

CUBED Naturals

CBD Beginnings: CBD Intake or Bioavailability

Let's look at common methods of taking a CBD product and how the body absorbs it. **Bioavailability is the term used to describe how much CBD will be taken into the body.**

Because of the hydrophobic properties of CBD oil and tinctures, the method of taking CBD can greatly affect the amount of CBD that is made available to the bloodstream. CBD does not dissolve in water but collects in fatty tissue; this reduces the amount entering the bloodstream. Other factors such as weight and body makeup also affect CBD intake. This is why it is important to tailor your intake to meet your goals.

Although not practical on any level, the best way to intake 100% of CBD would be to directly inject it into your blood - intravenously.

Vaping, using a vape pen or vaporizer is one of the quickest ways to administer CBD. When inhaled, the CBD enters the lungs. It then passes through the *alveoli* which are tiny sacs that exchange carbon dioxide and oxygen between the bloodstream and lungs. The CBD is transferred along with oxygen into the bloodstream. The bioavailability of vaping is about 50% to 60% of the CBD. Vaping is a very popular method of ingestion but there is some concern as to the compounds or vape juice that the CBD is added to.

Oral or sublingual application is where CBD oil or CBD tinctures are placed under the tongue. The oil is absorbed through the mucous membranes. Small capillaries in the membrane of the connective tissue diffuse the CBD, which enters the bloodstream. In this application the CBD bypasses the effects of "first-pass metabolism" whereby the concentration of the CBD is greatly reduced before reaching the systematic circulation. Even though no percentages are available, sublingual usage has a very high percentage of bioavailability.

There are many products available in the market such as gummies and pills that people find easy to obtain their CBD with. Unfortunately ingestion has the lowest percentages of bioavailability of all methods. CBD first passes through the 30 feet of the digestive system and then circulates through the liver. This is where the CBD is subject to the "first-pass metabolism" effect and the CBD is greatly reduced. With edibles, the bioavailability can be as low as 15%. The caveat is the effects of CBD may last longer. So if a gummy with 10mg of CBD is eaten, there could only be 1mg of CBD ingested.

In review, one of the most efficient methods for taking CBD is sublingually. The least efficient methods are through eating and drinking.