



An Introduction to Nordic Naturals

Nordic Naturals Education Department

2017

NORDIC NATURALS®

Nordic Naturals Headquarters Today

85,000 sq ft

LEED® Gold Certified

Completed in 2011

200+ employees in Watsonville

50+ employees in San Diego

30+ employees in Norway



Nordic Naturals: Proven Effective

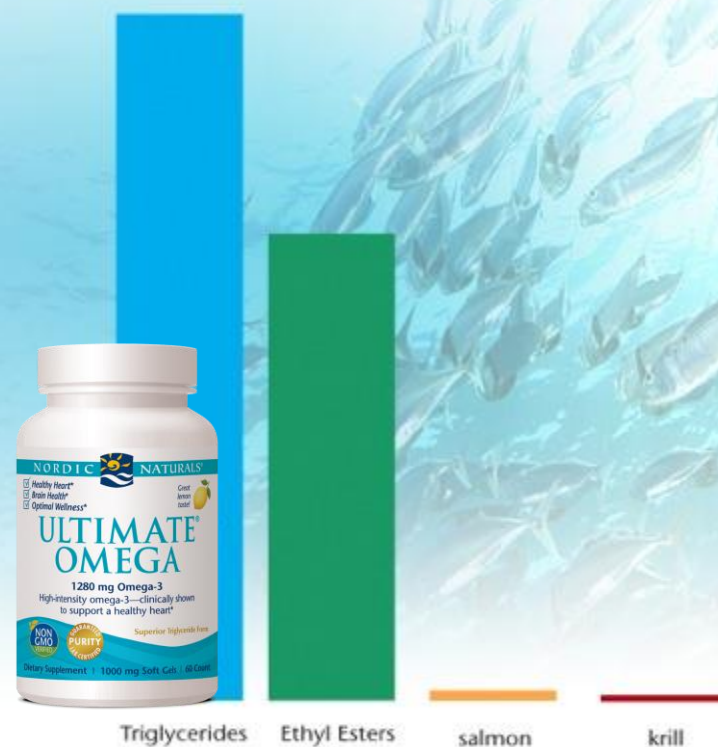
- Backed by more original research than any other brand - 48 published studies, with over 40 studies in progress.
- Leading research institutions such as UCLA, Harvard, Mass General Hospital, UCSF, Emory University, and OHSU have chosen Nordic Naturals for their Omega-3 studies.
- All products offered in the **superior triglyceride form for better absorption**
- Scientifically documented to **maximise absorption and effectiveness** up to 70% more than ethyl ester omegas
- Routinely selected by major universities around the world, with **multiple studies funded by the National Institutes of Health (NIH)** thanks to our exceptional quality and manufacturing standards



Backed by Original Research

Results of a study on omega-3 absorption show superiority of triglyceride-form omega-3 product

- 47% more bioavailable than ethyl ester fish oil
- 227% more bioavailable than salmon oil
- 382% more bioavailable than krill oil



Website Dedicated to Omega-3 Research

OMEGA-RESEARCH.COM
your fish oil research library

Search

by: Text PubMed No. Date (mm/yyyy)

▶ SPANISH LANGUAGE VERSION

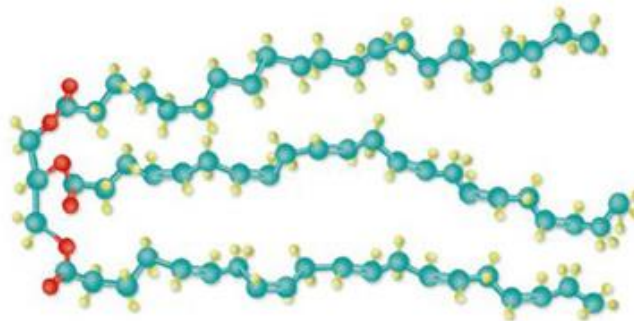
▶ NORWEGIAN LANGUAGE VERSION

CONTACT US

HOME



- Cancer Research
- Children's Health and Development
- Diabetes
- Environmental Concerns
- Female Health and Reproduction
- Immune Health
- Inflammation
- Lifestyle and Healthy Living
- Mental/Neurological Health
- Organ-specific/Physiology
- Plant-Based GLA (Borage) Benefits
- Plant-Based Omegas
- Purity/Safety Considerations
- Somatosensory System
- Veterinary Research / Canine & Feline & other
- Vitamin A Research
- Vitamin D Research



Omega-Research.com was created by a leading fish oil manufacturer to facilitate and educate healthcare professionals and individuals interested in using fish oils to improve health.

Using **Omega-Research.com**, you can stay up to date on the ground-breaking research in areas such as heart disease, diabetes, cancer prevention, reproduction, children's health and the many aspects of health affected by chronic inflammation.

With over 8,000 clinical trials, Omega-3 fish oil is one of the most researched substances in modern medicine.

Latest Reports

February 9, 2017

JCII - Fish Oil Asthma Benefits May be Blocked by Medication

January 25, 2017

PLEFA - Low Omega-3s in Middle-Aged Women Related to Increased CVD Risk

January 25, 2017

PLEFA - Dynamic Interactions of Omega-3 And Omega-6 FA Nutrients

January 15, 2017

BBI - Effects of DHA on the Microbiome and Behavior



Nordic Naturals

Core Values

- Exceptional Fish Oil
- Social Responsibility
- Research & Innovation

NORDIC NATURALS®

Vertical Integration

WE MANAGE EVERY STEP OF THE PROCESS
FROM BOAT TO BOTTLE



100%
Wild-Caught Fish



One of the Most Advanced
Manufacturing Plants
in the World



Proven Pure
Proven Effective

Social Responsibility

- We Care for the Planet and Our Global Community
- Socially Responsible Practices
 - *All waste is reused & repurposed – Biofuel, Hydropower & Steam*
- No Shortcuts



Sustainable Practices

SOURCING

All of Nordic Naturals' products are made exclusively from 100% wild-caught fish, all from healthy stocks.

- Arctic Cod (Skrei)
 - Sourced from Arctic Norway outside of Lofoten
- Anchovies & Sardines
 - Sourced from the Pacific & Atlantic Oceans

FISHING PRACTICES

- Regulated Fishing
- By-catch Prevention
- Habitat Protection
- Marine Pollution Prevention



Caring for the Coast

- Work with independent fishermen
- 100% wild caught
 - Arctic Cod
 - Pacific and Atlantic sardines & anchovies
- Friend of the Sea Certified
 - Certifies sustainable fisheries and aquaculture
 - Protects sea life & habitat
 - Non-profit, non-governmental
 - Small scale fishing makes up 50% of certifications



Technological Expertise



THE ART OF FISH OIL PROCESSING

OIL EXTRACTION



Boiling and Pressing



Raw
Fish Oil

PURIFICATION

Stripping

Removal of over 210 potential impurities to meet strict European Pharmacopoeia guidelines



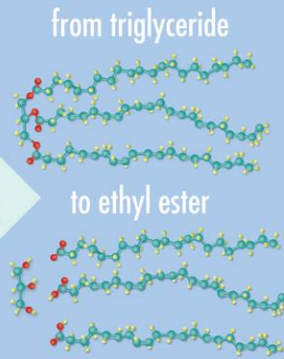
Purified
Fish Oil

IMPURITIES

Note:
EVERY fish oil manufacturer needs to go through a stripping process to extract impurities and meet guidelines for purity. As this process requires heat from 200–300° C, technical expertise and the complete absence of oxygen are crucial.

MEDIUM CONCENTRATION

Cleaving off fatty acids — binding them to alcohol to allow for EPA+DHA concentration to ~50%



TECHNOLOGIES

- **Molecular distillation** — molecularly selecting EPA+DHA fatty acids
- **Cool-down fractionation** — freezing to remove short-chain crystallized molecules. Limitation: concentration level and waste
- **Enzymatic processing** — segregation of longer carbon chains (EPA+DHA)

KEY TO QUALITY

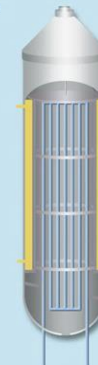
- Minimize heat
- Oxygen-free environment
- Technological expertise

HIGH CONCENTRATION

Further concentration of fish oil to yield EPA+DHA concentration over 90%

TECHNOLOGIES

- Molecular concentration
- Enzymatic processing
- CO₂ processing



WHICH TECHNOLOGY IS PREFERRED?

As each technology can produce both low and high quality oil, third-party product analysis focusing on freshness and purity is the ultimate documentation when choosing a superior product.

Ask your supplier for lab analysis.

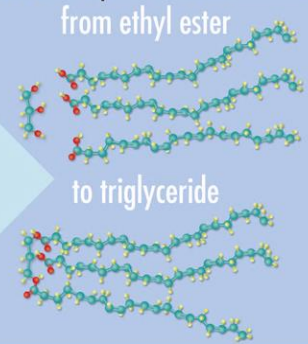
KEY TO QUALITY

- Overall processing control
- Technological expertise

MEDIUM/HIGH CONCENTRATION TRIGLYCERIDES

Added Step

Fatty acids are reattached to glycerol backbone forming a natural triglyceride dominated by EPA+DHA in the center position of the molecule.



98% of fats found in nature and consumed by humans are in natural triglyceride form.

HIGH QUALITY FISH OIL

- Uses high quality raw materials
- Has exceptional purity values documented by third party
- Has NO fishy taste or odor

KEY TO QUALITY

- Technological expertise
- Dedication to quality
- 93% conversion to true triglycerides



KEY TO QUALITY

- Fresh Raw material
- Small fish — high in omega-3s with sustainable, short reproductive cycles
- Minimize heat
- Oxygen-free environment to eliminate oxidation

KEY TO QUALITY

- Technological proficiency
- Minimize heat
- Maximize vacuum
- Oxygen-free environment to eliminate oxidation
- Removal of minerals and trace elements (iron, copper, etc.)

Fish Oil Processing Steps 1-3

▪ **Step 1: Extraction**

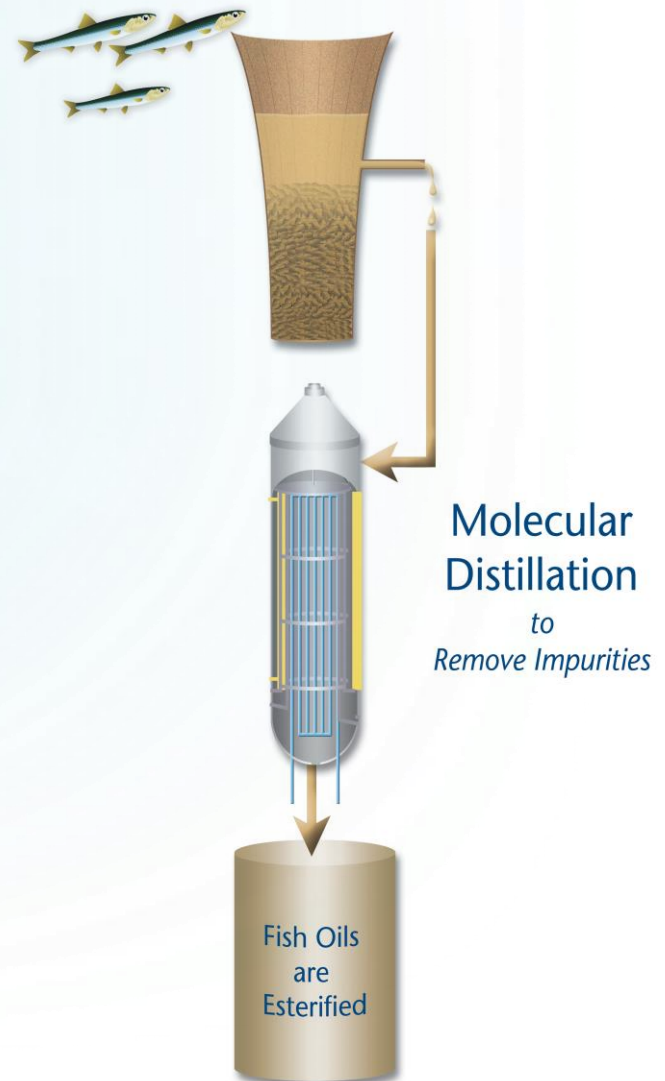
- From the first step, Nordic Naturals insists on an **oxygen-free**, nitrogen-rich processing environment to preserve the natural constituents of our oils
- Ensure our oils are protected from oxidation that causes fishy smell and taste

▪ **Step 2: Purification**

- **Molecular distillation** uses very low heat to **gently purify our fish oil** of heavy metals, PCBs and other contaminants
- **All quality manufacturers employ this technique** prior to any chosen concentration method
- For Nordic Naturals' non-concentrates, this is the final step

▪ **Step 3: Esterification**

- For Nordic Naturals' concentrated products, fish oil must be converted from natural triglycerides to ethyl esters, through a process called esterification



Fish Oil Processing Steps 4-5

■ **Step 4: Concentration**

- Purified fish oil is concentrated to yield high percentages of the omega-3s EPA and DHA
- **Other brands use** enzymatic or **CO₂** concentration techniques
- **Nordic Naturals uses single-step molecular distillation** because it yields the best results

■ **Step 5: Re-esterification**

- After concentration, our purified oils are carefully returned to their **superior triglyceride form** - the only form in which they exist in fish
- Few other brands take this extra step, preferring instead to market their products as ethyl esters
- By re-esterifying oils in phases, Nordic Naturals is able to deliver **over 90% triglycerides** - far beyond those of other brands



Oxygen Free Bottling and Encapsulation


- Under the Same Nordic Roof!
- Patented Processing
- One of a kind capsules
- Each bottle tested over 80x's for contaminants



Certificate of Analysis: Exceptional Freshness Levels

- Independent lab tested for PCBs, heavy metals, dioxins, and other contaminants
- TOTOX Value = PV x 2 + AV
- Customers are invited to request a certificate of analysis





Certificate of Analysis

Product: Ultimate Omega 60ct	Bulk Batch Nr: 121796	Bottle Lot Nr: 1285-E3
Manufacture Date: January, 2013	Product Storage: Cool dry place, away from sunlight	Shelf Life: Three years from manufacture date

Oxidation	Test Method	Limits	Assay Result*
ACID	AOCS Cd 3d-83	< 3.0 mg KOH/g	0.2 KOH/g
PEROXIDE	AOCS Cd 8b-90	< 5 meq/kg	3.51 meq/kg
TRUE ANISIDINE VALUE	NDI Proprietary	> 70%	81.00%

Heavy Metals	Test Method	Limits	Assay Result*
ARSENIC	USEPA 305.1, 200.7, 200.8	NMT 0.1 mg/kg (ppm)	< 0.05 mg/kg (ppm)
CADMIUM	USEPA 305.1, 200.7, 200.8	NMT 0.1 mg/kg (ppm)	< 0.01 mg/kg (ppm)
LEAD	USEPA 305.1, 200.7, 200.8	NMT 0.1 mg/kg (ppm)	< 0.01 mg/kg (ppm)
MERCURY	USEPA 245.6 (Cold Vapour AAS)	NMT 0.1 mg/kg (ppm)	< 0.005 mg/kg (ppm)

Environmental Toxins	Test Method	Limits	Assay Result*
POLYCHLORINATED BIPHENYLS (PCBs)	USEPA 1668 Revision A	NMT 9.0 mg/kg (ppm)	0.11 mg/kg (ppm)
DIOXIN-LIKE PCBs (non-ortho & mono-ortho)	USEPA 1668 Revision A	NMT 1.0 pcg/g (ppt)	0.008 pcg/g (ppt)
DIOXINS & FURANS (WHO TEQ)	USEPA 1613	NMT 2.0 pcg/g (ppt)	0.201 pcg/g (ppt)

Microbial Analysis	Test Method	Limits	Assay Result*
PLATE COUNT	USP 31 (2021)	Negative in <1000 cfu/g	Negative
STAPHYLOCOCCUS AUREUS	USP 31 (2022)	Absent	Absent
ESCHERICHIA COLI	USP 31 (2022)	Absent	Absent
SALMONELLA	USP 31 (2022)	Absent	Absent
PSEUDOMONAS AERUGINOSA	USP 31 (2022)	Absent	Absent
YEAST & MOLD	USP 31 (2021)	Negative in <100 cfu/g	Negative

Fatty Acid Profile	Test Method	Label Claim (mg)	Assay Result*
EICOSAPENTAENOIC ACID (EPA)	AOCS CE 1b-89 (modified)	650 mg	674 mg
DOCOSAHEXAENOIC ACID (DHA)	AOCS CE 1b-89 (modified)	450 mg	496 mg
TOTAL OMEGA-3	AOCS CE 1b-89 (modified)	1280 mg	1338 mg

*Third party test results by Nutrasource Diagnostics, Inc.

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Committed to GMO Free Products

- Eurofins Scientific Genescan program
 - *Founded in 1987*
 - *Global industry leader in GMO testing*
- Ensures quality & safety of products
 - *Competes with strict European standards*
 - *State-of-the-art technologies*
- World leader in analysis of fatty acids
 - *ISO accredited laboratories*



Family-Owned Forever!

- CEO and Founder Jar Opheim
(with his children)
- Over 20 Years of Expertise
- Revolutionized Industry
- Vertical Integration
 - Management of every step
 - Ownership of production facilities
 - *Fish oil manufacturing*
 - *Bottling & encapsulating*
 - *Gummy technology*



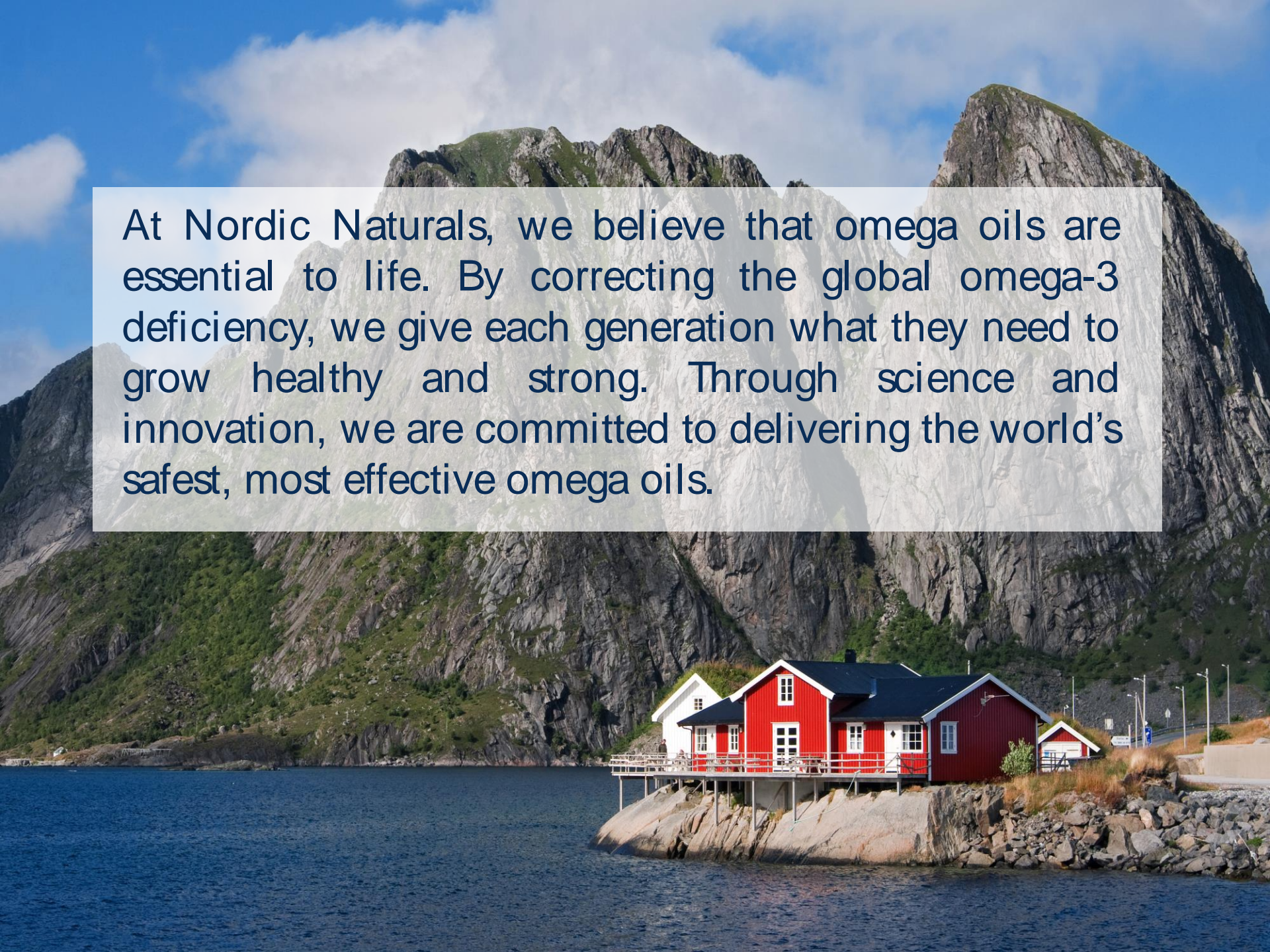
Philanthropic Endeavors...Giving Back!

Nordic Naturals' dedication to a healthy world unites values with action. Our philanthropy supports organizations that work to make our world a better place to live.

These have included:

- American Pregnancy Association
- Kids in Need Foundation
- Cookies For Kid's Cancer
- Give2theTroops
- Save our Shores
- Long Marine Lab
- Paws for Veterans
- Second Harvest Food Bank
- Inspire Health Canada
- Toys For Tots
- United Way
- Vitamin Angels
- Wild Cat Sanctuary





At Nordic Naturals, we believe that omega oils are essential to life. By correcting the global omega-3 deficiency, we give each generation what they need to grow healthy and strong. Through science and innovation, we are committed to delivering the world's safest, most effective omega oils.



The Nordic Naturals Product Choices

NORDIC NATURALS®

Arctic Cod Liver Oil™ *The Fish Oil That Started it All*

- Made from 100% wild Arctic cod (Skrei)—no other fish oils or synthetic additives are ever used
- Supports overall well-being
- Also available with 1000 I.U. extra added Vitamin D to assist with maintaining optimal Vitamin D levels



EPA.....340 mg
DHA....510 mg
(1 tsp)

EPA.....340 mg
DHA...510 mg
Vit D...1000 I.U.
(1 tsp)

2015 Clean Choice Award, *Clean Eating Magazine*

2005 #1 Fish Oil Brand out of top 10 in Norway; *Norwegian Magazine Food & Health*

Concentrated Support For The Whole Body

High-Intensity Focused Formula

- Supports general well-being
- May support healthy skin
- Great for meeting the additional needs of conditions such as pregnancy

**BEST
SELLER!**



EPA.....650 mg
DHA.....450 mg
(2 soft gels)

EPA.... 1450 mg
DHA... 1060 mg
(1 tsp)

Research shows Ultimate Omega® provides greater increase in blood levels of EPA and DHA.†

47% more effective than ethyl ester fish oil

227% more effective than salmon oil

382% more effective than krill oil

† Source: *Lipids in Health and Disease*, 2014

The Perfect Maintenance Formula

Wholesome Balanced Omega-3

- Supports general well-being & good health
- Surpasses daily expert recommended amount in each serving
- Experts agree adults need a minimum of 500 mg EPA + DHA daily



EPA...330 mg
DHA...220mg
(2 soft gels)

EPA...745mg
DHA..500 mg
Vit D 1000 I.U.
(per tsp)

Concentrated Source of Omega 3 EPA

Encourages healthy cell function

- May support healthy joint function
- Assists in maintaining a healthy cardiovascular system
- May help regulate inflammation & healthy immune function



EPA...850mg
DHA...200mg
(2 soft gels)

The Perfect Balanced Combination

Omega-rich synergistic blend offering:

- Balanced support for healthy
 - *Heart*
 - *Brain*
 - *Joints*
 - *Skin*
 - *Optimal well-being*
- Health-supporting omegas 3, 6 & 9
 - *EPA & DHA*
 - *GLA from organic borage oil*



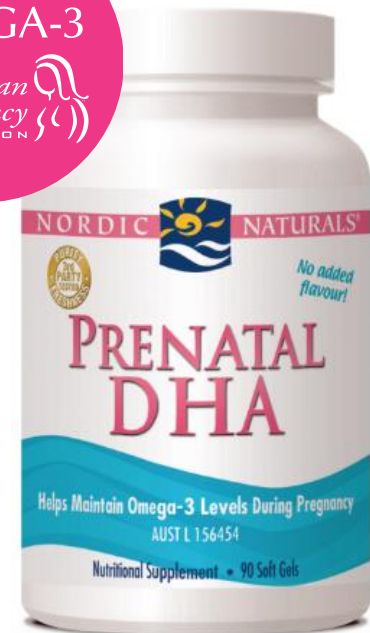
EPA...270 mg
DHA..180 mg
GLA.....70 mg
(2 soft gels)

EPA.....610 mg
DHA...405 mg
GLA....170 mg
(per tsp)

Prenatal DHA: Essential For Healthy Development

For both mums & bubs!

- Supports brain & nervous system function & development
- Ultra pure unflavoured fish oil rich in DHA
- Small easy-to-swallow soft gels
- 450mg DHA & 400 I.U. Vit D
 - *Per 2 soft gels*



DHA: Great For Young Children

- May support healthy cognitive development & vision
- Made from 100% wild Arctic Cod
- Children's yummy strawberry-flavoured
 - *Liquid or chewable soft gels*
- Baby DHA
 - *Manufactured especially for Australia*



12 + months





Thank You!

Disclaimer: This information is for educational purposes only. Current and peer-reviewed research is cited. It is not intended as medical advice of any kind. The educational information in this document is not intended to diagnose, treat, or cure any disease, nor has this document been reviewed or approved by the FDA.

NORDIC NATURALS®