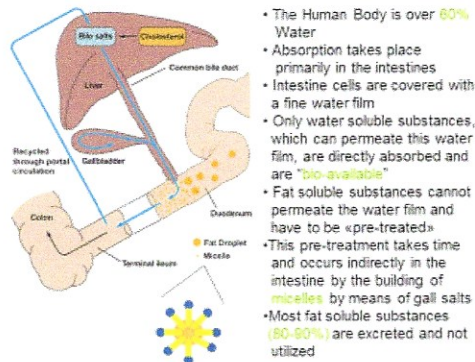


Purzorb™ vs. Liposome

Imitation vs. Actual water soluble compounds: There are many ways to make oil based ingredients water dispersible in water but the human body makes oil based ingredients bioavailable through a process called micellization. **Purzorb™** technology uses the same process that the human body uses to make oil based ingredients bio-absorbable. **Purzorb™** technology isn't an imitation of the body's way to utilize nutrients, **Purzorb™** mimics the body's natural process of absorption.

Why Micellization Technology is a Game Changer: It Mimics the Body's Natural Process of Absorption

pür health_{rx}



- The Human Body is over **80%** Water
- Absorption takes place primarily in the intestines
- Intestine cells are covered with a fine water film
- Only water soluble substances, which can permeate this water film, are directly absorbed and are "**bio-available**"
- Fat soluble substances cannot permeate the water film and have to be «pre-treated»
- This pre-treatment takes time and occurs indirectly in the intestine by the building of **micelles** by means of gall salts
- Most fat soluble substances (**80-90%**) are excreted and not utilized

Purzorb™ are micelles that mimic the body's way to make oil based ingredients bioavailable.

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Bio-Absorption

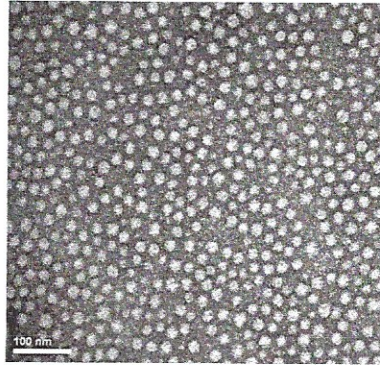
It is well documented that the bioavailability of Native CBD oil is only 6%. Many companies utilizing various emulsions and water dispersible technologies including Liposomes, will claim increased bioavailability of CBD oil 3-4 times that of normal CBD. This would equate to 18-24% of their CBD making into the blood stream. **Purzorb™** water soluble Hemp CBD oil has been proven to have over **85% absorption** through the intestinal tract. This means that your body can utilize almost all of the CBD that you ingest.

Stability

One of the biggest issues that face current methods for dispersing oil based ingredients in water is stability. "Nutrient Fall-out" is a term used to describe whether an ingredient stays in its ideal bioavailable form or "falls out" and lies at the bottom or top of a solution. The polarity of water, the acidity of stomach acids, other bioactive ingredients in product formulations can all cause fall-out for both micelles and liposomes. Liposomes are particularly susceptible to temperature and stomach acid. Variations of temperature and the acidity and contents of the stomach can have drastic effects on the

stability of a liposome. Liposomes have limited shelf life, temperature constraints and restrictions on when to take them. **Purzorb™** water soluble Hemp CBD oil can be used or stored at room temperature, in the refrigerator, or left in the trunk of the car on summer vacation.

Purzorb™ water soluble Hemp oil micelles are 22 nanometers in size and are stable over Long periods of time.



Purzorb™ micelles under a Electron microscope

Onset and Duration of Action

Another way to differentiate between imitation or actual bio-absorption, is the onset of action and duration of effect of a product. Native and even Liposomal CBD products require 60-90 minutes to reach their peak effect in the body and begin to drop in effect after 2-3 hours. **Purzorb™** water soluble Hemp oil has an onset of action and peak effect within 15 minutes of ingestion and remain at high levels in the body.

The reported *Onset of Action* of orally ingested **Purzorb™** CBD oil can occur within 15-30 minutes compared to traditional CBD oil which occurs between 60-90 minutes.

