Bioavailability of CBD Products and Why Some Forms Work Better Than Others

In order for CBD to be effective, it has to enter your bloodstream. So swallowing a dropperful should do the trick, right? Wrong.

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Imagine eating food and none of it gets digested or absorbed. The nutrients will be useless, providing zero energy, and benefits. The same concept applies to CBD. What if it fails to absorb into your bloodstream?

What Is Bioavailability?

Bioavailability is the scientific term used to describe the absorption of any consumed substance into the bloodstream. It’s the rate and amount of drug that reaches the desired target area. In some cases, bioavailability is the amount of drug absorbed in the bloodstream. Bioavailability is a fraction that communicates how much drug was absorbed over how much drug was consumed initially.
CBD and Bioavailability

Cannabinoids such as CBD are lipophilic molecules, which means they are insoluble in water. But our body is made up mostly of water which can hinder the process of absorption.

When a drug is consumed, it needs to be absorbed into the body quickly. Otherwise, our metabolic system starts breaking it down immediately. This tends to happen if you consume CBD orally. The liver begins metabolizing a significant percentage of the CBD before it gets a chance to be absorbed in the body.

If an excess substance is left behind in the body which hasn’t been absorbed, our system automatically excretes it. When you urinate, all excess CBD that failed to absorb in your bloodstream exits from the body. However, a drug with high bioavailability is absorbed by the organs instead of being removed from the body.

It is easily understandable that unless CBD is absorbed in the body, it won’t get to the target area. No matter what benefit you want from the drug, unless it gets a chance to become a part of your bloodstream, it won’t reap any results.

Oral CBD consumption has a low bioavailability rate. However, other methods of consumption, such as vaping and CBD oil are more effective.

How Bioavailability is Improved

Oral CBD has low bioavailability. That’s because it’s a substance that isn’t soluble in water. The only way to absorb it in the body is by attaching to fatty tissues. This process is slower, and hence, the absorption rate of CBD as it cannot be altered.

However, there are some ways in which you can experience an improved level of bioavailability while consuming a CBD product. Primarily, the consumer’s body weight plays a prominent role in the process. Other than that, the quality of the product also affects this rate. Certain CBD products are manufactured in a way that their bioavailability is improved.

One way to do so in oral CBD products is to alter it to different forms. For example, it can be manufactured as capsules, oil, or powder. Oils and powders absorb better. CBD oil is also the safest among all options to take a higher dosage.

You can also place this oil under your tongue for a few minutes before you swallow it. This allows the CBD to absorb into the membranes without getting broken down by the liver’s digestive enzymes directly. This method is called sublingual delivery.
Just because the absorption of oral CBD is low, doesn’t mean you should start taking it in vast amounts. It’s wise to consult a health practitioner first to know about the right dosage.

Some other methods that help improve the bioavailability of products are their manufacturing process. Amorphous solid dispersion tablets, for example, have a smaller molecule size so they’re easier to absorb. A self-emulsifying drying system technique can also be considered. However, you should always seek a health professional’s advice before choosing any method. That way, you’ll be sure of not getting any side effects of the product.

**Importance of Bioavailability**

Bioavailability plays a huge role in the efficacy of any product. Whether you’re seeking relief from chronic pain or want to sleep better, if the CBD doesn’t enter your bloodstream, it won’t help your body out in any way.

This is why bioavailability is a major factor to keep in mind when you’re deciding the consumption method and the product itself. The market offers various CBD products that you can choose from based on your preference. Rectal suppositories, topical formulas, inhalation, and smoke ingestion might be more inconvenient than oral consumption. However, their higher bioavailability rate makes them more effective too.

Bioavailability is a decisive factor in the efficiency of any drug. No matter how amazing or high-quality a CBD product is marketed to be, unless it is absorbed efficiently into your body, it is useless. Therefore, check the bioavailability rate of CBD products beforehand, ask for reviews, and then, make a sound decision.

**References:**

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Dr. Diana Rangaves is Doctor of Pharmacy (Pharm D). She graduated from the University of California, San Francisco and specializes in pharmacotherapy management. Diana has a broad range of acute clinical background and ambulatory care. She was an academic college professor; teaching critical thinking, ethics, pharmacology, addiction, behavior patterns, pharmacy, and nursing. As a Clinical Pharmacist, she is focused on chronic or disease state management.

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