above, drugs swallowed in the saliva do not avoid first pass metabolism and will be subjected to degradation by digestive system.

Dissolved drugs in saliva partition into the mucosal membranes reach equilibrium within minutes in the oral cavity. However, this does not always equate to rapid drug delivery in the systemic circulation. This has been attributed to slow partitioning out of the mucosal tissues and into the systemic circulation.

The bioavailability of a sublingually administered drug at doses below the saturation solubility in the mouth is constant and controlled primarily by a mass transport equilibrium. At doses above the saturation solubility, the bioavailability becomes more dependent on contact time in the mouth. Since its unpleasant holding a bunch of saliva containing hemp oil in one's mouth a sublingual dose is usually swallowed long before it reaches mass equilibrium.

Generally, the bioavailability of a low dose sublingually administered is around 35%. The bioavailability is more or less constant at low doses and goes down when the doses exceed 5 mg. Once the mass transport equilibrium has been reached, no further drug absorption into the sublingual membranes happens. At this equilibrium point, the remaining dose, which cannot be absorbed into the mucosal tissues, will simply be swallowed.

Buccal Mucosa

The buccal mucosa contributes to rapid and extensive drug absorption.

The buccal mucosa is the area between the gums and cheeks. The blood supply from the buccal mucosa unlike the remainder of the gastrointestinal tract, does not drain into the hepatic portal vein, since these peripheral areas are not specialized for the absorption of nutrients. Drugs which are absorbed through the mucosa enter the systemic circulation directly via the jugular vein, thereby avoiding passage through the liver where they might otherwise be metabolized.

The oral cavity is well vascularized and has a large contact surface area so a rapid onset of action and high blood levels of drug absorption are obtained quickly. In many cases buccal drug delivery can result in the same bioavailability as intravenous administration.

Wellness Gum – Simply the best way to take cannabinoids/CBD. Period!

So, let's compare.

Wellness Gum delivers cannabinoids/CBD better than any other method. Wellness Gum has the highest absorption rate of over 80%. Cannabinoids/CBD from our gum enters the body fast, sub-lingually through the oral mucosal and through the

buccal mucosal via the cheeks, lips, tongue, hard and soft palates and through your gums. That's why we have the highest bioavailability.

Many people who take CBD oils complain of cotton mouth. Not so with Wellness gum. Wellness Gum tastes great from the second you put it your mouth until the very last chew.

Wellness Gum provides for the time released delivery of Cannabinoids/CBD through patented micro-encapsulation.

Wellness Gum is safer than smoking or vaping. Getting your daily dose of CBD through chewing gum eliminates the first pass effect and gastrointestinal degradation of oral ingestion. So, you can take less and get more. CBD from Wellness Gum gets directly into your bloodstream in minutes Vs topically applied.

We use organic full spectrum pure hemp oil extract with CBD. Includes over 80 varieties of Phytocannabinoids delivering the "Entourage Effect" of having Phytocannabinoids work together to produce greater benefits Vs isolates. Our hemp oil is rich in heart healthy Omega 3 and Omega 6 fatty acids. Loaded with natural vitamins and minerals. There's No THC, its sugar free, Non-GMO and vegetarian.

Lastly, numerous clinical studies have shown that chewing gum delivers additional health benefits, including:

- ❖ Increased cerebral blood flow
- ❖ Memory improvement

- ❖ Neuroprotection
- ❖ Improves Focus
- ❖ Increased saliva production
- ❖ Increased intestinal motility
- ❖ Prevents tooth decay

So what are you waiting for [ClickHere](#) to Order Wellness Gum and enjoy the best way to take Cannabinoids/CBD. Period!

<http://ijpsr.com/bft-article/a-detailed-review-on-oral-mucosal-drug-delivery-system/?view=fulltext>

<https://www.europeanmedical.info/drug-delivery/absorption-of-drugs-across-the-oral-mucosa.html>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3513449/#CR21>