NORDIC NATURALS®

The Truth About Fermented Cod Liver Oil

As a company that respects Norwegian tradition, as well as modern-day scientific research, Nordic Naturals finds the current conversation about fermented cod liver oil very interesting. Proponents say it is the "traditional" way to get omega-3s. We believe tradition is better served by boat-to-bottle manufacturing that preserves all of the healthy goodness of cod liver oil, without compromising its structural integrity.

Fermentation Facts

- Contains impurities
- Contains less omega-3 (DHA)
- Creates free fatty acids

Results in bad smell and taste

Makes fish oil **rancid**

Fermented CLO vs. Arctic CLO

FERMENTED COD LIVER OIL	NORDIC NATURALS ARCTIC COD LIVER OIL
28% TRIGLYCERIDE	**100%** TRIGLYCERIDE

The natural **TRIGLYCERIDE** form is the molecular form **BEST ABSORBED** by the body

FERMENTED COD LIVER OIL **57%** ***FREE FATTY ACIDS*** which indicate **RANCIDITY**

Nordic Naturals Arctic Cod Liver Oil™

Honoring tradition. Backed by science.

- Gently purified
- Natural levels of vitamin A
- Processed on the harbor
- Sustainably sourced
- 100% wild Arctic cod
- Nothing artificial
- Proven pure and fresh
- Full spectrum of fatty acids

FRESHER = BETTER

For pure, safe cod liver oil with all of its natural constituents present, Nordic Naturals Arctic Cod Liver Oil offers the best quality and value.

$44 FERMENTED COD LIVER OIL 8 OZ.

$24.95 NORDIC NATURALS ARCTIC COD LIVER OIL 8 OZ.

Committed to Delivering the World's Safest, Most Effective Omega Oils™

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Based on an analysis of a popular fermented cod liver oil product.

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Fermented Cod Liver Oil
A Closer Look

LET'S TALK TRADITION
Fermented cod liver oil is steeped in talk of tradition. Some say fermented cod liver oil was used in ancient times to make sure people got enough vitamin A and D during the long, cold, dark winters. Some argue that even for the toughest Vikings, fresh oils were preferred to fermented. It's difficult to find definitive proof of how cod liver oil came to be or exactly how it was made.

FERMENTATION PROCESS EXAMINED
What we know in modern times is that while fermentation can be a beneficial process for kombuchas and kefirs, it is not appropriate for all foods.

Fermentation turns carbohydrates into acids, alcohol, and/or gases. The microbial populations that initiate this change are what we now refer to as prebiotics and probiotics. In some cases, this consumption of live cultures can make a previously indigestible food palatable. Cod liver oil is not one of those foods.

Exposure to oxygen damages the delicate chains of fatty acids in the oil, weakening the double bonds that give them their unique properties. Ultimately, the oil becomes rancid.

Today, we have the technology to safely preserve the healthful constituents of cod liver oil.

TASTE MATTERS
One of the most interesting aspects of the fermented cod liver oil conversation is the talk about the taste. The nicest description we've heard is "fishy." A fishy smell and taste indicate that the oil is rancid and should not be consumed.

AN ANALYSIS: IS IT, OR ISN'T IT?
Nordic Naturals reviewed a third-party lab analysis of a popular brand of fermented cod liver oil. What we found was surprising!

Its structure did not look anything like traditional cod liver oil, which should be higher in omega-3 docosahexaenoic acid (DHA) and lower in omega-3 eicosapentaenoic acid (EPA).

The chemical analysis we reviewed showed the fermented cod liver oil was higher in EPA than DHA, which indicates it was not even cod liver oil to begin with.

UNSTABLE FATTY ACID PROFILE
The analysis showed that the fermented product was mostly free fatty acids—unstable molecules that can cause oxidative stress in the body, leading to an excess of free radicals.

Free fatty acids are an indication that the product is breaking down, that the oils are disintegrating, and that they are no longer in the natural triglyceride form.

The presence of such a large amount of free fatty acids indicates rancidity, which is what happens when fish oil is exposed to oxygen.

Freshness, which ensures product integrity and biological efficacy, may be the single most important quality of fish oil. Freshness makes for a more pleasant user experience. On the physiological level, fresh fish oil prevents free radical formation, which can oxidize LDL cholesterol and has been shown to have a negative effect on the human body.*

Bottom line: fresh is best.

Committed to Delivering the World's Safest, Most Effective Omega Oils™

* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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