



DOSE EQUIVALENCY OF BIOABSORB™ FULL SPECTRUM HEMP OIL (CBD) COMPARED TO OTHER FULL SPECTRUM HEMP CBD OILS AND FORMULATIONS

Full Spectrum Hemp CBD Oil

Full spectrum hemp CBD oil is industrial hemp oil that has been refined and purified without destroying the medicinal and healthy phytocannabinoids, flavonoids and terpenes. CBD and THC are the most studied phytocannabinoids (also called "cannabinoids") but there are over 100 phytocannabinoids identified. To date, Cannabidiol (CBD) appears to be the most therapeutically useful and popular of all of the phytocannabinoids.

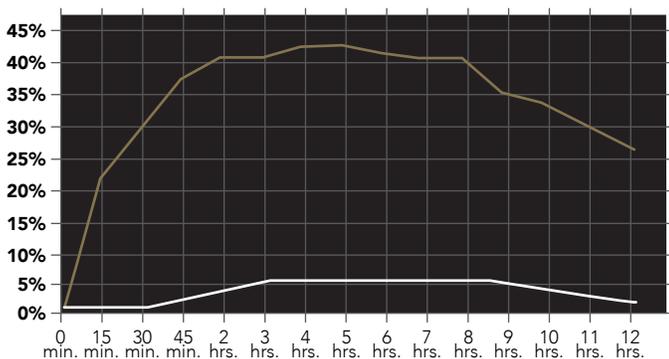
There have been no head-to-head human studies comparing BioAbsorb™ Full Spectrum Hemp Oil and standard full spectrum hemp CBD oil and no studies comparing it with emulsified or other delivery mechanisms. The suggestions below are based purely on the scientific data available as well as the human clinical trials that have been completed using BioAbsorb™. They are also based on observations of human use of over 6 million doses of BioAbsorb™.

In some countries including the EU, CBD oil or full spectrum hemp oil is expressed in % of active CBD in the bottle: 2%, 6% CBD content etc. A 15 ml bottle of 6% CBD would equate to approximately 900 mg of CBD oil. Using the same table below, this would equate to approximately 142 mg of BioAbsorb™.

BioAbsorb™ CBD (mg)	=	Standard CBD (mg)
1.6	=	10
3.2	=	20
7.9	=	50
15.8	=	100

Over 600% Greater Bioavailability

BioAbsorb™ vs Standard CBD Bioavailability in Plasma Blood*



Legend: BioAbsorb™ CBD % Plasma Blood Levels (dark line), Standard CBD (light line).
 *Non-Comparative Plasma blood levels prior to adjustment for blood volume.

The documented oral bioavailability of CBD is well documented at 6%, and the oral bioavailability of BioAbsorb™ Full Spectrum Hemp Oil is documented in two separate bioavailability studies at well over 38%. From these human studies, it can be estimated that BioAbsorb™ is over 600% more bioavailable than standard CBD oil. Using this data it can be suggested that 1 mg of BioAbsorb™ is equal to 6.34 mg of standard full spectrum CBD oil (See the Equivalency Table).

THC FREE and ISOLATES

One must also be cautious when comparing one product against another based on pure CBD content rather than full spectrum oil content. For example: A product containing CBD isolate (95-99% CBD) may have a label of 500 mg of CBD isolate but it is well documented that CBD isolate is much less effective in humans than full spectrum oil. There are also many CBD products claiming to be "Full Spectrum" and "THC Free." Because CBD and THC are both cannabinoids and are very closely related, they do not separate easily and if a product is completely devoid of THC it could mean that the oil has been stripped down to a CBD isolate. Comparing CBD isolate to a full spectrum CBD is not a 1:1 comparison and one must be very cautious.

Liposomes – The 80 Degree Rule

One of the biggest issues that face current methods for dispersing oil-based ingredients in water is stability. Temperature, polarity of water, the acidity of stomach acids, and other bioactive ingredients in product formulations can all cause instability. Liposomes are particularly susceptible to heat. Liposomes are extremely unstable over 80°F and in stomach acid. As a result of this instability, Liposomes have a very limited shelf life and must be stored and shipped refrigerated or in cool conditions. BioAbsorb™ Full Spectrum Hemp Oil is extremely stable in stomach acid, and in the heat and cold. BioAbsorb™ products can be used or stored at room temperature, in the refrigerator, or in the heat.

