

How Much EPA+DHA to Achieve an Omega-6/Omega-3 Ratio of 1:1 in the Tissue HUFA?



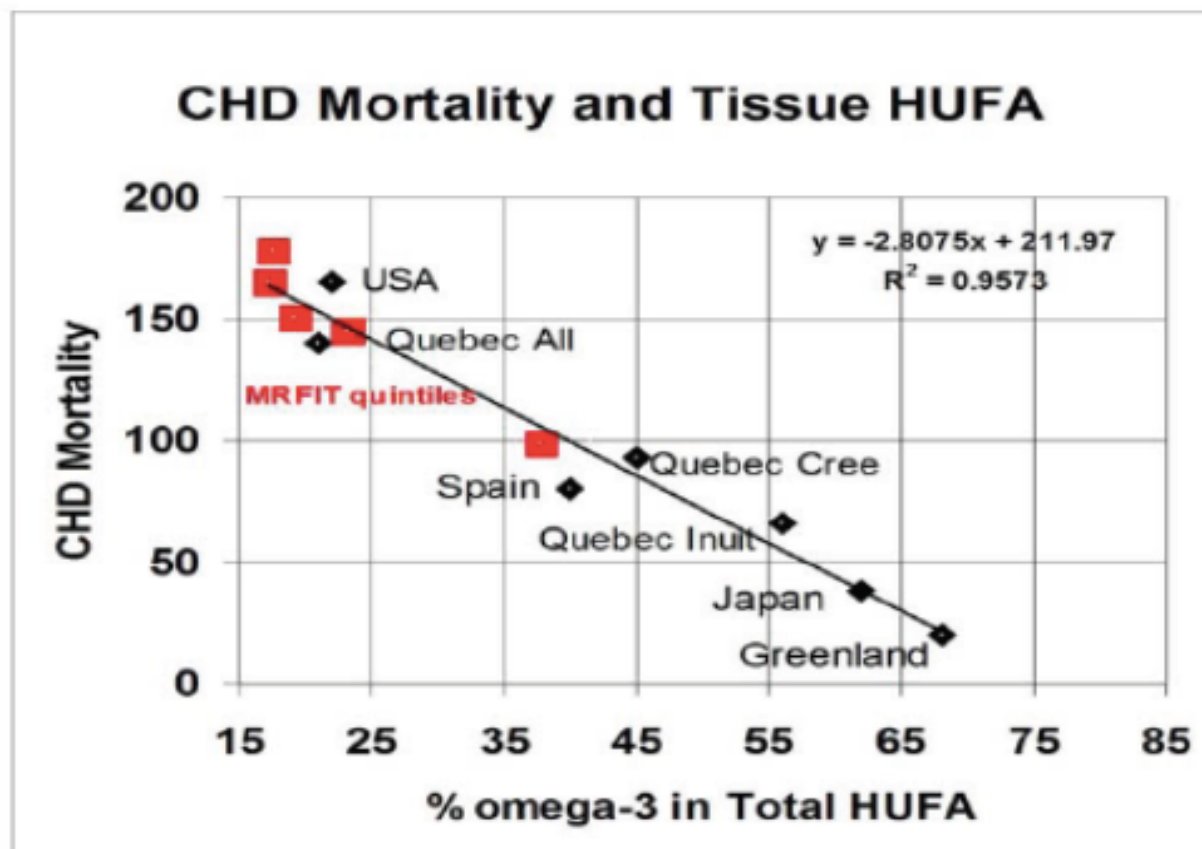
NORDIC[®]
NATURALS



Try to get at least 1000-2000mg of EPA and DHA and 4000mg of ALA per day with fish, fish oil and flax. Avoid omega 6 rich oils (soybean, corn, safflower) and foods made with them.

Omega 3 in HUFA = **35 %** US Average = 24%

OPTIMAL > 50% Your value indicated by the purple star on the graphic below.



Total Omega 3 = **8.4 %** US Average 4.8%

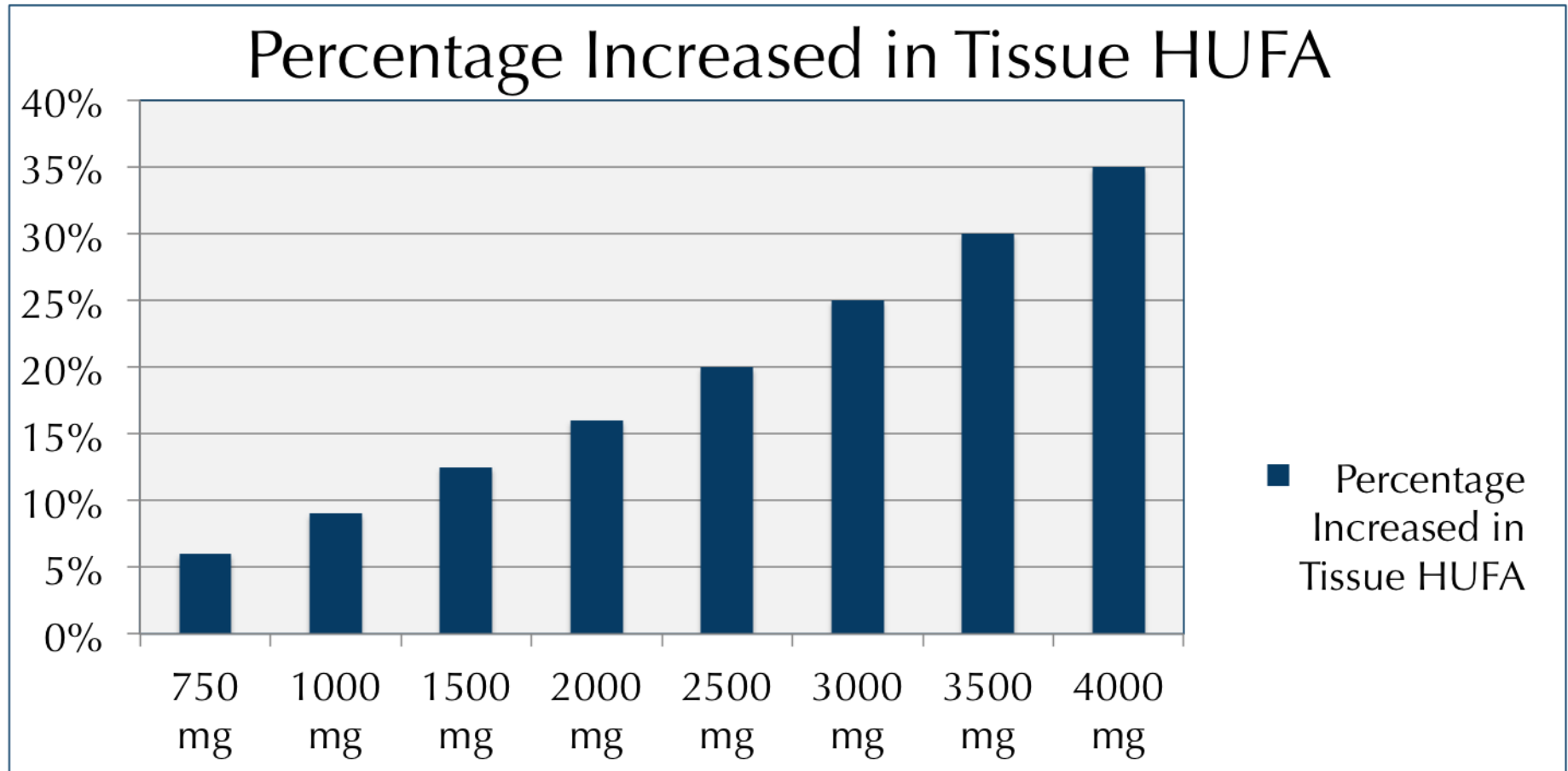
Desired >9%: correlates with a 90% risk reduction for sudden cardiac death (Albert et al)

How Much EPA+DHA to Raise Omega-3 in the Tissues?

- ◆ An adult who consumes a 2000-kcal diet needs 750mg of Omega-3 EPA+DHA per day to raise Omega-3 levels in tissue by 7%
- ◆ 1500mg Omega-3 EPA+DHA per day raises Omega-3 levels 14%
- ◆ 3000mg Omega-3 EPA+DHA per day raises Omega-3 levels 28%



How Much EPA+DHA to Raise Omega-3 in the Tissues?





Contents lists available at ScienceDirect

Prostaglandins, Leukotrienes and Essential Fatty Acids

journal homepage: www.elsevier.com/locate/plefa



Cardiovascular disease prevention and treatment

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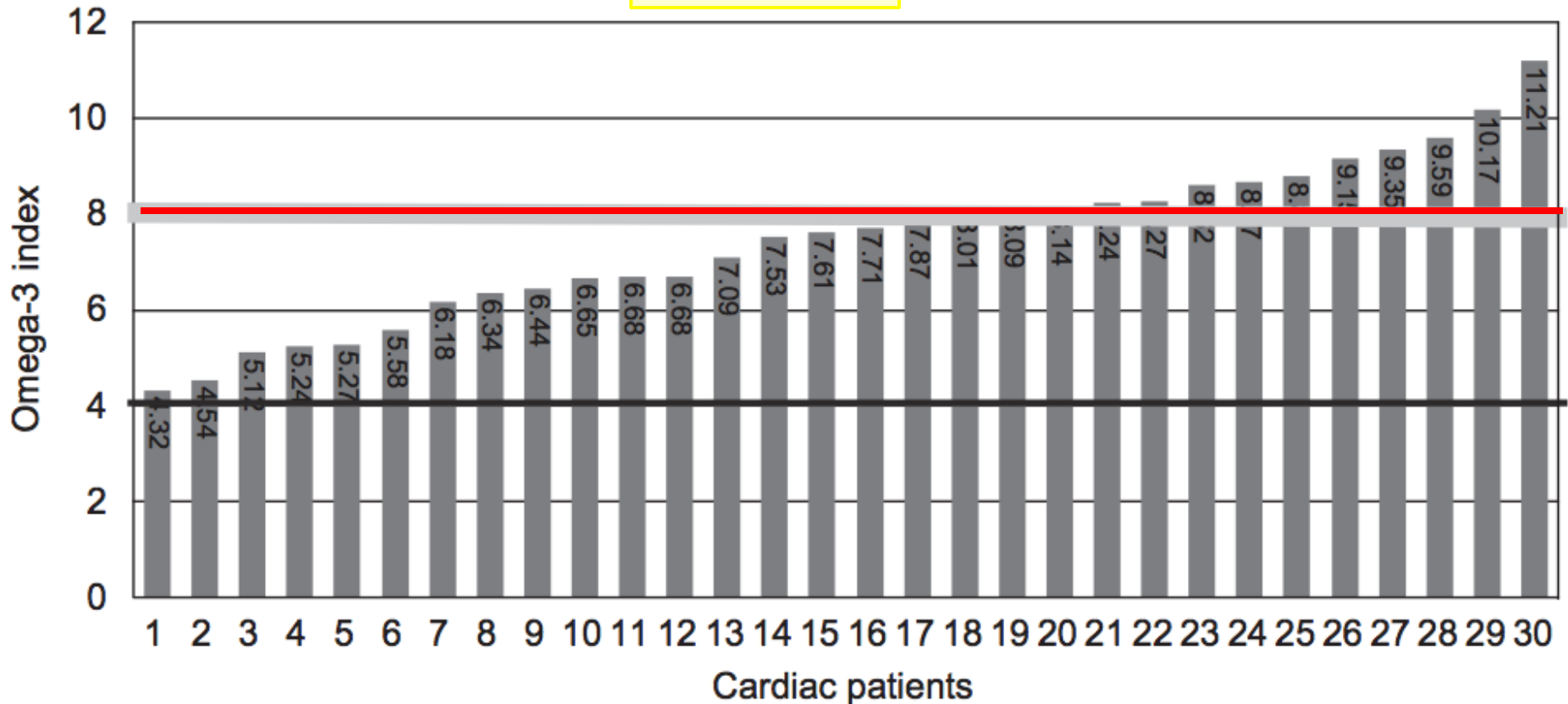
ABSTRACT

The incidence of fatal and non-fatal cardiovascular disease (sudden cardiac death (SCD), myocardial infarction, others) varies, depending on conventional risk factors. However, in Western countries, like the US or Germany, incidences of fatal and non-fatal cardiovascular disease are far higher than in countries like Japan. In the present article, these differences are discussed and related to eicosapentaenoic acid (C20:5omega-3 or C20:5n-3; EPA) and docosahexaenoic acid (C22:6omega-3; DHA). Dietary intake of EPA and DHA and a number of other factors determine levels of EPA and DHA in an individual—best assessed as the omega-3 index, defined as the percentage of EPA and DHA in red cells, and analyzed in a standardized fashion. A review of the literature, expanded by measurements of the omega-3 index, indicates that the risk of sudden cardiac death correlates inversely with the omega-3 index. For persons with an omega-3 index <4%, risk is tenfold, as compared to persons with an omega-3 index >8%. A similar, less-pronounced, correlation exists for non-fatal cardiovascular disease. EPA and DHA have anti-arrhythmic and anti-atherosclerotic mechanisms of action. In large-scale

Evaluation of Fatty Acid Status

1000mg EPA/DHA per day **Have Different Effects**

Omega-3 Index in 30 **cardiac patients** using an omega-3 supplement

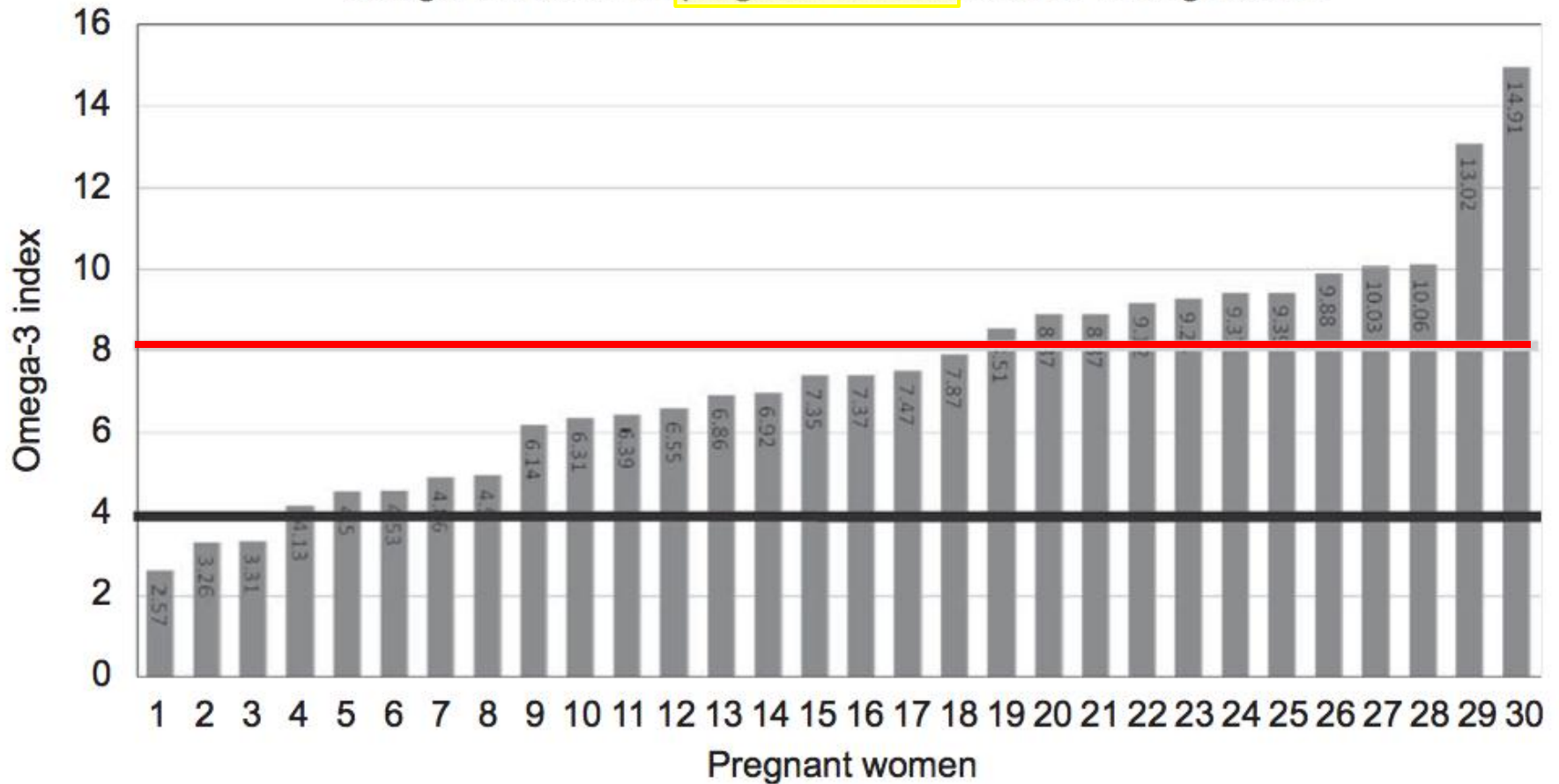


Omega-3 Index “8” = 50% in RBC membrane

Evaluation of Fatty Acid Status

1000mg EPA/DHA per day **May Not Be Enough**

Omega-3 index in 30 **pregnant women** at week 12 of gestation

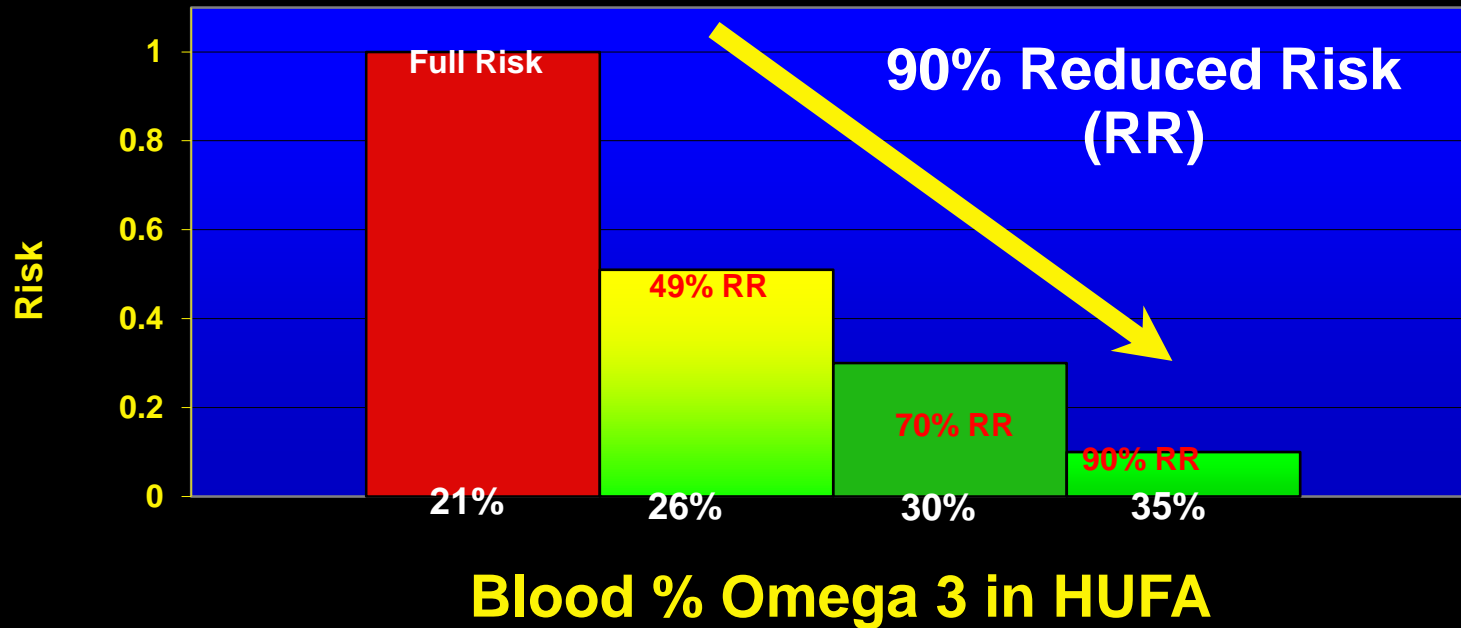


Omega-3 Index “8” = 50% in RBC membrane

Do you want a 90% Reduction in Risk?

Risk of Primary Cardiac Arrest and Omega 3 Blood Levels

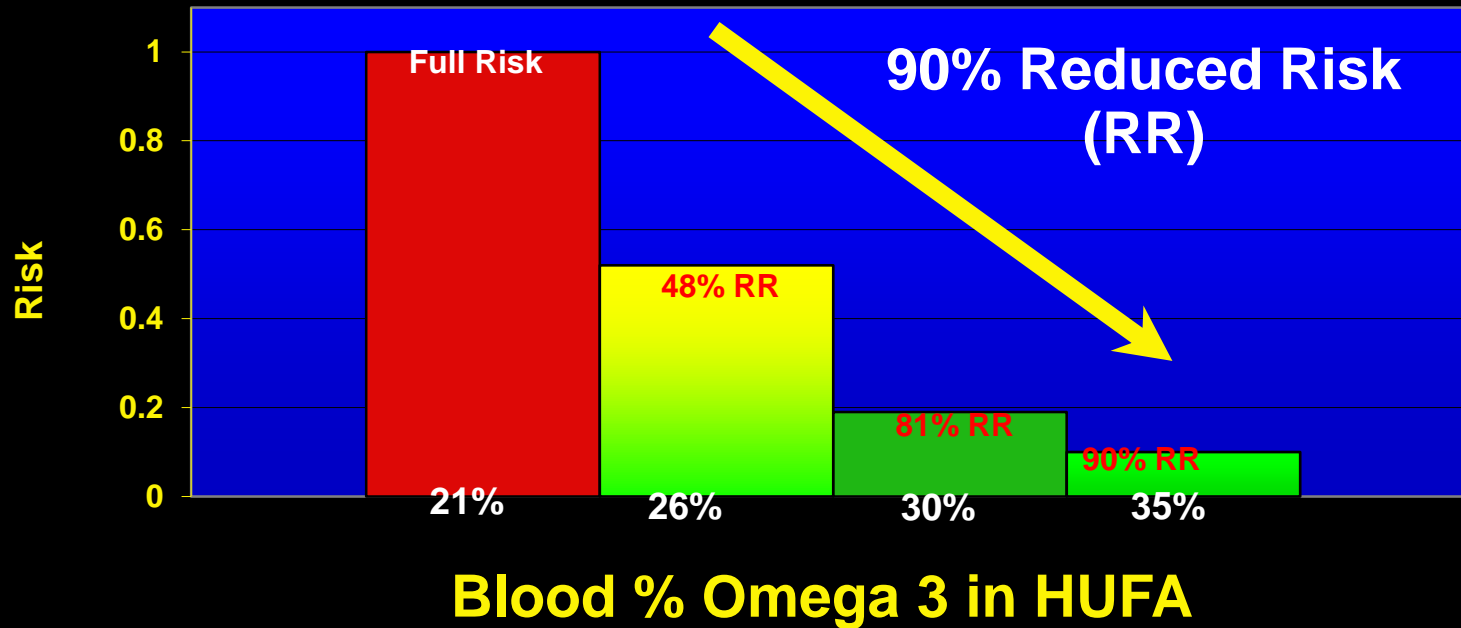
JAMA Siscovick et al; 1995 274:1363-1367



How Much Risk Reduction do you Want?

Risk of Sudden Cardiac Death and Omega 3 Blood Levels

New England Journal of Medicine: Albert et al: 2002:346:1113



Dose Required to Achieve 3000mg EPA+DHA: Omega-3 Soft Gels



**11 Soft Gels =
3025mg EPA+DHA**

Retail Price: \$17.95
Cost Per Serving: \$0.60
(550mg EPA+DHA)
Cost 100mg EPA+DHA: \$0.11
**Cost Per 3000mg EPA+DHA:
\$3.26**

Dose Required to Achieve 3000mg EPA+DHA: Omega-3 Liquid



**2 1/4 Tsp =
3094mg EPA+DHA**

Retail Price: \$25.95
Cost Per Serving: \$0.54
(1375mg EPA+DHA)
Cost 100mg EPA+DHA: \$0.04
Cost Per 3000mg EPA+DHA:
\$1.18

Dose Required to Achieve 3000mg EPA+DHA: Arctic Cod Liver Oil



**2^{3/4} Tsp =
3025mg EPA+DHA**

Retail Price \$25.95
Cost Per Serving \$0.54
(1100mg EPA+DHA)
Cost 100mg EPA+DHA \$0.05
Cost Per 3000mg EPA+DHA
\$1.47

Dose Required to Achieve 3000mg EPA+DHA: Kenai Wild Alaska Salmon Oil

**1.05 Tbsp =
3000mg EPA+DHA**



Retail Price \$29.95
Cost Per Serving \$0.62
(950mg EPA+DHA)
Cost 100mg EPA+DHA \$0.07
Cost Per 3000mg EPA+DHA \$1.97

Dose Required to Achieve 3000mg EPA+DHA: Ultimate Omega Soft Gels

**6 Soft Gels =
3300mg EPA+DHA**



Retail Price \$27.95
Cost Per Serving \$0.93
(1100mg EPA+DHA)
Cost 100mg EPA+DHA \$0.08
Cost per 3000mg EPA+DHA \$2.54

Dose Required to Achieve 3000mg EPA+DHA: Ultimate Omega Liquid



**1.09 Tsp =
3000mg EPA+DHA**

Retail Price \$71.95
Cost Per Serving \$1.50
(2752mg EPA+DHA)
Cost 100mg EPA+DHA \$0.05
Cost per 3000mg EPA+DHA \$1.63

Dose Required to Achieve 3000mg EPA+DHA: Ultimate Omega Xtra Soft Gels

5 Soft Gels = 3000mg EPA+DHA



Retail Price \$31.95
Cost Per Serving \$1.07
(1200mg EPA+DHA)
Cost 100mg EPA+DHA \$0.09
Cost per 3000mg EPA+DHA
\$2.66

Dose Required to Achieve 3000mg EPA+DHA: Ultimate Omega Xtra Liquid



**1 Tsp =
3000mg EPA+DHA**

Retail Price \$79.95
Cost Per Serving \$1.67
(3000mg EPA+DHA)
Cost 100mg EPA+DHA \$0.06
Cost per 3000mg EPA+DHA \$1.67



Objectively Assessing Omega-3 Fish Oils

NORDIC NATURALS®



Vitenskapskomiteen for mattrygghet
Norwegian Scientific Committee for Food Safety

Description of the processes in the value chain and risk assessment of decomposition substances and oxidation products in fish oils

Opinion of Steering Committee of the Norwegian Scientific Committee for Food Safety

Date: 19.10.2011

Proven Quality Fish oil is Critical for Proper Human Physiological Function

- ◆ Currently, there is no mandated international, European or national legislation on standards for origin, quality and/or composition of marine n-3 oils and their concentrates for use as food/food supplementation
- ◆ The content of decomposition substances, oxidation, and process-generated substances in crude fish/cod-liver oil is dependent upon:
 - ◆ *Freshness*
 - ◆ *Composition of the raw material*
 - ◆ *Processing parameters such as time, pressure and temperature*
- ◆ **Therefore, further refinement is essential in production of food supplements**

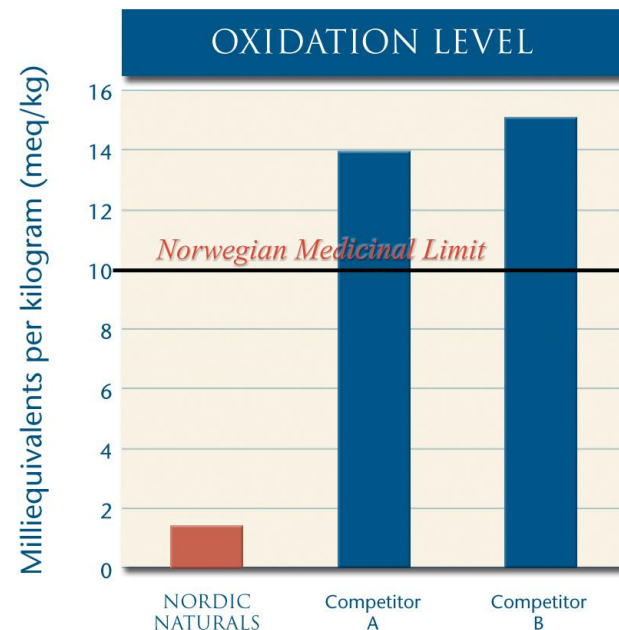
Trust a Proven Source: Request Proof

- ◆ Detailed descriptions of the industrial processing line and the influence of different processing steps and parameters on product quality/content of decomposition substances, oxidation products and process-generated substances are not available in scientific literature.
- ◆ You Need A Safe, Effective, and Proven Source.
- ◆ There is some concern related to regular consumption of oxidized marine oils.
- ◆ Long-term exposure to dietary lipid peroxides may also have negative effects locally in the gastrointestinal tract.
- ◆ It is desirable that the concentration of primary oxidation products (peroxides) remains as low as possible
- ◆ Demand a 3rd party, independent test of purity and potency!



The Lower The Oxidation - The Better!

- ◆ Feeding highly oxidized oils to animals clearly has negative health effects, both on the *macroscopic* level (such as changes in body weight and organ indices) and at the *biochemical* level with changes in markers of oxidative stress, organ damage and change in thyroid hormone metabolism and expression of PPARα responsive genes.
- ◆ However, it is difficult to say at which doses the effects appear, since the measurements of oxidation used in the studies are not quantitative. Because the whole oxidized oil contains a complex mixture of oxidation products and process generated products it is also not possible to say which products cause the adverse health effects.



What about Oxidation?

Previous assessments on the safety of n-LCPUFAs referred to mixtures of EPA and DHA (DPA was not explicitly mentioned) and were primarily based on a large number of human studies. The Panel considers the available human studies available.

The majority of different human studies generally used EPA and DHA as supplements; or more specifically, as a source of EPA and DHA, or with DPA.

Long-term human studies on EPA and DHA combined up to about 5 g/day do not increase the risk of spontaneous bleeding episodes or bleeding complications even in subjects at high risk of bleeding (e.g. taking acetylsalicylic acid or anti-coagulants).

“...Supplemental intakes of EPA and DHA consumed either alone or in combination at doses up to about 5 g/day for up to 16 weeks do not induce changes in lipid peroxidation which might raise concern in relation to CVD risk, *as long as the oxidative stability of*

Long-term supplemental intakes of EPA and DHA combined up to about 5 g/day do not increase the risk of spontaneous bleeding episodes or bleeding complications even in subjects at high risk of bleeding (e.g. taking acetylsalicylic acid or anti-coagulants).

Consumer Lab – Omega-3 Results

| Product Name Labeled Amount of EPA/DHA per Unit and Suggested Daily Dose on Label Click on "Ingredients" for Full Listing | Company (Dist. = Distributor Mfd. = Manufacturer) | Amount of EPA and DHA (mg) Per Recommended Daily Serving (Based on Label) | -- TEST RESULTS -- (See How Products Were Evaluated) | | | | Price per 100 mg of EPA+ DHA ¹⁴ |
|--|---|---|--|--|--|--|--|
| | | | OVERALL RESULTS: APPROVED (Passed) or NOT APPROVED (Failed) | Contained Claimed Amount of EPA and DHA <i>Relative Concentration of EPA + DHA¹</i> <i>Claimed Amount of EPA + DHA Per Pill or Unit²</i> | Purity Did Not Exceed Contamination Limits for Mercury and PCBs D = Also Tested for Dioxins: Safe Level Found Processing Claims | Freshness (TOTOX values above 26 indicate spoilage) ¹³ | |
| Nordic Naturals DHA Strawberry Taste (45 mg EPA and 225 mg DHA per softgel, 2 per day)* Ingredients \$ Price Check | Dist. by Nordic Naturals, Inc. | EPA: 90 mg DHA: 450 mg | APPROVED | ✓ <i>Extremely High</i> <i>270 mg per medium/large softgel</i> | ✓D ¹¹ Molecularly distilled | ✓ | 10¢ |

Krill Oil – Consumer Lab Results

Krill Oil: (Also see "Finest Natural Omega-3 Krill Oil" in Softgels section above. Additionally, two krill oil ingredients have been tested and approved for quality through ConsumerLab.com's [Raw Materials Testing Program](#).)

| | | | | | | | |
|---|--------------------------------|---------------------------|---------------------|---|-----------------|-------------------------------|-----|
| NOW Neptune Krill Oil (75 mg EPA and 45 mg DHA per softgel, 2 per day) Ingredients | Mfd. by NOW Foods | EPA: 150 mg DHA: 90 mg | NOT APPROVED | Found only 79.1% of claimed EPA and 76.7% of claimed DHA Also found only 78.4% of claimed total omega-3 fatty acids Moderate 120 mg per medium/large softgel | ✓ ¹¹ | Spoilage (TOTOX value = 57.4) | 28¢ |
| Source Naturals Arctic Pure Krill Oil (75 mg EPA and 45 mg DHA per softgel, 2 per day) Ingredients \$ Price Check | Dist. by Source Naturals, Inc. | EPA: 150 mg DHA: 90 mg | APPROVED | ✓ Moderate 120 mg per medium/large softgel | ✓ ^a | ✓ | 31¢ |

Understanding a Certificate of Analysis



Certificate of Analysis

| | | |
|---|---|---|
| Product: Arctic Cod Liver Oil Orange, Liquid | Bulk Batch Nr: N/A | Bottle Lot Nr: 3699 |
| Manufacture Date: April, 2010 | Product Storage: Cool dry place, away from sunlight | Shelf Life: Three years from manufacture date |

Freshness

The smaller the number, the fresher the oil.

American Oil Chemists Society *Section of AOCS method book* *Not More Than* *Potassium Hydroxide*

| Oxidation | Test Method | Limits | Assay Result* |
|----------------------------|---------------|-----------------|---------------|
| ACID | AOCS Cd 8d-83 | NMT 1.0 KOH/g | 0.13 KOH/g |
| PEROXIDE | AOCS Cd 8b-90 | NMT 5.0 meq/kg | 1.3 meq/kg |
| ANISIDINE** | AOCS 18-90 | NMT 16.0 meq/kg | 3.9 meq/kg |
| TOTOX*** (TOTAL OXIDATION) | Calculation | NMT 26.0 meq/kg | 6.5 meq/kg |

**Because of limitations of available testing methods, the anisidine value is determined using third-party testing from pre-flavored oil.
***Totox values are computed from testing performed on pre-flavored oil combined with finished product testing.

United States Environmental Protection Agency

| 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) | < 0.01 mg/kg (ppm) |

Purity

These are toxins and pathogens, so the smaller the number, the purer the oil.

Parts Per Trillion *Parts Per Million*

| Environmental Toxins | Test Method | Limits | Assay Result* |
|---|-----------------------|----------------------|-------------------|
| POLYCHLORINATED BIPHENYLS (PCBs) | USEPA 1668 Revision A | NMT 0.09 mg/kg (ppm) | 0.004 mg/kg (ppm) |
| DIOXIN-LIKE PCBs (non-ortho & mono-ortho) | USEPA 1668 Revision A | NMT 1.0 pg/g (ppt) | 0.168 pg/g (ppt) |
| DIOXINS & FURANS (WHO TEQ) | USEPA 1613 | NMT 2.0 pg/g (ppt) | 0.358 pg/g (ppt) |

United States Pharmacopeia

Colony Forming Units

| 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 |

Section of AOCS method book

| Fatty Acid Profile | Test Method | Label Claim (Vol. %) | Assay Result* |
|-----------------------------|--------------------------|----------------------|---------------|
| EICOSAPENTAENOIC ACID (EPA) | AOCS CE 1b-89 (modified) | 9% (7.2-10.8%) | 9.8% |
| DOCOSAHEXAENOIC ACID (DHA) | AOCS CE 1b-89 (modified) | 14% (11.2-16.8%) | 12.9% |
| TOTAL OMEGA-3 | AOCS CE 1b-89 (modified) | 28% (22.4-33.6%) | 27.6% |

*Third party test results by Nutrasource Diagnostics, Inc. and Covance, Inc.

Potency

LIMITS:

Peroxide—CRN & GOED limit: 5.0 mEq/kg
Totox (Total Oxidation)—CRN limit: 26 mEq/kg
Heavy Metals—CRN & GOED limit: 0.1 ppm
Dioxins & Furans—CRN & GOED limit: 2.0 ppt
Dioxin-like PCBs—CRN & GOED limit: 3.0 ppt

EP: European Pharmacopeia

CRN: Council for Responsible Nutrition

IFOS: International Fish Oil Standards

GOED: Global Organization for EPA and DHA Omega-3

WHO: World Health Organization

PROP 65: CA Prop 65 Safe Harbor Limit for PCBs is .09 µg/day





TM

How does your fish oil supplement stack up compared to other brands?

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IFOS Consumer Reports

Consumer Reports are easy-to-understand, batch-specific summaries of a product's IFOS testing results. The reports include a 5-star rating for each product, allowing consumers to compare fish oil products based on their safety, purity and quality.

For every testing category a product passes, it is awarded one star for a total of 5 possible stars. A 5-star rating means that the product:

- Complies with all **CRN/GOED/WHO testing categories**
- Contains the same quantity of **active ingredients** that is listed on the product label
- Has an **oxidation level** less than 75% of the CRN/GOED standard
- Has **PCB levels** less than 50% of the CRN/GOED standard
- Has **dioxin levels** less than 50% of the WHO standard

To search for a Consumer Report, start by entering in a lot number:


Or, please select one of the following product categories:

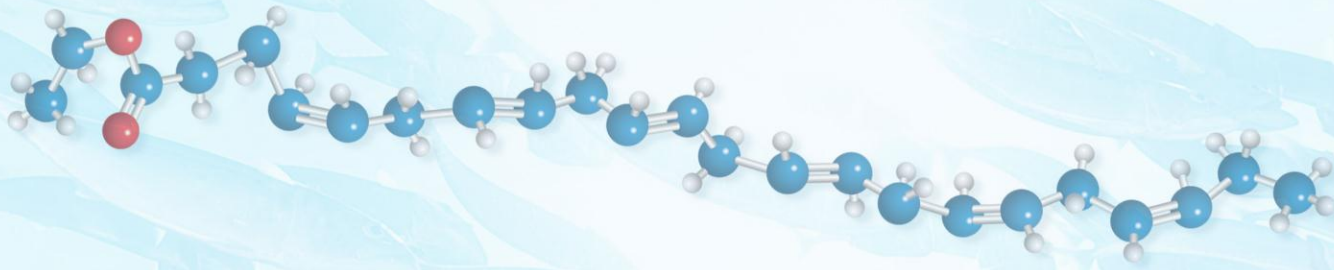
☒ Ultra☐ Natural☐ Combination☐ Kids☐ Functional Foods☐ Raw Material☐ Pet Products☐ Archived

Ultra-refined Products Category

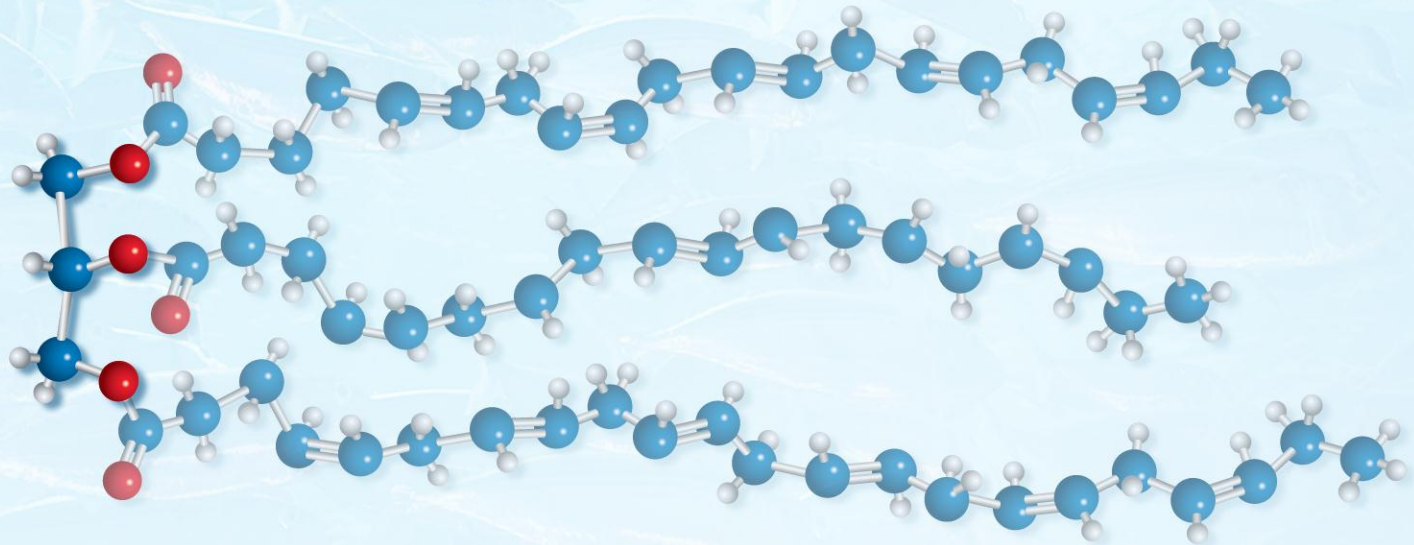
5 Star Rating for omega-3 products containing greater than 60% concentration of EPA and DHA per gram of fish oil

[A M B Well Inc.](#)[Advanced Naturals](#)[Arctic Naturals](#)[Barleans Organic Oils](#)

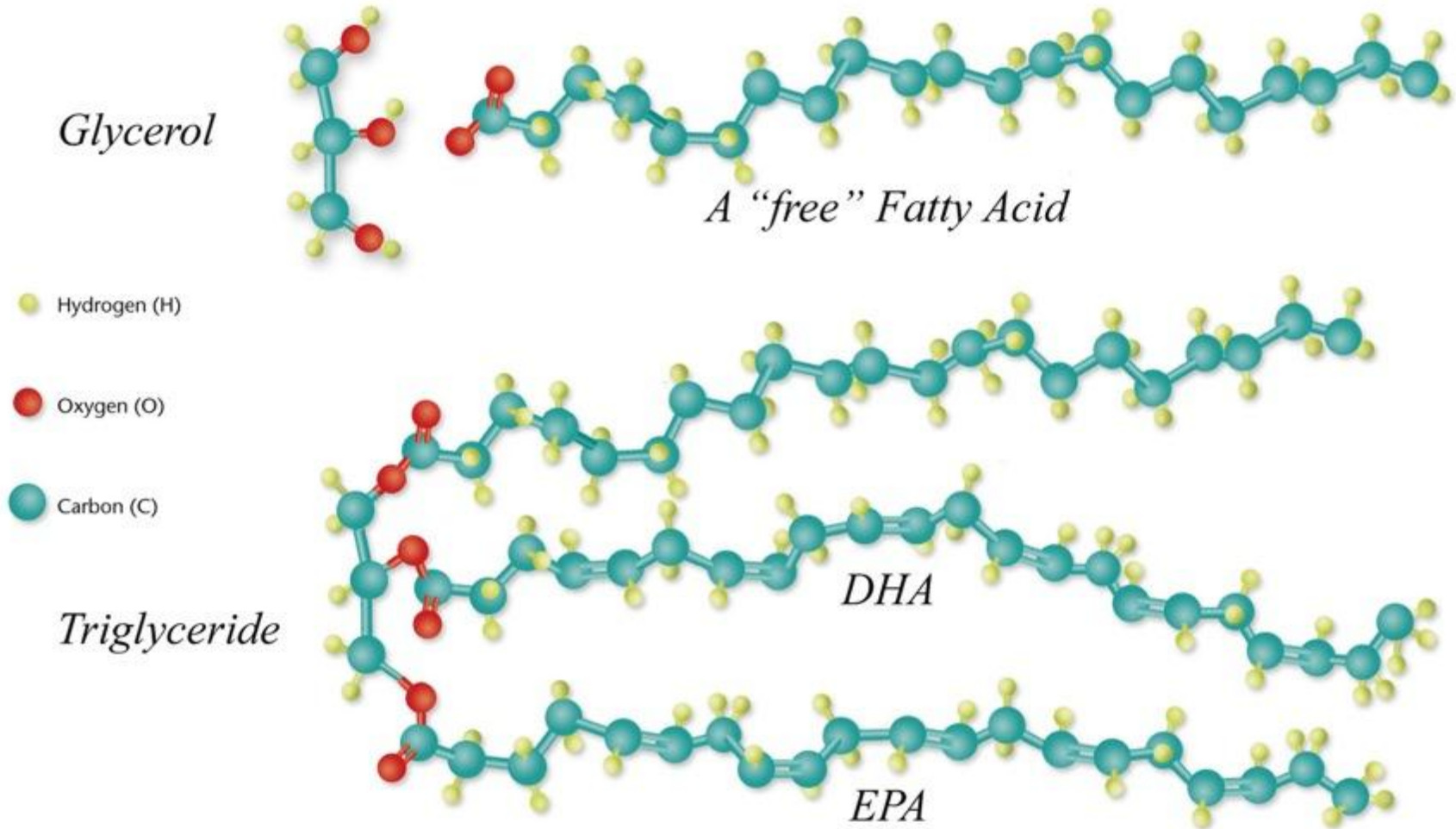
| | | | | |
|--|-------------------|---|-----------------|-----------------|
| TOTAL OMEGA-3 | | 600mg/1000mg | 607mg/1000mg | YES |
| CATEGORY 2 PURITY, SAFETY AND CLEANLINESS - PCB's, Mercury, Dioxins and Furans | | | | |
| PCB | CRN/GOED Standard | Detection Limit | Batch Result | IFOS Compliance |
| | < 90 ppb | < ppt | 0.1991 ppb | YES |
| | WHO Standard | Detection Limit | Batch Result | IFOS Compliance |
| Dioxins and Furans | < 2 ppt | < ppt | 0.351 ppt | YES |
| Dioxin Like PCB's | < 3 ppt | < ppt | 0.0774 ppt | YES |
| CATEGORY 3 STABILITY - Peroxide, Anisidine, Total Oxidation and Acid Value | | | | |
| | CRN/GOED Standard | Batch Results | IFOS Compliance | |
| Peroxide | < 5 meq/kg | 0.72 meq/kg | YES | |
| Anisidine | < 20 meq/kg | 4.5 meq/kg | YES | |
| Total Oxidation | < 26 meq/kg | 5.94 meq/kg | YES | |
| Acid Value | < 3.0 mg KOH/g | 0.56 mg KOH/g | YES | |
| CATEGORY 4 HEAVY METALS and MERCURY Lead, In-organic Arsenic, Cadmium | | | | |
| | CRN/GOED Standard | Batch Results | IFOS Compliance | |
| Mercury (Hg) | 0.1 ppm | < 0.01 ppm | YES | |
| Lead (Pb) | 0.1 ppm | < 0.01 ppm | YES | |
| Arsenic (As) | 0.1 ppm | < 0.05 ppm | YES | |
| Cadmium (Cd) | 0.1 ppm | < 0.01 ppm | YES | |
| | | IFOS Program created, developed and administered by Nutrasource Diagnostics Inc. ™, University of Guelph Research Park, Health Canada Establishment | | |
| | |  | | |



Two Very Different Forms



Components of a RTG



We are Dedicated to Superior Omega-3s

According to the Norwegian Scientific Committee for Food Safety
:

- ◆ Triglycerides are viewed as being more "natural" than other fatty acid derivatives, such as ethyl esters.
- ◆ The stability against oxidation seems higher when the n-3 fatty acids are in the form of triglyceride than as ethyl esters
- ◆ The production of concentrated triglycerides has therefore acquired great interest.

Bioavailability of marine n-3 fatty acid formulations[☆]

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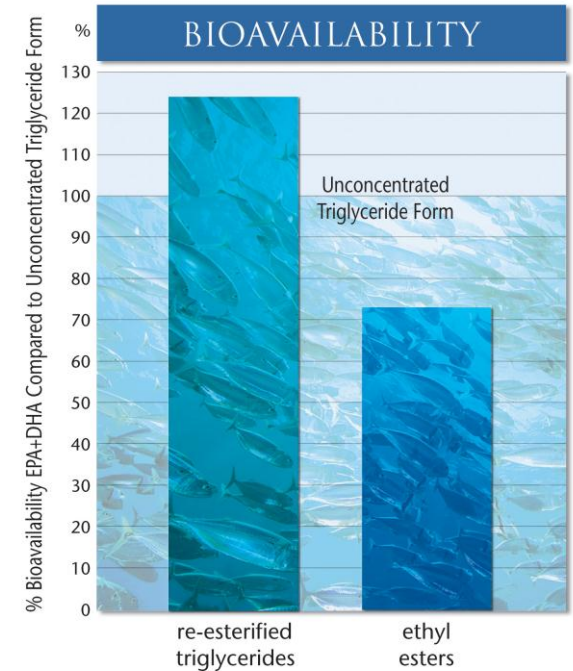
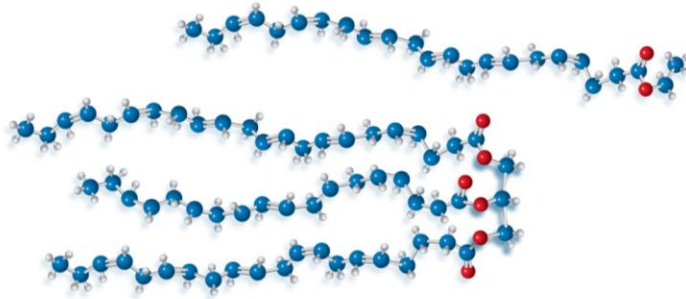
ABSTRACT

The use of marine n-3 polyunsaturated fatty acids (n-3 PUFA) as supplements has prompted the development of concentrated formulations to overcome compliance problems. The present study compares three concentrated preparations — ethyl esters, free fatty acids and re-esterified triglycerides — with placebo oil in a double-blinded design, and with fish body oil and cod liver oil in single-blinded arms. Seventy-two volunteers were given approximately 3.3 g of eicosapentaenoic acid (EPA) plus docosahexaenoic acid (DHA) daily for 2 weeks. Increases in absolute amounts of EPA and DHA in fasting serum triglycerides, cholesterol esters and phospholipids were examined. Bioavailability of EPA+DHA from re-esterified triglycerides was superior (124%) compared with natural fish oil, whereas the bioavailability from ethyl esters was inferior (73%). Free fatty acid bioavailability (91%) did not differ significantly from natural triglycerides. The stereochemistry of fatty acid in acylglycerols did not influence the bioavailability of EPA and DHA.

Omega-3 Bioavailability: EE vs. TG/rTG

- ◆ **CONCLUSION:** Omega-3 fatty acids in the re-esterified triglyceride (RTG) and concentrated form may be the most bioavailable, compared to free fatty acids (FFA) or ethyl ester (EE) forms.

SIMPLIFIED TAKE AWAY: rTG form is 70% more absorbable than EE form



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Eur J Clin Nutr. 2010 Nov 10. [Epub ahead of print]

Enhanced increase of omega-3 index in response to long-term n-3 fatty acid supplementation from triacylglycerides versus ethyl esters.

Neubronner J, Schuchardt JP, Kressel G, Merkel M, von Schacky C, Hahn A.

Institute of Food Science and Human Nutrition, Leibniz Universität Hannover, Am Kleinen Felde 30, Hannover, Germany.

Abstract

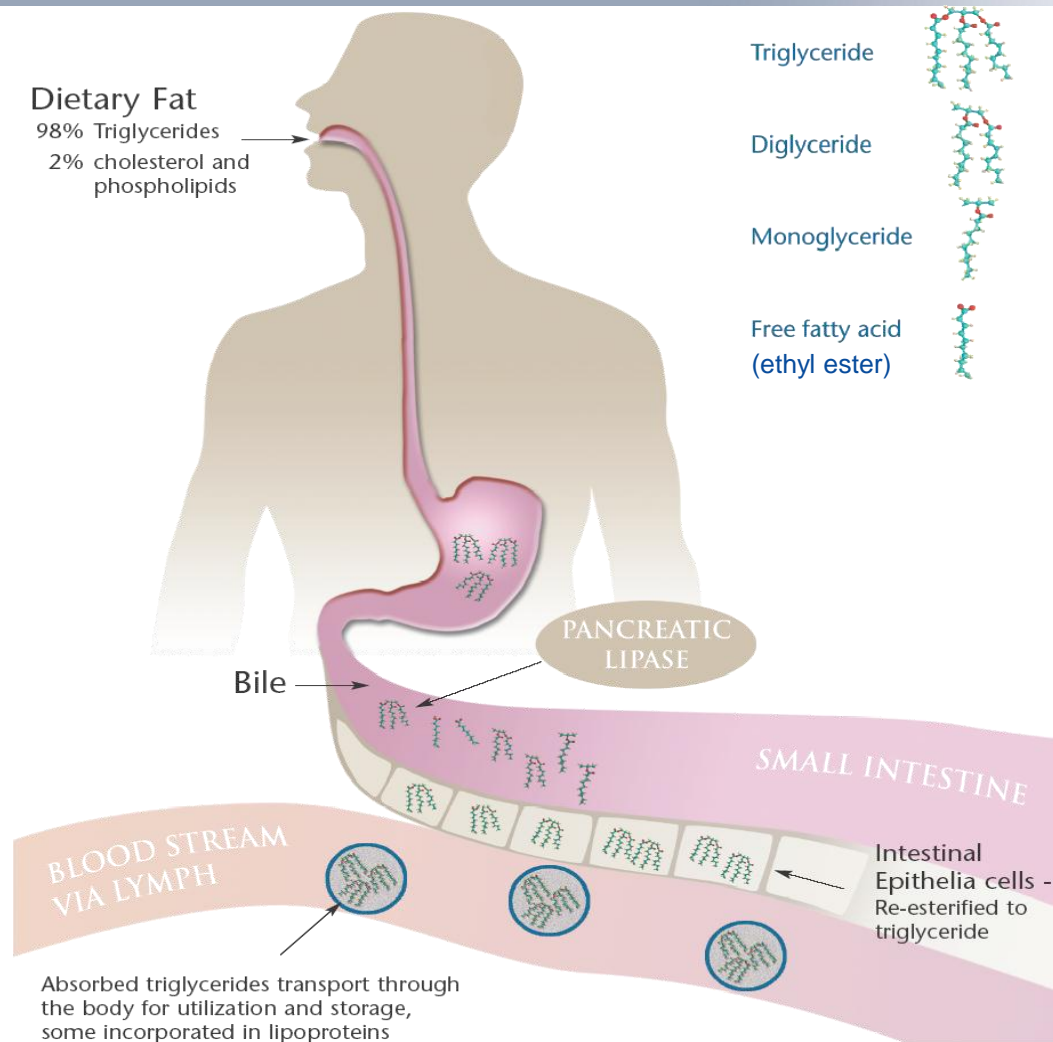
Background: There is a debate currently about whether different chemical forms of eicosapentaenoic acid

(EPA) and docosahexaenoic acid (DHA) can be used interchangeably to investigate the effects of omega-3 fatty acids on cell membranes, to improve cardiovascular health, and to reduce inflammation in humans. **Design:** A randomized, controlled, double-blind study in 150 healthy volunteers was conducted to compare the effects of EPA+DHA (1.01 g+0.67 g) as triglycerides (TG) or as ethyl esters (EE) on the omega-3 index.

CONCLUSION: A six-month supplementation of identical doses of EPA+DHA led to a faster and higher increase in the omega-3 index when consumed as triglycerides than when consumed as ethyl esters.

Results: The omega-3 index increased significantly in both groups, but the increase was significantly higher in the TG group compared to the EE group. The omega-3 index was determined at baseline (t(0)) after three months (t(3)) and at the end of the intervention period (t(6)).

Absorption – designed to digest triglycerides



EFSA's Official Opinion on EPA & DHA Form

“Triglyceride is the major dietary form of Omega-3 EPA & DHA, thus, pancreatic lipase appears to have a greater affinity – or preference – for the fatty acid-glycerol bond over fatty acid-ethanol bond.”



Website Dedicated to Fish Oil Research

www.omega-research.com

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- ◆ Published studies
- ◆ Clinical developments
- ◆ Easy to use – powerful search feature
- ◆ FREE


OMEGA-RESEARCH.COM
your fish oil research library

Search

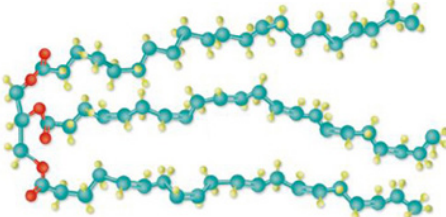
by: ☒ Text ☐ PubMed No. ☐ Date (mm/yyyy)

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- 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



Latest Reports

August 3, 2012
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August 1, 2012
CEA - Fish Oil Benefits Developing Infant Immune Responses

July 30, 2012
EurP - Omega-3 FA on ADHD Symptoms in Children

July 11, 2012
CDSR - PUFA for ADHD in Children and Adolescents

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.

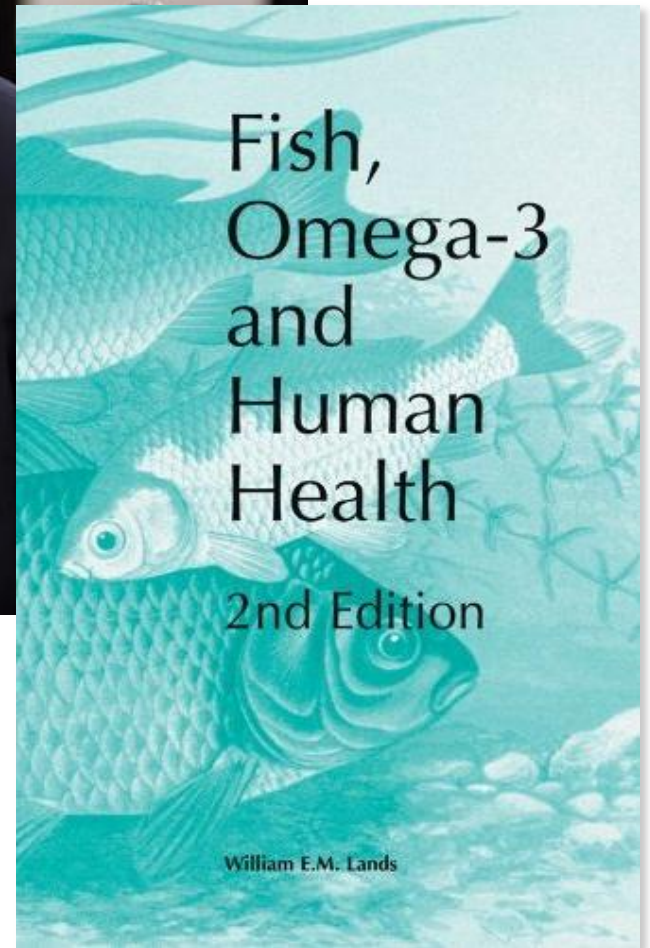
Using Omega-Research.com, you can stay up to date on the ground-breaking research in areas such as heart disease, diabetes, cancer prevention, reproduction, children's health and the many aspects of health affected by chronic inflammation.

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

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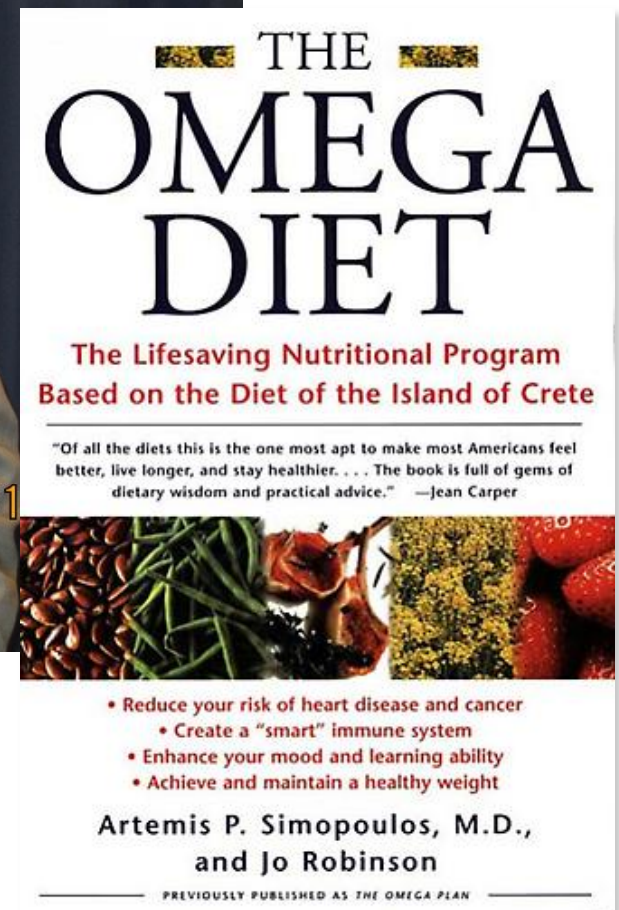


Dr. William E.M. Lands
Former Senior Scientific Advisor
National Institutes of Health





Dr. Artemis Simopolous
*President, Center for Genetics,
 Nutrition and Health
 President, International Society of
 Nutrigenetics/Nutrigenomics*





Dr. Joseph Hibbeln, Captain, USN
Acting Chief,
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National Institutes of Health

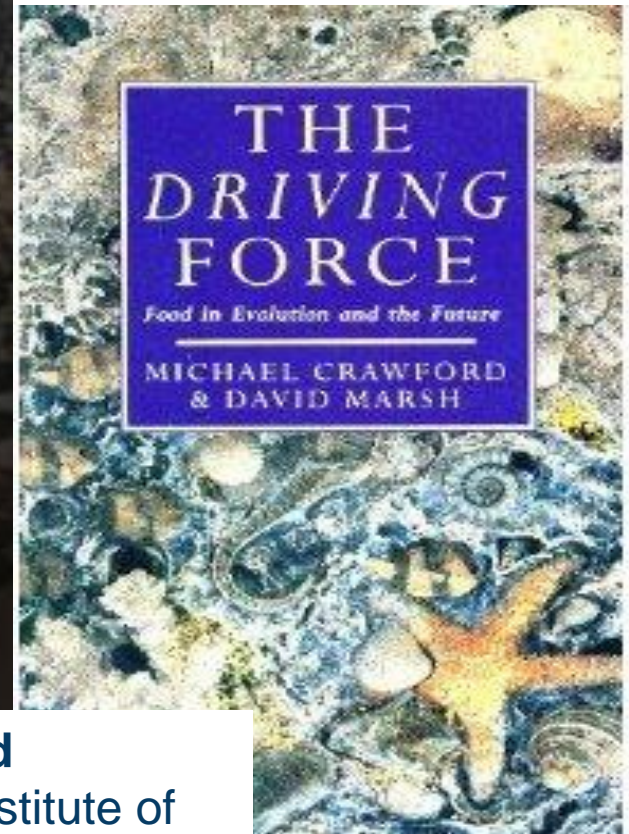


Tom Brenna

*Professor, Division of Nutritional
Sciences, Cornell University
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Michael Crawford
*Professor and Director, Institute of
Brain Chemistry and Human Nutrition
Consultant, WFO, FAO*



A man with a shaved head, wearing a light blue sweater and dark trousers, is sitting in a wooden boat with a white hull and a yellow interior. He is smiling and looking towards the camera. The boat is moored in a harbor filled with many other boats, mostly white with blue accents. In the background, there are several multi-story buildings and mountains under a clear blue sky. The water is calm, reflecting the boats and buildings. The text "Thank You!" is written in a white, cursive font across the middle of the image.

Thank You!



Thank You!

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