



TAKE FISH, FLAX OR CBD OILS?

YOU MAY NOT BE GETTING WHAT YOU THINK.

3 BIG WAYS TO GET MORE

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YOU CAN ONLY BENEFIT FROM WHAT YOU CAN ABSORB

You're just not getting it.

While many of us may think we absorb all the nutrients in the supplements we take, that isn't necessarily true. The truth is, our bodies have a really hard time digesting and absorbing oils and fats, so we often miss out on the nutrients they contain. In fact, the harder we work to digest them, the more nutrition we lose along the way. Quality nutritional oils like fish, flax and CBD hemp oils are expensive, and you can only benefit from what you absorb. So you really want to get all the nutrients out of them that you can, right?

It's a long road to the bloodstream...

The key to getting nutrients is making sure they make it to the bloodstream. Since we're not great at absorbing oils, it's hard for us to reap the full benefits. When we consume oil or fat, our bodies automatically begin to break it down with digestive enzymes and bile in order to micronize and emulsify it (mix it with water and reduce it into smaller, easier-to-absorb micro-droplets). This allows the oil to more readily pass through the intestinal wall and enter the bloodstream, where we can fully benefit from the nutrients. Unfortunately, this arduous process doesn't just slow down absorption; it also whittles down the active ingredient—so you get less of the nutrients you were after in the first place. This is called the first pass effect.



The trick is to figure out how to reduce or eliminate this first pass effect so you actually get the nutrients you're after. And the great news is that there are a few ways to do this. Read on...

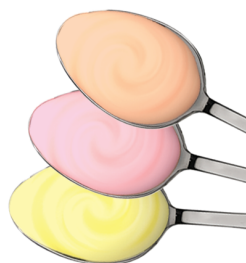
#1 EMULSIFY IT'S SERIOUSLY DELICIOUS

Emulsification is the easiest & most delicious way to absorb more.

Barlean's uses a proprietary process to pre-emulsify our Seriously Delicious products. This turns standard nutritional oils into creamy, delicious treats, but it's about way more than taste. Pre-emulsifying the oil takes the burden off your body and allows you to more quickly and efficiently absorb the nutrients into your bloodstream. That's because your body doesn't need to work as hard to internally micronize and emulsify them (and potentially lose valuable nutrients while doing so). Better absorption means better nutrition.

Three reasons emulsification is so great:

- 1 **You get more bang for your buck:** Emulsifying oils makes them three or more times more absorbable than standard nutritional oils or softgels.^{1,2}
- 2 **Say farewell to the dreaded burp back:** When you burp back oils, it's a sign your body is having a hard time digesting them. Emulsified oils are much easier to digest and absorb than traditional oils.
- 3 **It's Seriously Delicious:** Using a proprietary emulsification process, Barlean's is able to add amazing natural flavors to our nutritional oils. We've even turned fish oil into creamy, delicious treats that kids love. Hard to believe, but it's true!



Want to learn more? Go to: barleans.com/emulsification

1. Haug JJ, et al. Eur J Lipid Sci Technol. 2010 Dec; 113:137-145.
2. Raatz SK, et al. J Am Diet Assoc. 2009 Jun;109(6): 1076-81.

#2 GO SUBLINGUAL

Put it under your tongue.

Another way to mitigate the first pass effect is to take your nutritional oil in a way that doesn't include oral ingestion. One way to do that is by taking it sublingually—which is a fancy way to say putting it under your tongue.

Hold for at least 30-60 seconds. (Longer is better.)

If a non-emulsified oil (like traditional flax, fish or CBD hemp oil) is held under the tongue long enough, the mucus membranes in the mouth can absorb a higher percentage of the nutrients than if you'd just swallowed it. This is because taking a nutritional oil sublingually (under the tongue) allows the nutrients to completely bypass the digestive system and liver metabolism. The compounds can avoid being broken down by enzymes—and they reach the bloodstream more quickly.

Plan accordingly.

Keep in mind that while you may absorb more nutrients this way, if any of the oil leaks out from under your tongue and gets swallowed, then it will go through the standard digestive process and lose nutrients along the way. So, if you're going to take your oil-based supplement sublingually, you need to remember to hold the oil under your tongue for the full length of time. Otherwise, this method is not effective.



#3 TRY TPGS THE OIL & WATER MATCHMAKER

Geek out with more science behind better, faster absorption.

Barlean's CBD *More!* products are designed for better, faster absorption than traditional CBD hemp oils because our unique formula includes TPGS (d- α -tocopheryl polyethylene glycol 1000 succinate). TPGS is a natural, water-soluble derivative of vitamin E. It also has superpowers when it comes to digesting oils.

Oil and water don't mix...or do they?

TPGS works in two ways to aid in the absorption of nutritional oils. First, it helps solubilize and disperse the oil with water. TPGS molecules have two ends; one is lipophilic (meaning it attracts fats) and the other is hydrophilic (meaning it attracts water). This enables oil-based supplements to more easily disperse with water in your body because the presence of TPGS helps attract, rather than repel, water—as oil alone would do. Second, TPGS reduces the surface tension between oil and water, essentially minimizing the "fight" between them.

TPGS activates upon contact with water.

The moment our CBD *More!* formula encounters water (either inside or outside your body), the TPGS immediately goes to work preparing the oil molecules for absorption. This occurs before it even hits your stomach, making it immediately digestible and mitigating the loss of nutrients that occurs during the standard digestive process. The result? Better, faster absorption.



WE'VE GOT YOU COVERED

At Barlean's, we've got a whole line of Seriously Delicious emulsified products that offer better, faster absorption for nutritional oils like fish, flax, CBD, evening primrose, borage and more. They come in a wide array of flavors and formulas, including a full set of Omega-3 products for kids age 1 year and up. We also carry a line of sublingual CBD products. Finally, our CBD *More!* line is uniquely formulated with TPGS—all designed for faster, better absorption.

