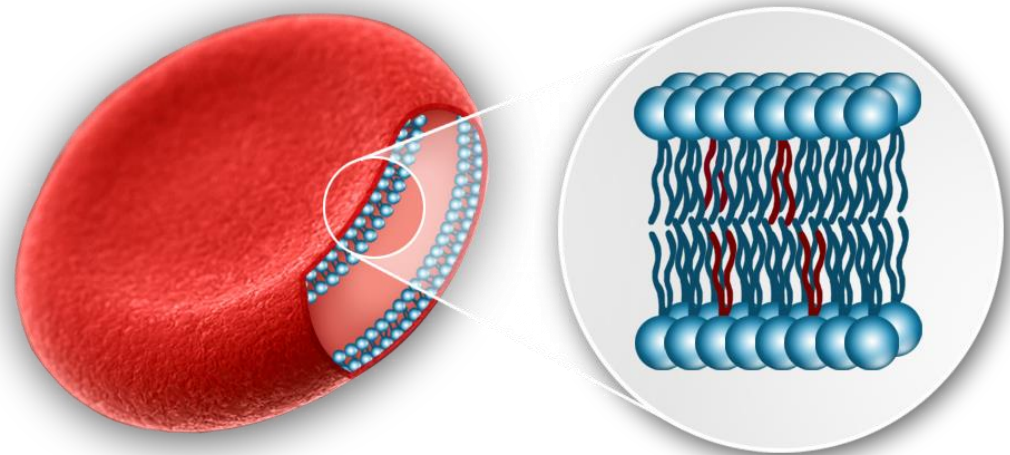


The Omega-3 Index: Biomarker and Risk Factor

RBC EPA+DHA % of
total RBC fatty acids

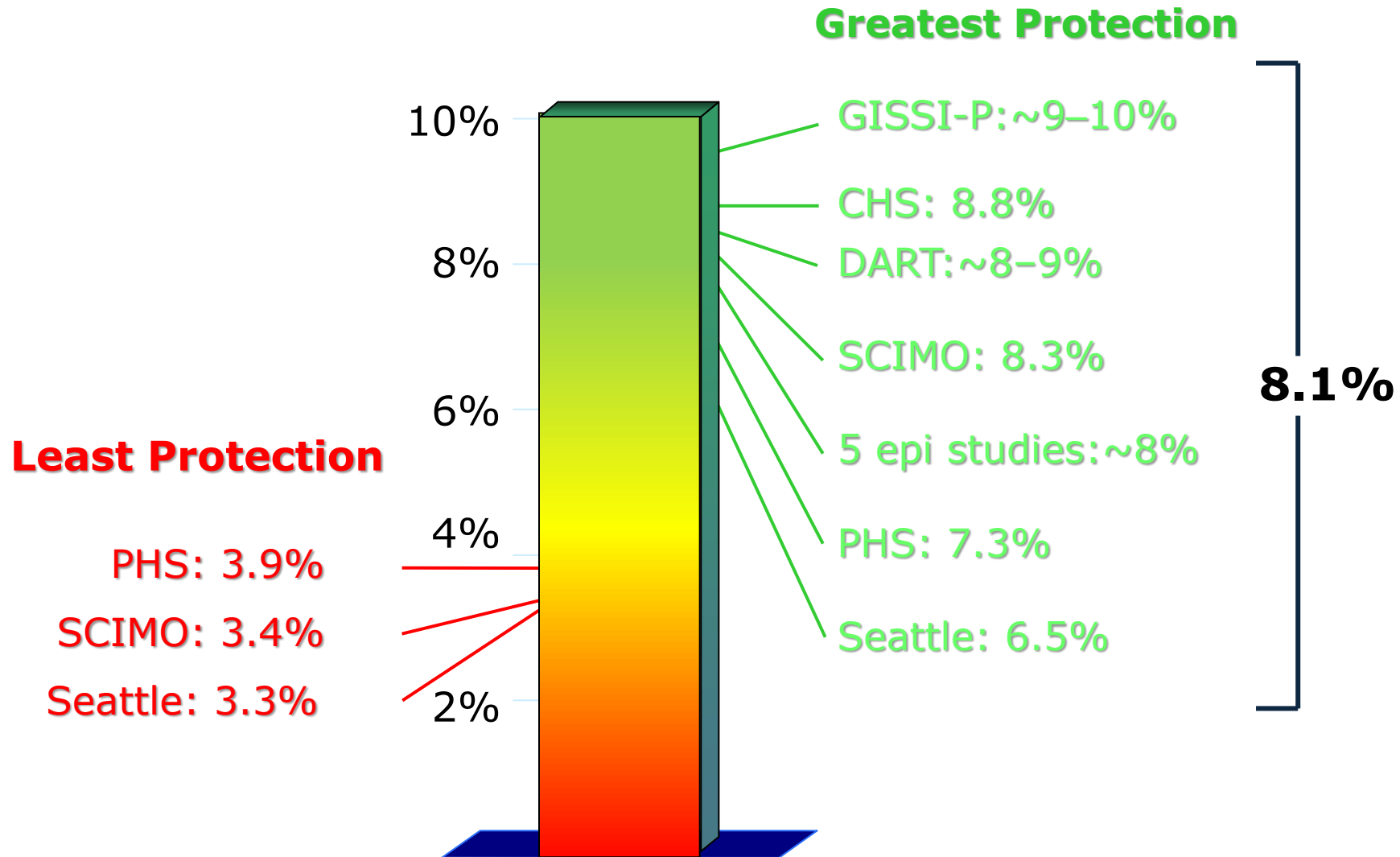
It is a marker of
tissue levels of EPA
and DHA... and a
modifiable risk
factor for multiple
chronic diseases



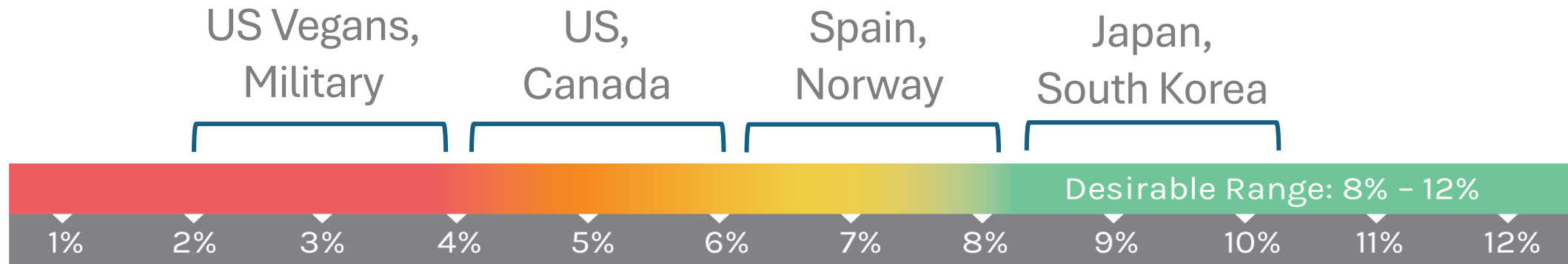
Having an Omega-3 Index in the desirable range (8%-12%) has
been associated with improved heart, brain, and eye health.

Harris WS and von Schacky C. *Prev Med* 2004;39:212-220.

Selecting a target omega-3 index



Typical vs. Desirable Omega-3 Index Levels



Target Omega-3 Index >8%

OmegaQuant Analytics

- Independent, CLIA-certified lab specializing in fatty acid analysis based in Sioux Falls, SD, USA. Lab partner in Europe and Australia.
- Offers nutritional status tests to researchers, healthcare providers, supplement brands, sports teams, wellness facilities, and individuals.
- OmegaQuant offers a variety of blood tests that measure fatty acids (omega-3s, omega-6s, *trans* fats, etc.) from a single drop of blood.
- Our Omega-3 Index blood spot tests have been used by *millions of individuals*.

OmegaQuant is the Leader in Fatty Acid Research

HARVARD
UNIVERSITY



AstraZeneca 



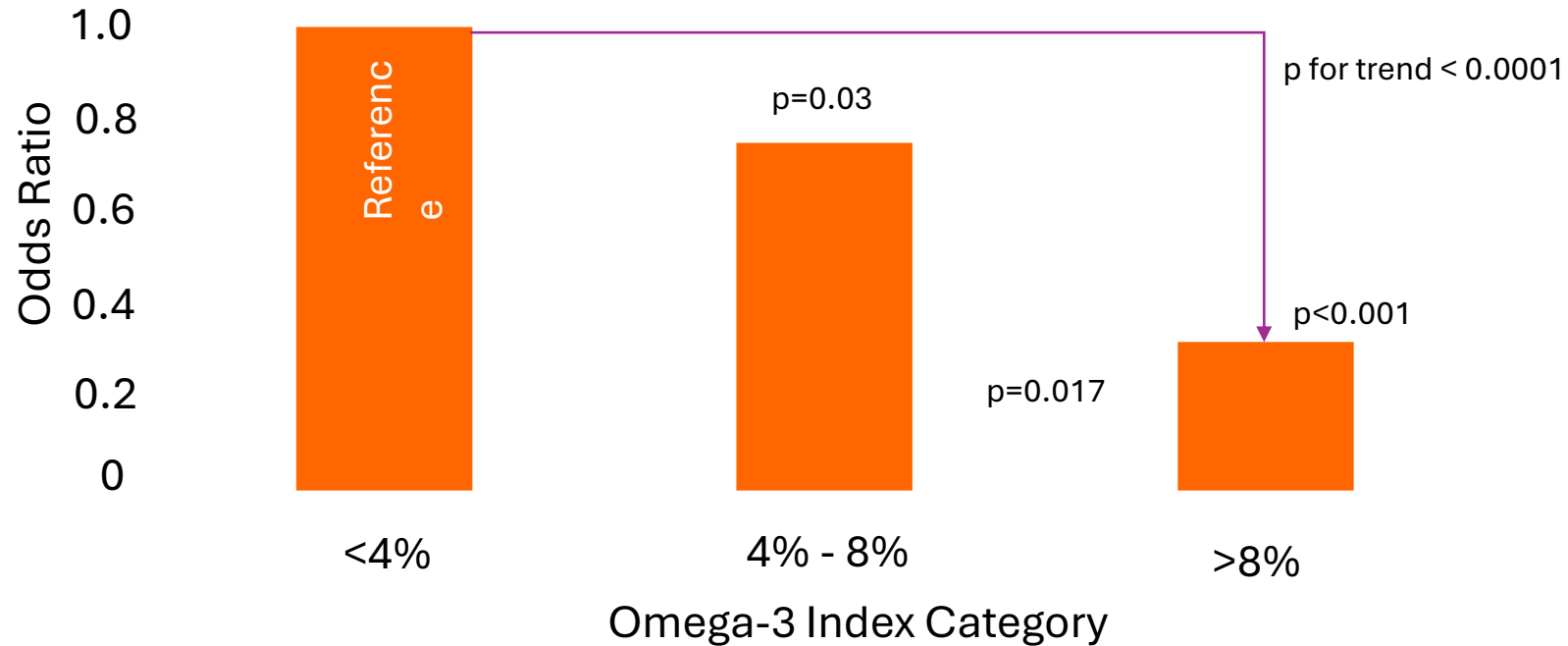
Duke
UNIVERSITY



Omega-3 Index and Acute Coronary Syndromes

(768 case-control pairs)

Those with an Omega-3 Index >8% were 70% less likely to be an ACS patient than those with an Index <4%



Multivariable logistic regression model including: age; race; gender; history of diabetes mellitus, hypertension, hyperlipidemia and/or myocardial infarction; a family history of coronary artery disease; and LDL-C, HDL-C, and triglycerides.

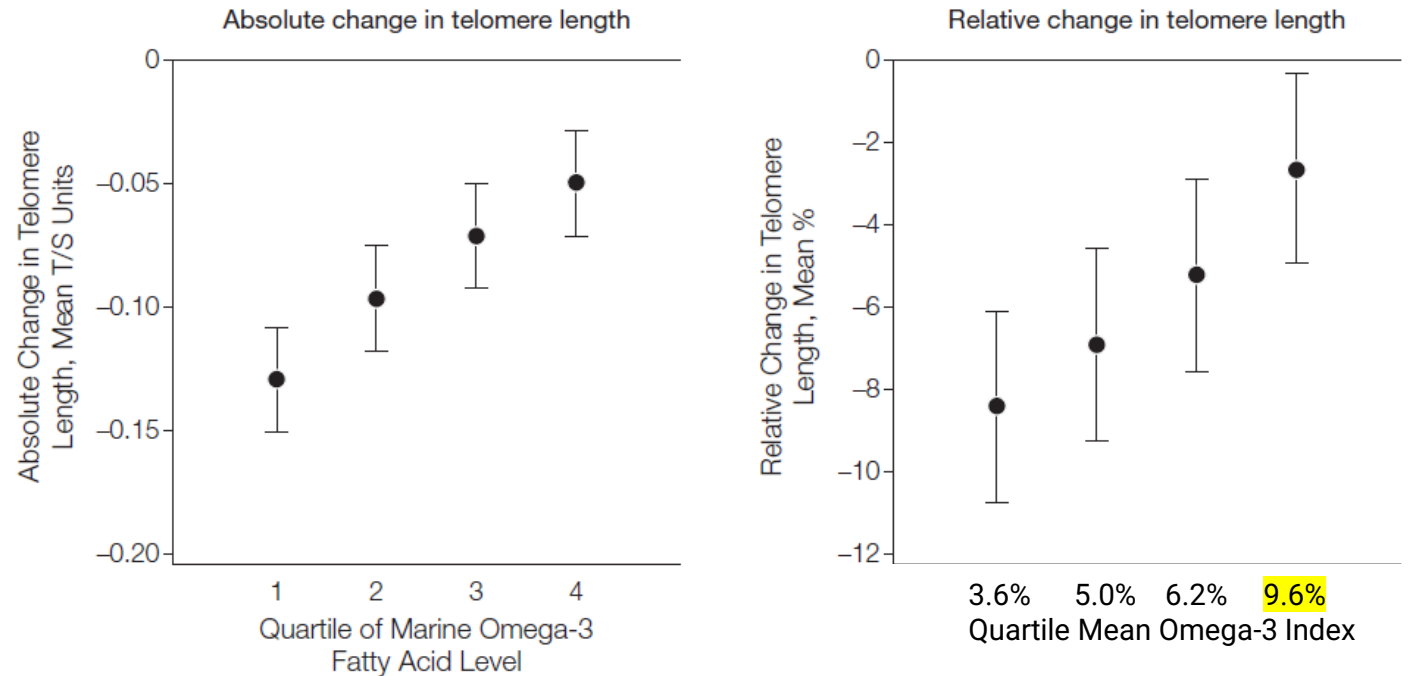
The Heart & Soul Study: Blood Omega-3 and Rate of Telomere Attrition

Patients with the highest Omega-3 Index experienced the slowest rate of telomere shortening (cellular aging)

A 1-SD increase in the O3I was associated with a 32% reduction in the odds of telomere shortening.

* Extrapolated from whole blood EPA+DHA ($r=0.95$)

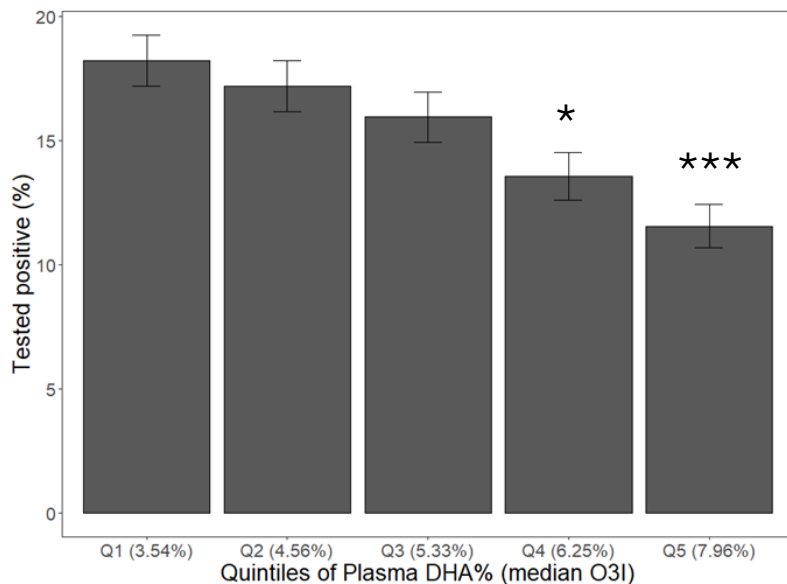
Figure. Absolute and Relative Mean Changes in Telomere Length Over 5 Years by Quartile of Omega-3 Fatty Acid Level, Adjusted for Age and Baseline Telomere Length



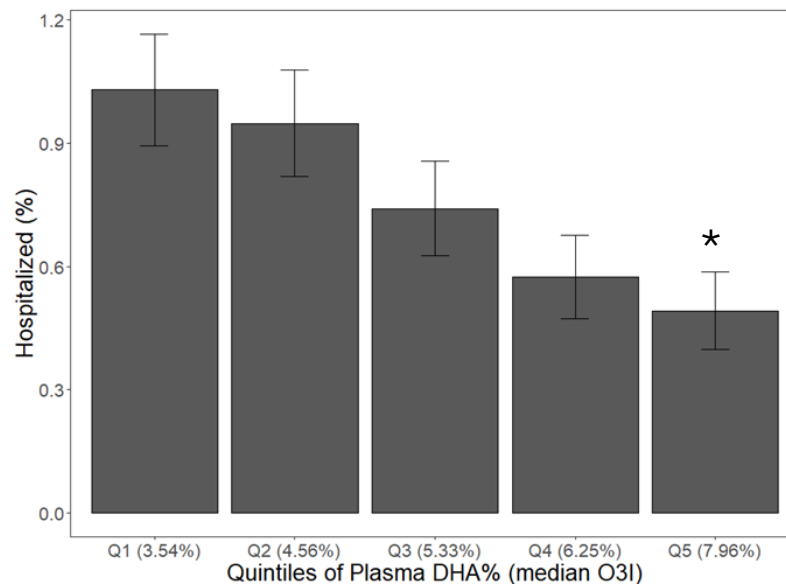
Error bars indicate 95% confidence intervals. T/S indicates telomere-to-single-copy gene ratio. $P<.001$ for linear trend for both absolute and relative change. See Table 1 for definitions of quartiles.

Relations between the Plasma DHA% and COVID-19 Outcomes UK Biobank

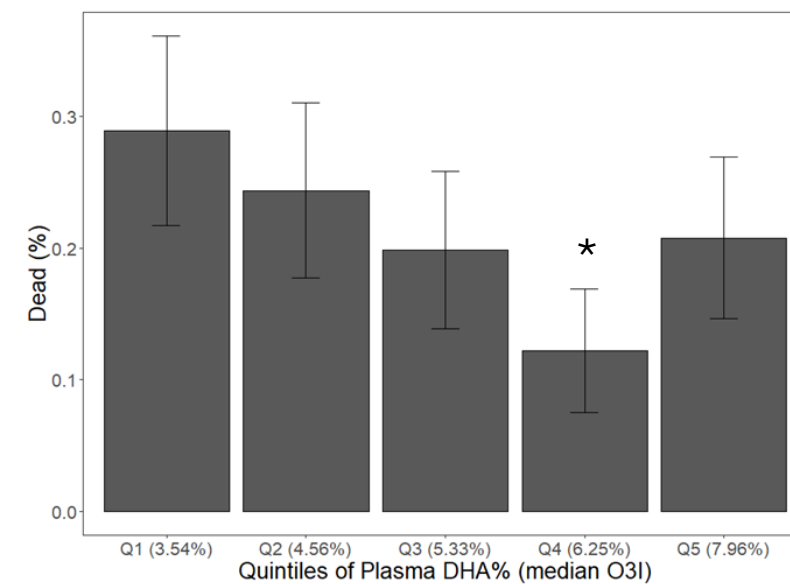
Tested Positive



Hospitalized



Dead



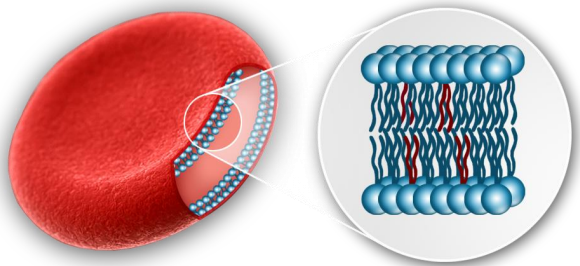
eO3I: Q1=3.54% and Q5=7.96%

N=4084 of 26,620 tested
8% lower risk per 1 SD DHA%***

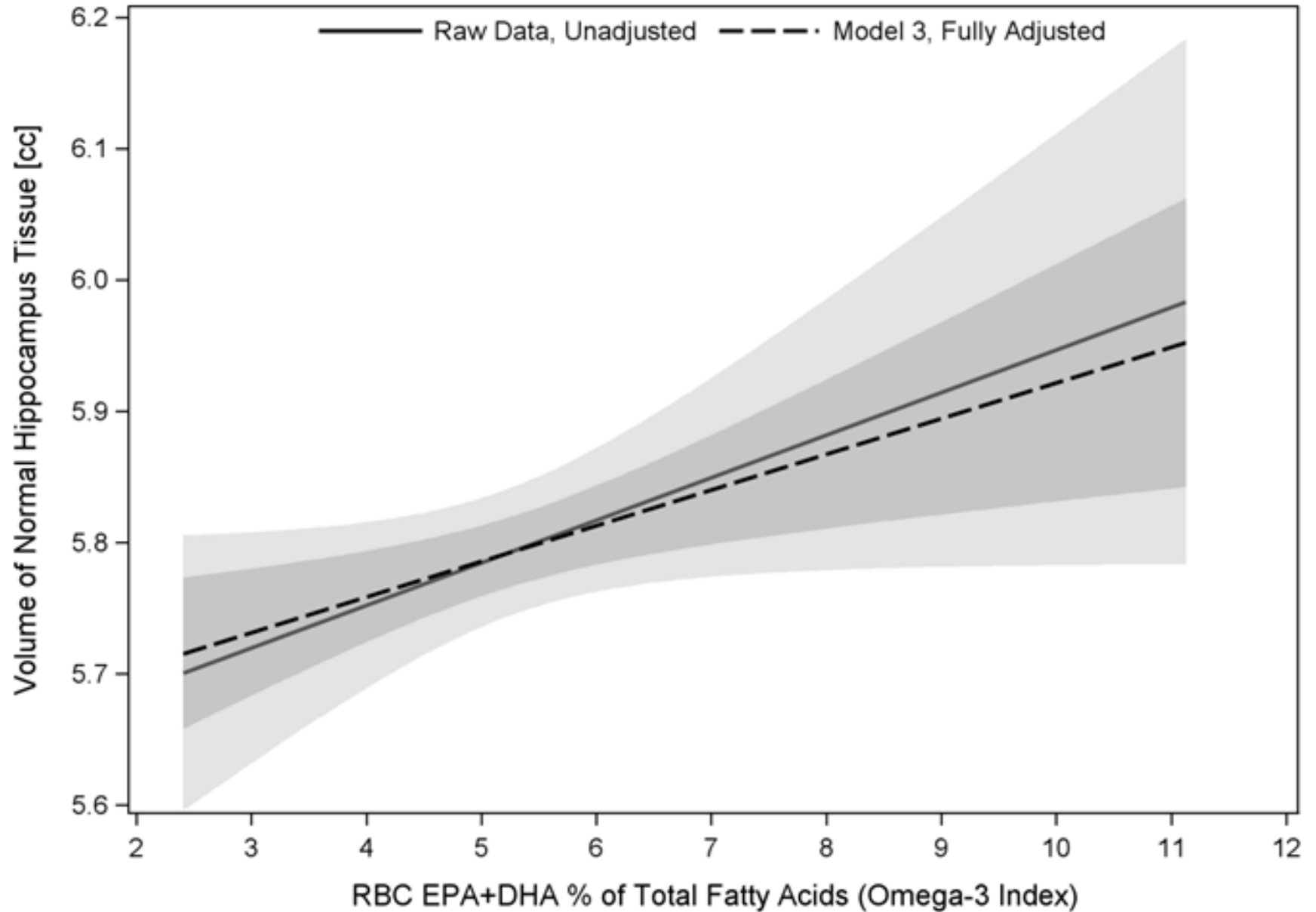
N=838 of 110,688
11% lower risk per 1 SD DHA%**

N=235 of 110,688
6% lower risk per 1 SD DHA% (NS)

The Omega-3 Index and Hippocampal Volume in the Women's Health Initiative Memory Study



The Omega-3 Index (EPA+DHA as a % of erythrocyte fatty acids) is a marker of tissue levels of EPA and DHA.



Risk for developing Alzheimer's disease over an average of 7.3 years as a function of baseline RBC DHA in Framingham

| Endpoint | HR (95% CI) for quintiles of red blood cell DHA | | | | |
|---------------------|-------------------------------------------------|------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------|
| | Q1 (<3.8%, median = 3.4%) (n = 300) | Q2 (3.8% to <4.5%, median = 4.2%) (n = 298) | Q3 (4.5% to <5.2%, median = 4.8%) (n = 297) | Q4 (5.2% to 6.1%, median = 5.6%) (n = 297) | Q5 (>6.1%, median = 6.97%) (n = 295) |
| Alzheimer's disease | | | | | |
| N. of cases | 29 | 30 | 24 | 29 | 19 |
| Hazard Ratio | 1.00 | 0.77 (0.45, 1.33) | 0.64 (0.35, 1.18) | 0.75 (0.42, 1.33) | 0.51 (0.27, 0.96) |
| All-cause dementia | | | | | |
| N. of cases | 35 | 38 | 29 | 40 | 26 |
| Hazard Ratio | 1.00 | 0.79 (0.49, 1.29) | 0.64 (0.37, 1.11) | 0.87 (0.53, 1.44) | 0.56 (0.32, 0.97) |

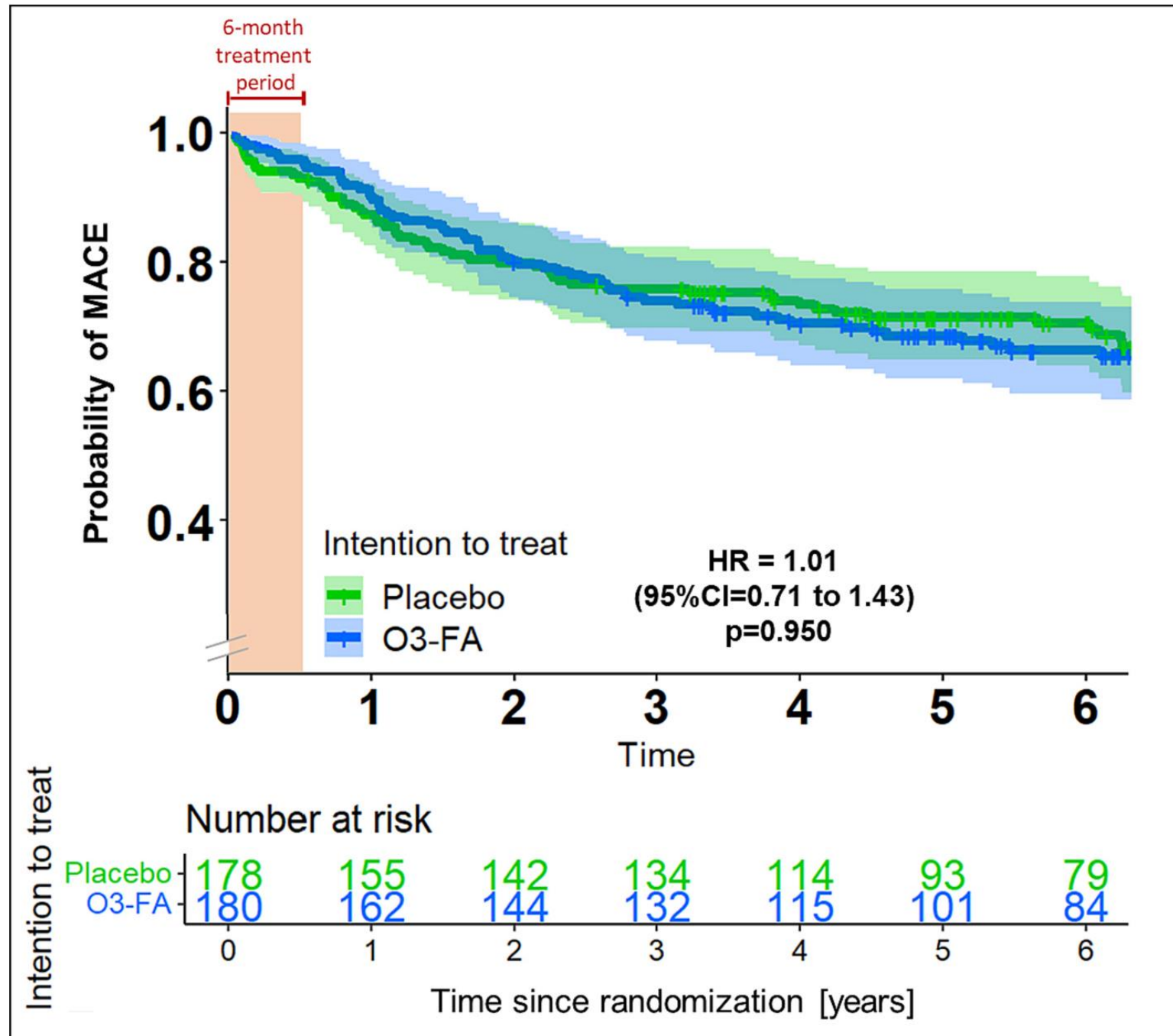
= 8.13% O3I

49% lower risk for AD comparing Q5 to Q1

Long-term (6 yr) Major Adverse Cardiac Events (MACE) were compared in post-MI patients assigned to 6 months of treatment with Omacor vs Placebo

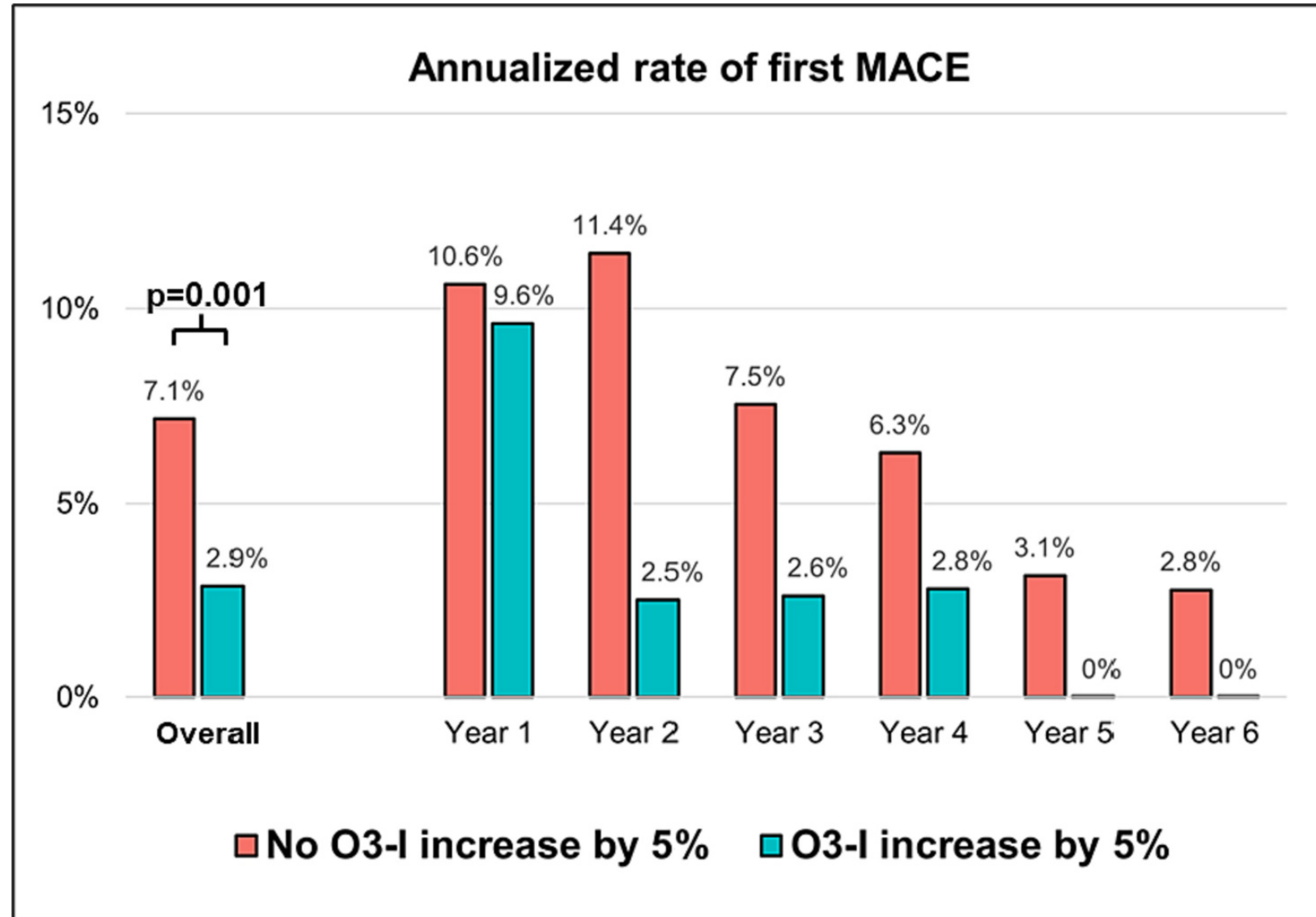
There was no difference in MACE outcomes *by treatment group*.

Bernhard et al. Int J Cardiology 399 (2024) 131698



There was a 59% reduction in risk for MACE in those who had an **increase** in the O3I $\geq 5\%$ (n=43) during treatment vs those who did not (n=211).

Achieving target tissue Om3 levels is more important than just being told to take Omega-3.



Commercial Partners Include



Hologram



NutriDyn
A Partner in Health



AlgaeCal



Schools and Teams who Trust OmegaQuant



Omega-3 Index Test Options



Omega-3 Index Basic Report

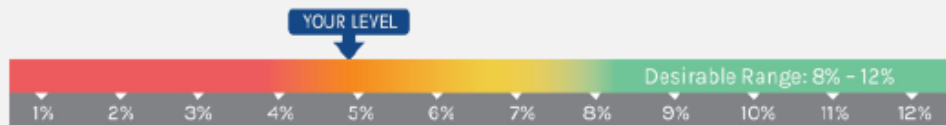
NAME: Grace Piattoly
DOB: 03/26/2011
PATIENT ID: TPIattoly
SAMPLE ID: USAF140711

COLLECTION DATE: 01/31/2022
RESULT DATE: 02/08/2022
PROVIDER: Tavis Piattoly
ACCOUNT: Consumer

Your Omega-3 Index

Reference Range*: 3.00% - 14.10%

4.89%



* Reference Ranges encompass about 99% of fatty acids levels measured in US adults. Visit our [FAQ](#) section for more information on ranges.

The Omega-3 Index is the proportion of long-chain omega-3s, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), of all fatty acids in your red blood cell membranes. It reflects the omega-3 status of your body over the last 4 months, similar to how hemoglobin A1C reflects long-term glucose blood levels. As a part of an overall healthy lifestyle, an Omega-3 Index in the 8-12% range may help to maintain heart, brain, eye and joint health. To increase your Omega-3 Index, eat foods rich in EPA and DHA, especially "oily" fish such as those in the accompanying table. They can also be obtained from dietary supplements (fish, krill, cod liver, algal oils) and functional foods (omega-3 enriched milk, eggs, etc.).

The amount of EPA and DHA needed to raise the Omega-3 Index into the desirable range is different for everybody. Many factors – age, sex, weight, diet, genetics, smoking habits, medications, and other medical conditions – can all influence the body's response to EPA and DHA. Still, we can provide an estimate, based on our own research, of how much EPA and DHA you may need to raise your level to the desirable range given your current Omega-3 Index level. Visit our [Omega-3 Index Calculator](#) on [OmegaQuant.com](#) to find out your personalized EPA and DHA recommendation.

The other main dietary omega-3 fatty acid, alpha-linolenic acid (ALA), is found in walnuts, flax and chia seeds. ALA can be converted to EPA and DHA in the body, but this happens at a very low rate in most people. An increase in ALA intake will have little to no effect on the Omega-3 Index.

Please consult with your healthcare provider before making any dietary changes. If you increase your intake of EPA and DHA, your Omega-3 Index will begin to slowly go up within a few days but will continue to change for 3-4 months. We recommend that you re-measure your Omega-3 Index in 3-4 months until you reach the desirable range. Once you reach the desirable range for Omega-3 Index, we recommend that you re-test every 6 months. Answers to commonly asked questions about your results can be found in the [FAQ](#) section on our website.

Amount of EPA and DHA in Seafood and Supplements

| Fish and Seafood (3 oz or 85 g) | EPA (mg) | DHA (mg) | EPA + DHA (mg) |
|-----------------------------------|-----------|------------|----------------|
| Pacific Herring | 1056 | 751 | 1807 |
| Atlantic Herring | 773 | 939 | 1712 |
| Atlantic Salmon (wild) | 349 | 1215 | 1564 |
| Bluefin Tuna | 309 | 970 | 1279 |
| Atlantic Salmon (farmed)* | 510 - 587 | 680 - 1238 | 1190 - 1825 |
| Pink Salmon (wild) | 456 | 638 | 1094 |
| Coho Salmon (farmed) | 347 | 740 | 1087 |
| Mackerel (canned) | 369 | 677 | 1046 |
| Sockeye Salmon (wild) | 451 | 595 | 1046 |
| Chum Salmon (canned) | 402 | 597 | 999 |
| Rainbow Trout (farmed) | 284 | 697 | 981 |
| Coho Salmon (wild) | 341 | 559 | 900 |
| Sardines (canned) | 402 | 433 | 835 |
| Albacore (or white) Tuna (canned) | 198 | 535 | 733 |
| Shark (raw) | 267 | 444 | 711 |
| Swordfish | 117 | 579 | 696 |
| Sea Bass | 175 | 473 | 648 |
| Pollock | 77 | 383 | 460 |
| Flat Fish (Flounder/Sole) | 207 | 219 | 426 |
| Blue Crab | 207 | 196 | 403 |
| Halibut | 77 | 318 | 395 |
| Oysters (farmed) | 195 | 179 | 374 |
| King Crab | 251 | 100 | 351 |
| King Mackerel | 148 | 193 | 341 |
| Walleye | 93 | 245 | 338 |
| Dungeness Crab | 239 | 96 | 335 |
| Scallops | 141 | 169 | 310 |
| Skipjack Tuna | 77 | 201 | 278 |
| Mixed Shrimp | 145 | 122 | 267 |
| Clams | 117 | 124 | 241 |
| Yellowfin Tuna | 40 | 197 | 237 |
| Light Chunk Tuna | 40 | 190 | 230 |
| Catfish (wild) | 85 | 116 | 201 |
| Catfish (farmed) | 42 | 109 | 151 |
| Cod | 3 | 131 | 134 |
| Mahi-Mahi (dolphin fish) | 22 | 96 | 118 |
| Tilapia | 4 | 111 | 115 |
| Orange Roughy | 5 | 21 | 26 |

Dietary Supplements – Amount (mg) per capsule or per teaspoon

| | | | |
|----------------------------------------|---------|---------|---------|
| Standard Fish Oil Capsules | 180 | 120 | 300 |
| Fish Oil Concentrates (many varieties) | 100-400 | 100-400 | 300-700 |
| Cod Liver Oil (teaspoon) | 300 | 500 | 800 |
| Krill Oil | 100-300 | 50-150 | 150-450 |
| Algal Oil | 50-150 | 100-300 | 150-450 |

Omega-3 Index Plus Report

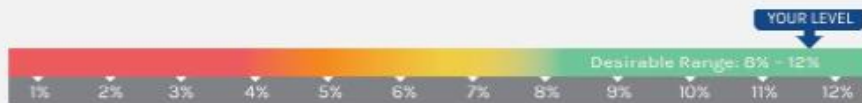
NAME: Tavis Piattoly
DOB: 03/25/1976
PATIENT ID: TPiattoly
SAMPLE ID: USAE976780

COLLECTION DATE: 01/31/2022
RESULT DATE: 02/08/2022
PROVIDER: Tavis Piattoly
ACCOUNT: Consumer

Your Omega-3 Index

Reference Range*: 3.00% - 14.10%

11.64%



* Reference Ranges encompass about 99% of fatty acids levels measured in US adults. Visit our [FAQ](#) section for more information on ranges.

The Omega-3 Index is the proportion of long-chain omega-3s, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), of all fatty acids in your red blood cell membranes. It reflects the omega-3 status of your body over the last 4 months, similar to how hemoglobin A1C reflects long-term glucose blood levels. As a part of an overall healthy lifestyle, an Omega-3 Index in the 8-12% range may help to maintain heart, brain, eye and joint health. To increase your Omega-3 Index, eat foods rich in EPA and DHA, especially "oily" fish such as those in the accompanying table. They can also be obtained from dietary supplements (fish, krill, cod liver, algal oils) and functional foods (omega-3 enriched milk, eggs, etc.).

The amount of EPA and DHA needed to raise the Omega-3 Index into the desirable range is different for everybody. Many factors – age, sex, weight, diet, genetics, smoking habits, medications, and other medical conditions – can all influence the body's response to EPA and DHA. Still, we can provide an estimate, based on our own research, of how much EPA and DHA you may need to raise your level to the desirable range given your current Omega-3 Index level. Visit our [Omega-3 Index Calculator](#) on [OmegaQuant.com](#) to find out your personalized EPA and DHA recommendation.

The other main dietary omega-3 fatty acid, alpha-linolenic acid (ALA), is found in walnuts, flax and chia seeds. ALA can be converted to EPA and DHA in the body, but this happens at a very low rate in most people. An increase in ALA intake will have little to no effect on the Omega-3 Index.

Please consult with your healthcare provider before making any dietary changes. If you increase your intake of EPA and DHA, your Omega-3 Index will begin to slowly go up within a few days but will continue to change for 3-4 months. We recommend that you re-measure your Omega-3 Index in 3-4 months until you reach the desirable range. Once you reach the desirable range for Omega-3 Index, we recommend that you re-test every 6 months. Answers to commonly asked questions about your results can be found in the [FAQ](#) section on our website.

Omega Ratios Report

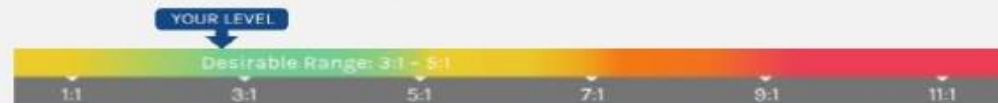
NAME: Tavis Piattoly
DOB: 03/25/1976
PATIENT ID: TPiattoly
SAMPLE ID: USAE976780

COLLECTION DATE: 01/31/2022
RESULT DATE: 02/08/2022
PROVIDER: Tavis Piattoly
ACCOUNT: Consumer

Omega-6:Omega-3

Reference Range*: 2.1:1 - 13.6:1

2.7:1



AA:EPA

Reference Range*: 1.3:1 - 59.9:1

1.6:1



Trans Fat Index Report

NAME: Tavis Piattoly
DOB: 03/25/1976
PATIENT ID: TPiattoly
SAMPLE ID: USAE976780

COLLECTION DATE: 01/31/2022
RESULT DATE: 02/08/2022
PROVIDER: Tavis Piattoly
ACCOUNT: Consumer

Your Trans Fat Index

Reference Range*: 0.30% - 1.70%

0.33%



* Reference Ranges encompass about 99% of fatty acids levels measured in US adults. Visit our [FAQ](#) section for more information on ranges.

Complete Fatty Acid Report

NAME: Tavis Piattoly
 DOB: 03/05/1982
 PATIENT ID: TPiattoly
 SAMPLE ID: USAE960934
 COLLECTION DATE: 01/31/2022
 RESULT DATE: 02/08/2022
 PROVIDER: Tavis Piattoly
 ACCOUNT: Consumer

| Fatty Acid Group | Whole Blood Level | Reference Range* |
|----------------------------------------|-------------------|-----------------------|
| Omega-3 Fatty Acids | 3.74% | 2.80 - 13.90% |
| <i>Omega-3 Index</i> | 3.90% | 3.00 - 14.10% |
| <i>Alpha-Linolenic (18:3n3)</i> | 0.40% | 0.12 - 1.51% |
| <i>Eicosapentaenoic (EPA, 20:5n3)</i> | 0.51% | 0.18 - 5.91% |
| <i>Docosapentaenoic-n3 (22:5n3)</i> | 1.07% | 0.60 - 2.60% |
| <i>Docosahexaenoic (DHA, 22:6n3)</i> | 1.76% | 1.13 - 6.07% |
| Omega-6 Fatty Acids | 31.42% | 26.20 - 43.50% |
| <i>Linoleic (18:2n6)</i> | 17.20% | 15.05 - 30.40% |
| <i>Gamma-Linolenic (18:3n6)</i> | 0.52% | 0.06 - 0.66% |
| <i>Eicosadienoic (20:2n6)</i> | 0.27% | 0.10 - 0.40% |
| <i>Dihomo-γ-linolenic (20:3n6)</i> | 1.74% | 0.56 - 2.30% |
| <i>Arachidonic (AA, 20:4n6)</i> | 9.99% | 5.46 - 14.30% |
| <i>Docosatetraenoic (22:4n6)</i> | 1.26% | 0.39 - 2.30% |
| <i>Docosapentaenoic-n6 (22:5n6)</i> | 0.43% | 0.10 - 0.75% |
| cis-Monounsaturated Fatty Acids | 28.81% | 16.10 - 30.20% |
| <i>Palmitoleic (16:1n7)</i> | 3.57% | 0.17 - 2.59% |
| <i>Oleic (18:1n9)</i> | 24.62% | 14.60 - 28.10% |
| <i>Eicosenoic (20:1n9)</i> | 0.16% | 0.10 - 0.60% |
| <i>Nervonic (24:1n9)</i> | 0.47% | 0.20 - 1.80% |
| Saturated Fatty Acids | 35.56% | 30.60 - 41.10% |
| <i>Myristic (14:0)</i> | 0.92% | 0.12 - 2.13% |
| <i>Palmitic (16:0)</i> | 22.04% | 17.94 - 26.40% |
| <i>Stearic (18:0)</i> | 11.41% | 8.80 - 14.40% |
| <i>Arachidic (20:0)</i> | 0.20% | 0.10 - 0.50% |
| <i>Behenic (22:0)</i> | 0.55% | 0.20 - 1.35% |
| <i>Lignoceric (24:0)</i> | 0.45% | 0.23 - 1.80% |
| Trans Fatty Acids | 0.47% | 0.30 - 1.90% |
| <i>Trans Palmitoleic (16:1n7t)</i> | 0.05% | 0.01 - 0.43% |
| <i>Trans Oleic (18:1t)</i> | 0.17% | 0.11 - 1.20% |
| <i>Trans Linoleic (18:2n6t)</i> | 0.25% | 0.08 - 0.79% |
| <i>Trans Fat Index</i> | 0.42% | 0.30 - 1.70% |
| Ratios | | |
| <i>AA:EPA</i> | 19.7:1 | 1.3:1 - 59.9:1 |
| <i>Omega-6:Omega-3</i> | 8.4:1 | 2.1:1 - 13.6:1 |

* Reference Ranges encompass about 99% of fatty acids levels measured in US adults. Visit our [FAQ](#) section for more information on ranges.

Omega 3 Complete

Measures all 24 Fatty Acids

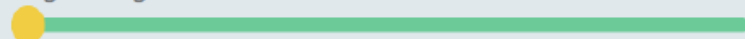
In addition to data from
Omega 3 Plus Test

Omega-3 Index Calculator gives guidance on how much omega-3 EPA+DHA is needed to reach a desirable Omega-3 Index

How much Omega-3 do I need to reach a desirable blood level?



Target Omega-3 Index Level: 8.0%



Current Omega-3 Index Level (%):

3.5

Omega-3 Form (optional):

Ethyl Ester

Triglyceride

Phospholipid

I don't know

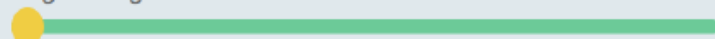
Amount of EPA+DHA needed to reach your target blood level:

2580 mg

How much Omega-3 do I need to reach a desirable blood level?



Target Omega-3 Index Level: 8.0%



Current Omega-3 Index Level (%):

3.5

Omega-3 Form (optional):

Ethyl Ester

Triglyceride

Phospholipid

I don't know

Amount of EPA+DHA needed to reach your target blood level:

1640 mg

How much Omega-3 do I need to reach a desirable blood level?



Target Omega-3 Index Level: 8.0%



Current Omega-3 Index Level (%):

3.5

Omega-3 Form (optional):

Ethyl Ester

Triglyceride

Phospholipid

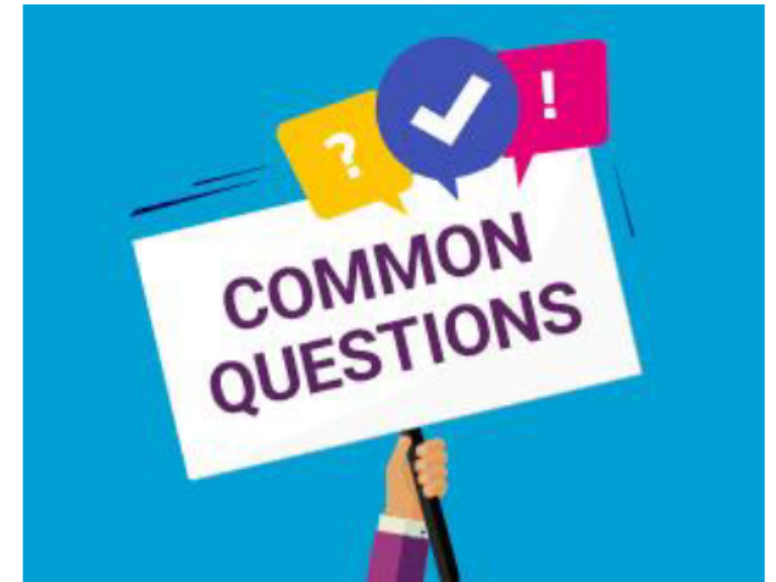
I don't know

Amount of EPA+DHA needed to reach your target blood level:

1640 mg

Common Questions

- **Shelf life of test kits?**
 - 2 to 2 ½ years
- **How long is the test sample valid?**
 - 30 days
- **Can I drop ship single test to my patients/customers?**
 - Yes – no minimum required.
- **Can I add additional tests on one card?**
 - Can add 2 additional spots for a discount.
- **How soon do I get my results in my portal?**
 - Omega 3 – 4-5 business days



Sample Test Kit



Blood Collection Kit



blood collection card



lancet



gauze pad



bandage



gauze pad



pre-paid return envelope

INSTRUCTIONS FOR USE

Read all instructions prior to sample collection.

Contents: A, B, C, D, E, F

A. sample collection card
B. lancet
C. gauze pad
D. alcohol pad
E. bandage
F. return envelope

Warning: Persons with bleeding disorders or taking blood thinners should consult with their physician prior to using this kit.

IMPORTANT: The Omega-3 Index Test requires 1 blood spot collected in the center circle. Blood testing requires 2 needles per testing lab. 22 hours before collecting first sample.

USER INSTRUCTIONS:

- Remove all components from the small plastic bag. Locate the collection card with the barcode on the front.
- Register the test kit at omegaquant.com/start using the barcode on the collection card. You will NOT receive your results unless it is registered.**
- Fill out information requested on the collection card.
- Prepare for fingerprint by improving blood flow by washing your hands in warm water and rinsing up and shaking your hand at your side.
- Clean the tip of the finger (index, middle, or ring) with the alcohol wipe. Allow alcohol to dry unassisted.
- Tear off the blue protective lancet cover. Place the lancet lightly on the tip of your clean finger and press downward firmly into your finger until a click is heard.
- Wipe away the first drop of blood with gauze.
- Gently squeeze the finger to allow a blood drop to form. This can take 10-30 seconds - be patient.
- Use the blood drop off your finger onto the collection card into the center circle.**
- When the blood spot is collected, apply pressure to the finger with the gauze pad and bandage the prick site.
- Let the blood spot dry with the flap open for several minutes. Fold the flap on the collection card over to cover the dried blood spot.
- Place the sample collection card in the plastic bag and seal the bag. Place this bag in the pre-paid return mail envelope, then seal on the same day.
- Discard the lancet and other supplies in the trash.

Step by step instructions

Interested in Working with OmegaQuant?

Visit our booth

Contact jason@omegaquant.com

Questions for me? bill@omegaquant.com