

# Welcome to Innate Choice



## Founded by Dr. James Chestnut

- Scientist
- Award Winning Clinician
- Award Winning Author
- International Lecturer

[Dr. Chestnut BIO](#)



**Our**  
**Integrity,**  
**our**  
**Founding Scientific Principles**  
**and our**  
**Gold Standard Criteria for Supplementation**  
**are what make us unique.**



# Integrity



**Dr. James Chestnut**  
**Founder**  
**President**  
**CIO (Chief Integrity Officer)**

We promise to provide **honest information** regarding how to consume sufficient amounts of the required **essential nutrients** with and/or without our products.



# Integrity



**Dr. James Chestnut**  
**Founder**  
**President**  
**CIO (Chief Integrity Officer)**

We promise our priority will always be **education** to **promote informed health decisions** not marketing to promote product sales.



# Integrity



**Dr. James Chestnut**  
**Founder**  
**President**  
**CIO (Chief Integrity Officer)**

We promise we will never sell or promote a supplement unless it meets our **Gold Standard** criteria for product development.



## The Gold Standard Criteria for Supplementation:

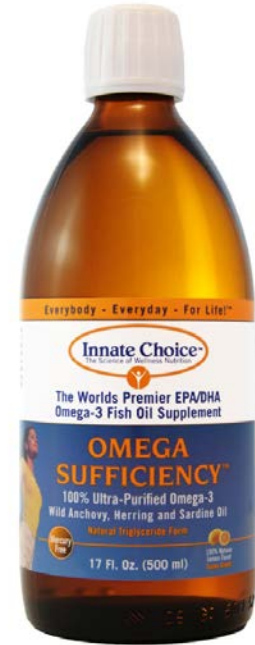
1. The supplement must represent an essential nutrient complex.
2. There must be a BODY of RESEARCH indicating that there is a DIETARY deficiency of the nutrient complex.
3. There must be a BODY of RESEARCH indicating that sufficient intake is unlikely to be achieved with a sustainable dietary alteration.
4. There must be a BODY of RESEARCH supporting the effectiveness of supplementation for HEALTH, PERFORMANCE and PREVENTION.
5. The supplement must be delivered in the most naturally occurring, most genetically compatible, purest, most beneficial form possible. It must be a nutrient complex made in nature NOT a synthetic complex made in a chemical lab.



# Gold Standard

## Omega Sufficiency™

### EPA/DHA Omega-3 Essential Fatty Acids



# The Gold Standard Criteria for Supplementation

1. The supplement must represent an essential nutrient complex.



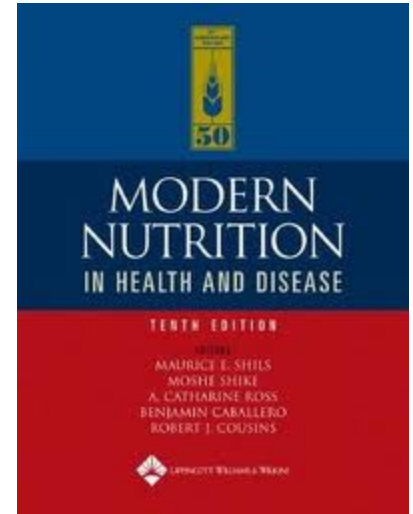


**FACT:** EPA and DHA Omega-3 fatty acids are essential nutrients and humans can not be healthy without sufficient consumption.



**Essential fatty acids**, or **EFA**s, are fatty acids that humans and other animals must ingest because the body requires them for good health but cannot synthesize them.

The term "essential fatty acid" refers to fatty acids required for biological processes, and not those that only act as fuel.



Robert S. Goodhart and Maurice E. Shils. *Modern Nutrition in Health and Disease* 6th Ed. (1980). Lea and Febinger. Philadelphia.

Omega-3 fatty acids cannot be made by human cells and thus require ingestion in the diet. Omega-3 fatty acids are classified as essential nutrient complexes.

Humans cannot properly express health or prevent disease without sufficient intake of these nutrients.

|  <b>The American Journal of<br/>CLINICAL NUTRITION</b><br><i>A Publication of the American Society<br/>for Nutrition</i>  |  |
|---|--|
| OCTOBER 2011 • VOLUME 94 • NUMBER 4   |  |
| <b>EDITORIALS</b><br>n-3 fatty acids and breast cancer: comparison of results from food<br>intake and blood fatty acid measurements in the UK Dietary<br>Survey Cohort Study. 1545<br>See corresponding article on page 1555.   |  |
| <b>ORIGINAL RESEARCH COMMUNICATIONS</b><br><b>Obesity and eating disorders</b><br>Women with bulimia nervosa exhibit altered secretion of<br>ghrelin-like peptide-1, ghrelin-like peptide-2, and insulin<br>in response to a meal. 1555<br>See corresponding article on page 1565.              |  |
| <b>Cardiovascular disease risk</b><br>Effect of low doses of long-chain n-3 PUFA on endothelial<br>function and plasma lipids in a randomized controlled trial. 1565<br>See corresponding article on page 1575.   |  |
| <b>Nutritional status, dietary intake, and body composition</b><br>Use of rapid spectrophotometry to identify adults<br>malnourished after consumption of specific foods. 1575<br>See corresponding article on page 1585.   |  |
| <b>Carbohydrate metabolism and diabetes</b><br>Calculating meal glycemic index by using measured and<br>published food values compared with directly measured<br>meal glycemic index. 1585<br>See corresponding article on page 1595.   |  |
| <b>Contributions of fat and protein to the insulin effect of a<br/>         mixed meal. 1595</b><br>See corresponding article on page 1605.   |  |
| <b>Minerals, vitamins, and phytochemicals</b><br>The absorption and retention of vitamin D from an<br>ergocalciferol-enriched food supplement. 1605<br>See corresponding article on page 1615.  |  |
| <b>Growth, development, and reproduction</b><br>Infant (3) deficiency and age of menarche: a prospective<br>study. 1615<br>See corresponding article on page 1625.  |  |
| <b>Digestive and liver diseases</b><br>Low homocysteine and age-dependent increase in plasma<br>homocysteine in a Chinese population with altered<br>plasma homocysteine. 1625<br>See corresponding article on page 1635.   |  |
| <b>Genetic contributions of fat and vegetable<br/>         consumption to blood pressure and cardiovascular<br/>         disease risk. 1635</b><br>See corresponding article on page 1645.  |  |
| <b>Dietary supplements</b><br>Calcium and vitamin D supplements and health outcomes:<br>a meta-analysis of the literature. 1645<br>See corresponding article on page 1655.  |  |

Connor, W.E. Importance of n-3 fatty acids in health and disease. Am J Clin Nutr, 2000 71(1): 171S-175S

Omega-3 fatty acids are essential fats that carry with them significant health benefits.

In addition to their role in helping our heart and brains function properly, these fats also help protect our genetic material, therefore reducing damage associated with aging.



Farzaneh-Far et al. Association of Marine Omega-3 Fatty Acid Levels With Telomeric Aging in Patients With Coronary Heart Disease *JAMA*. 2010;303(3):250-257.

## **Omega-3 fatty acids are essential fats that play a critical role in virtually every human function including:**

- growth and development
- brain and nerve function
- emotions and behavior
- maintenance of skin and bones
- regulation of healing & inflammation
- cholesterol levels
- digestion
- heart function
- immune function
- vision

**Connor, W.E. Importance of n-3 fatty acids in health and disease. Am J Clin Nutr, 2000 71(1): 171S-175S**



## The Gold Standard Criteria for Supplementation

2. There must be a BODY of RESEARCH indicating that there is a DIETARY deficiency of the nutrient complex.



**FACT:** The Industrial diet is DANGEROUSLY DEFICIENT in EPA/DHA Omega-3 fatty acids and dangerously toxic with Omega-6 fatty acids.

This dietary ingestion pattern is implicated as a causal factor in alarming numbers of preventable illnesses and disease-related deaths worldwide.



“Western diets are deficient in omega-3 fatty acids, and have excessive amounts of omega-6 fatty acids compared with the diet on which human beings evolved and their genetic patterns were established.”



**Simopoulos AP. The importance of the ratio of omega-6/omega-3 essential fatty acids. *Biomed Pharmacother.* 2002;56:365–379**



Although most people in developed countries get plenty of calories daily, their diets are often lacking in key nutrients that their bodies have evolved to require for health and prevention. When deficient intake of such essential nutrients occurs lack of health results.

Omega-3 fatty acids such as those found in fish and wild game are important examples.



Harmon, K. Diets Low in Omega-3 Linked to Depressive Behavior in Mice. *Scientific American* Jan. 2011.

The healthy ratio of omega-6 to omega-3 essential fatty acid intake is 1:1. Because of the changes in diet in the industrial world (increased human consumption of grains and grain products and grain fed industrially farmed meat vs wild game) there is widespread deficiency in the intake of omega-3 fatty acids and overconsumption of omega-6. The omega-6 to omega-3 intake ratio is now very dangerously at 11:1 or higher.



Eaton, Eaton & Konner. Paleolithic nutrition revisited: A twelve year retrospective on its nature and implications. Eur J. of Clin Nutr. 1997; 51;207-216



## The Gold Standard Criteria for Supplementation

3. There must be a **BODY** of **RESEARCH** indicating that sufficient intake is unlikely to be achieved with a sustainable dietary alteration.



**FACT:** Neither sufficient consumption of EPA and DHA omega-3 fatty acids nor a proper ratio of consumption of omega-6 to omega-3 fatty acids is likely to be achieved in industrial society without supplementation with omega-3 fatty acids.

**FACT:** Industrial humans consume far too much omega-6 containing grains, vegetable oils, and grain fed meats and virtually no omega-3 containing wild game.

**FACT:** Industrial humans cannot safely obtain sufficient omega-3 levels from consuming fish because both wild and farmed fish contain too many contaminants. Daily consumption of unsalted sardines or sockeye salmon would be the exception.

**FACT:** Industrial humans cannot simply take ALA omega-3 fatty acids from flax or other vegetable sources because such sources contain no EPA or DHA essential fatty acids and humans are unable to sufficiently convert ALA into EPA and DHA.



**FACT:** Humans are genetically required to ingest sufficient levels of preformed EPA and DHA omega-3 fatty acids in our diet, primarily through the consumption of wild game which is rich in these essential nutrients.





Industrial and commercial farming methods, because they feed animals wheat, corn, and soy, produce animals that are virtually devoid of omega-3 fatty acids and high in unhealthy types of omega-6 fatty acids.

Eaton, S. & Konner, M. 1985  
Paleolithic Nutrition: A  
consideration of its nature and  
current implications. N. Eng. J.  
Med. 312, 283-289

In industrial nations the increased consumption of grains, vegetable oils, and grain fed meat with the simultaneous decrease in consumption of wild game has resulted in significant increases of omega-6 fatty acid intake and significant decreases in omega-3 intake. The omega-6 intake is now more than 11 times that of omega-3; it should be equal.



**Eaton, Eaton & Konner.  
Paleolithic nutrition revisited: A  
twelve year retrospective on its  
nature and implications. Eur J.  
of Clin Nutr. 1997; 51:207-216**

## **US Food and Drug Administration: What You Need to Know About Mercury in Fish and Shellfish. March 2004**

Nearly all fish and shellfish contain traces of mercury. However, larger fish that have lived longer have the highest levels of mercury because they have had more time to bio-accumulate.

Some fish and shellfish contain higher levels of mercury that may harm an unborn baby or young child's developing nervous system. The Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) are advising women who may become pregnant, pregnant women, nursing mothers, and young children to avoid some types of fish.





Humans are genetically incapable of converting LNA Omega-3 fatty acids from flax or other vegetable sources into sufficient amounts of EPA and DHA. Our human ancestors never gathered flax or other vegetable sources and made it into oil to consume and thus we never developed the ability to convert LNA to EPA and DHA. We are genetically designed to ingest preformed EPA and DHA and this is why they are classified as essential nutrients - we cannot synthesize them.



Eaton et al. The return of n-3 fatty acids into the food supply. Land based animal food products and their health effects. 1998 World Rev. Nutr. Diet. Vol 83, 12-23

The parent fatty acid ALA (18:3n-3), found in vegetable oils such as flaxseed or rapeseed (canola) oil, is not reliably converted to DHA.

“Studies in humans have shown that whereas a certain, though restricted, conversion of high doses of ALA to EPA occurs, conversion to DHA is severely restricted.”



Gerster, H. Can adults adequately convert alpha-linolenic acid (18:3n-3) to eicosapentaenoic acid (20:5n-3) and docosahexaenoic acid (22:6n-3)? Int J Vitam Nutr Res 1998. 68(3): 159-73.

## Omega 3 Fatty Acids

No EPA or DHA → Alpha-Linolenic Acid (LNA or ALA) ← No EPA or DHA  
(flaxseed or canola oil)

Rate Limiting Step → delta-6-desaturase enzyme ← Too Slow in Humans

Steridonic Acid

Eicosatreanoic Acid

Fish Oil → Eicosapentaenoic Acid (EPA) ← Fish Oil

Fish Oil → Docosahexaenoic Acid (DHA) ← Fish Oil



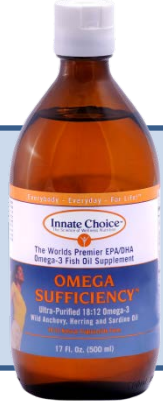
“This low capacity is clear in dietary supplementation studies with ALA (flax oil), in which plasma DHA does not change significantly even in relation to high intakes (**9-21 GRAMS per DAY**) of ALA for up to 6 weeks”



Freemantle, E et al. Omega-3 fatty acids, energy substrates, and brain function during aging. Prostaglandins, Leukotrienes and Essential Fatty Acids 75 (2006) 213-220

**Singh, M. Essential Fatty Acids, DHA and Human Brain. Indian J Pediatr 2005; 72(3):239-242**

Humans do not have the metabolic capability to convert vegetable sources of omega-3 such as LNA or ALA into DHA. As DHA is so crucial for human brain development it is imperative that preformed DHA be consumed by pregnant and nursing mothers and children.

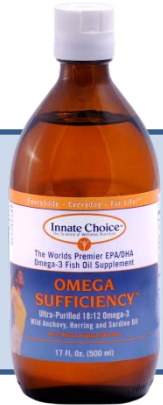


**Gold Standard** \*Because Omega Sufficiency is so pure and natural it is completely safe for pregnant and nursing mothers, infants, and children.



**Gerster, H. Can adults adequately convert alpha-linolenic acid (18:3n-3) to eicosapentaenoic acid (20:5n-3) and docosahexaenoic acid (22:6n-3)? Int J Vitam Nutr Res 1998. 68(3): 159-73.**

With a diet rich in Omega-6 PUFA (the typical diet in the Industrial world) conversion of ALA (18:3n-3) found in vegetable oils such as flaxseed or rapeseed (canola) oil to EPA and DHA is reduced by a further 40 to 50%.



**Gold Standard** \*Omega Sufficiency fish oil provides up to 200 times more EPA and DHA per gram than flax or canola oil!



## The Gold Standard Criteria for Supplementation

4. There must be a **BODY** of **RESEARCH** supporting the effectiveness of supplementation for **HEALTH, PERFORMANCE** and **PREVENTION**.





**FACT:** There is unequivocal scientific evidence regarding both the effectiveness and necessity of supplementation of EPA and DHA omega-3 fatty acids for health, performance, and prevention.







**Stevens, LJ et. al. Omega-3 fatty acids in boys with behavior, learning, and health problems. *Physiol Behav.* 1996 59(4/5) 915-920.**

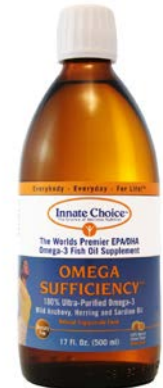
“A Purdue University study showed that kids low in Omega-3 essential fatty acids are significantly more likely to be **hyperactive**, have **learning disorders**, and to display **behavioural problems**.”



## Connor, W. Importance of n-3 fatty acids in health and disease. Am J Clin Nutr 2000; 71 (suppl): 171S-175S

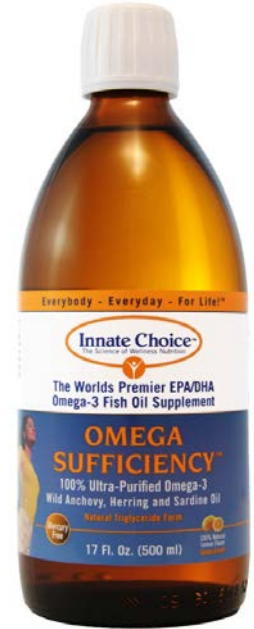
**The following is a partial list of diseases that may be prevented or ameliorated with sufficient intake of omega-3 fatty acids:**

- 1) coronary heart disease and stroke;
- 2) essential fatty acid deficiency in infancy (retinal and brain development);
- 3) autoimmune disorders (e.g. lupus and nephropathy);
- 4) Crohn disease;
- 5) cancers of the breast, colon, and prostate;
- 6) mild hypertension; and
- 7) rheumatoid arthritis.



**Ntambi, J.M. & Bene, H. Polyunsaturated fatty acid regulation of gene expression. J Mol Neuroscience 2001 Apr-Jun; 16 (2-3): 273-8**

By affecting cell membrane composition, metabolism, signal pathways, and by direct control of gene expression, sufficient omega-3 essential fatty acid levels play a key role in the prevention of human diseases such as obesity, diabetes, cancer, neurological and brain disorders, and heart disease.



**Bronas, U. & Dengel, D. Influence of vascular oxidative stress and inflammation on the development and progression of atherosclerosis. Am J Lifestyle Med. 2010; 4:521-34**

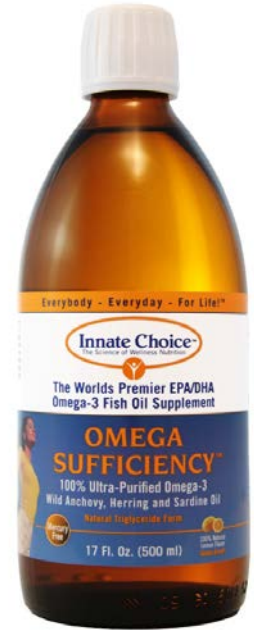
Due to the overwhelming evidence of benefit, the American Heart Association now recommends the **use of omega-3 fatty acid supplements** for the primary and secondary prevention of coronary heart disease.



**Studer et al. 2005 Effect of Different Antilipidemic Agents on Mortality: A Systematic Review. Archives of Internal Medicine. April 11, 725-730**

Statin Drugs (e.g. lipitor, crestor, etc) were 10 times more effective at lowering cholesterol than omega-3 fatty acids (20% vs 2% reduction in total cholesterol).

**BUT, omega-3 fatty acids were 44% more effective than statin drugs in reducing death from cardiac events!!**



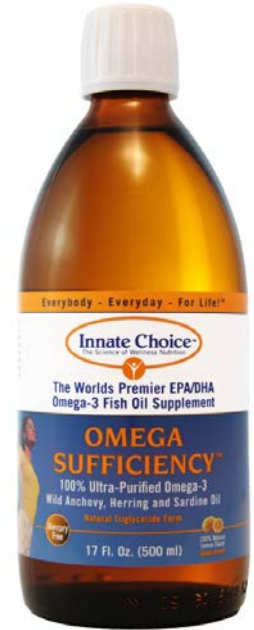
1. Lewis, MD, et. al. Suicide deaths of active-duty US military and omega-3 fatty acid status: a case control comparison. J Clin Psychiatry 2011 online ahead of print August 23, 2011.
2. Mozaffarian, D. Fish intake, contaminants, and human health: evaluating the risks and benefits part 1 – health benefits. Cardiology Rounds October 2006, Volume 10, issue 8.
3. Larsson, SC et. al. Dietary long-chain n-3 fatty acids for the prevention of cancer: a review of potential mechanisms. Am J Clin Nutr 2004;79:935-45.
4. Goldberg, RJ and Katz, A meta-analysis of the analgesic effects of omega-3 polyunsaturated fatty acid supplementation for inflammatory joint pain. Pain 129 (2007) 210-233.
5. Stevens, LJ et. al. Essential fatty acid metabolism in boys with attention-deficit hyperactivity disorder. Am J Clin Nutr. 1995;62:761-8.
6. Harris, W. & Isley, W. Clinical evidence for the cardioprotective effects of omega-3 fatty acids. Current Atherosclerosis Reports. 2001 Mar;3(2):174-9.

Omega-3 deficiencies have also been tied to many conditions, including the following: dyslexia, violence, (suicide), depression, memory problems, abnormal neurological development in children, weight gain, cancer, heart disease, eczema, allergies, asthma, inflammatory diseases, arthritis, and diabetes.<sup>1-6</sup>



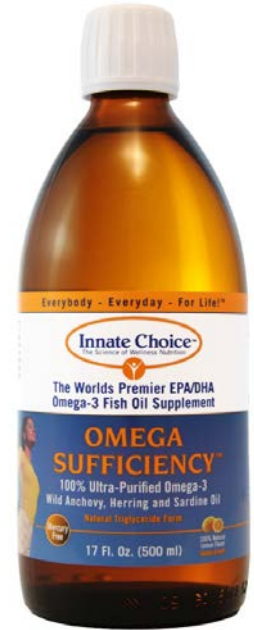
**Larsson, SC, et.al. Dietary long-chain n-3 fatty acids for the prevention of cancer: a review of potential mechanisms. Am J Clin Nutr 2004;79:935-45.**

Omega-3 fatty acids lower the risk of cancer through their suppressing effect on the biosynthesis of eicosanoids (molecules from omega-6 fatty acids that promote inflammation, suppress the immune cells that eliminate cancer cells, and stimulate cancer cell growth).



**Farzaneh-Far et al. Association of Marine Omega-3 Fatty Acid Levels With Telomeric Aging in Patients With Coronary Heart Disease *JAMA*. 2010;303(3):250-257.**

Sufficient levels of omega-3 fatty acids are associated with less shortening of telomeres (protective caps on the end of chromosomes) and thus decreased rate of aging.





**Horrocks, L.A. & Yeo, Y.K. (1999) Health benefits of docosahexaenoic acid (DHA) Pharmacol Res. Sep; 40 (3): 211-25**

Docosahexaenoic acid (DHA) is essential for the growth and functional development of the brain in infants. DHA is also required for maintenance of normal brain function in adults.

DHA deficiencies are associated with fetal alcohol syndrome, attention deficit hyperactivity disorder, cystic fibrosis, unipolar depression, and aggressive hostility.

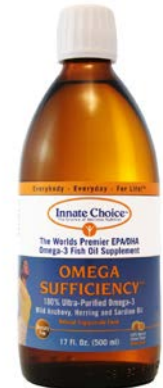
Decreases in DHA in the brain are associated with cognitive decline during aging and with onset of sporadic Alzheimer disease.



## **Stebbins et al. 2010 Effects of Dietary Omega-3 Polyunsaturated Fatty Acids on the Skeletal Muscle Blood-Flow Response to Exercise in Rats. Int. J. Sports Nutr and Ex. Metab. Vol 20, (6)**

“The polyunsaturated fatty acids docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA) affect vascular relaxation and involve factors (e.g., nitric oxide) that contribute to exercise-induced increases in skeletal-muscle blood flow.”

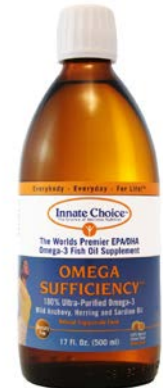
**Supplementation with DHA+EPA significantly enhances exercise performance!**



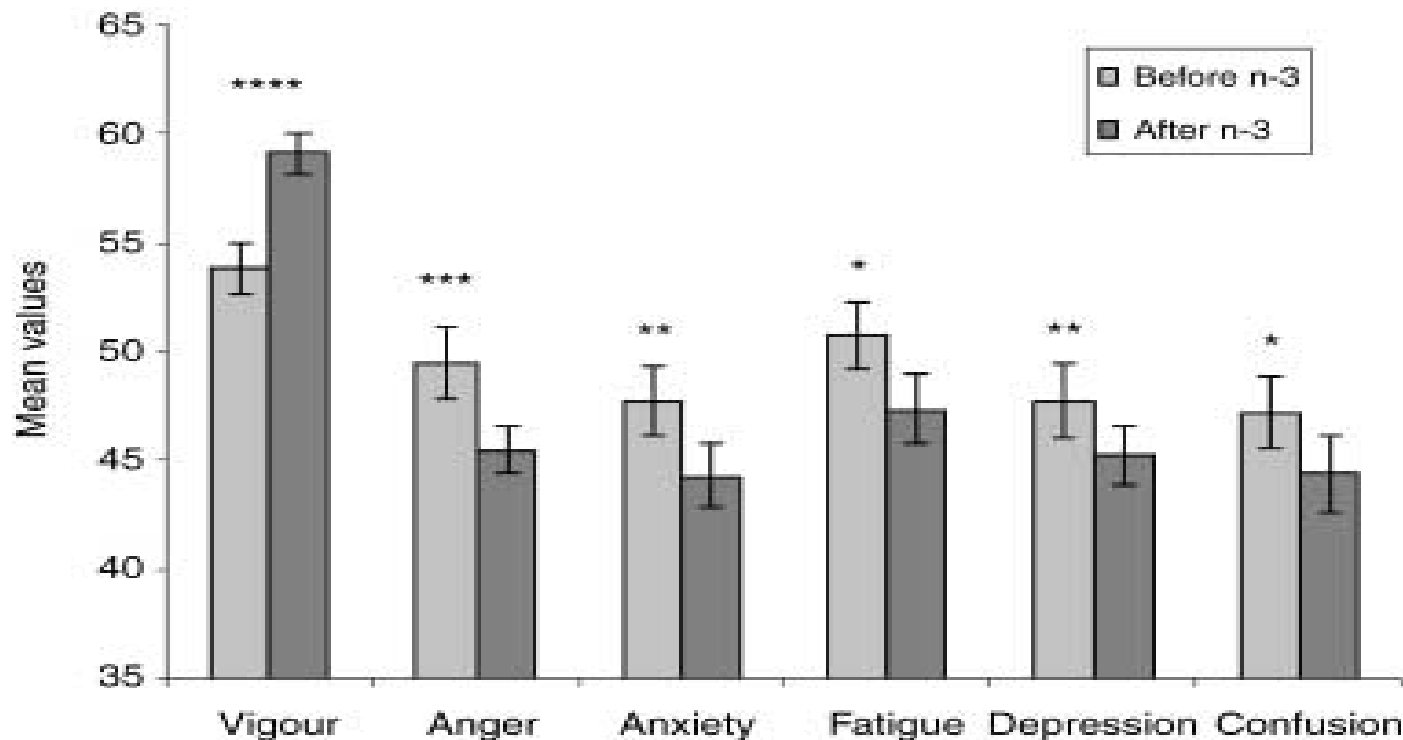
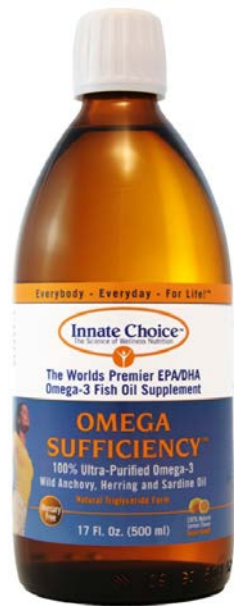
**Fontani, et al. Cognitive and physiological effect of Omega-3 fatty acid supplementation in healthy subjects. Eur J Clin Invest 2005; 35(11): 691-99**

“Besides influencing membrane fluidity, Omega-3 fatty acids can modify the activity of membrane bound enzymes, the number and affinity of receptors, the function of ion channels, the production and activity of neurotransmitters, and signal transduction.”

**Omega-3 fatty acids enhance both the vascular and neurological components of muscular performance!**



Fontani, et al. Cognitive and physiological effect of Omega-3 fatty acid supplementation in healthy subjects. Eur J Clin Invest 2005; 35(11): 691-99



## **The Gold Standard Criteria for Supplementation**

- 5. The supplement must be delivered in the most naturally occurring, most genetically compatible, purest, most beneficial form possible. It must be a nutrient complex made in nature not a synthetic complex made in a chemical lab.**



**FACT:** Your body requires the full complement of fatty acids found in fish and EPA and DHA essential fatty acids in the ratio and triglyceride forms that naturally occur in the foods we are designed to consume. This is what is genetically required by your cells for health, prevention, and performance.

Humans have never chemically altered naturally occurring food and made it healthier. We will never change what is naturally occurring and make it more genetically suitable for human consumption.



# Gold Standard

**Omega Sufficiency** maintains the full complement of naturally occurring fatty acids and the natural EPA:DHA ratio. The naturally occurring triglyceride structure is also maintained.



# Gold Standard

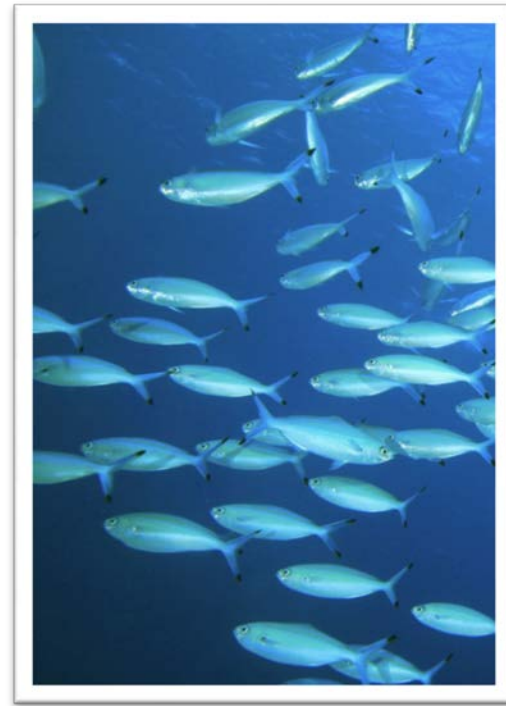
**Omega Sufficiency** is triple molecularly distilled and ultra-purified to pharmaceutical grade and then immediately infused with antioxidants ensuring maximum purity and freshness. We have every batch third party tested and we publicly post these results.





# Gold Standard

**Omega Sufficiency** is derived exclusively from wild anchovy, herring and sardine from pristine cold waters.



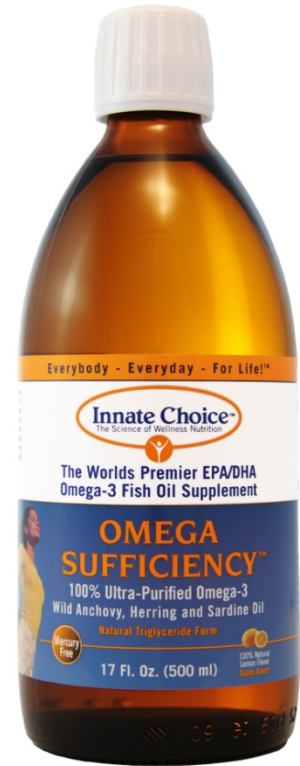
## Gold Standard

**Omega Sufficiency** is sourced from a sustainable, highly regulated fishery. Only a very small percentage of the current anchovy, sardine, and mackerel harvest goes toward fish oil for humans. The vast majority of the harvest has been for pet food, fertilizers and other non-human use. Without increasing the harvest at all there is HUGE potential to sustainably increase the production of fish oil for human consumption.













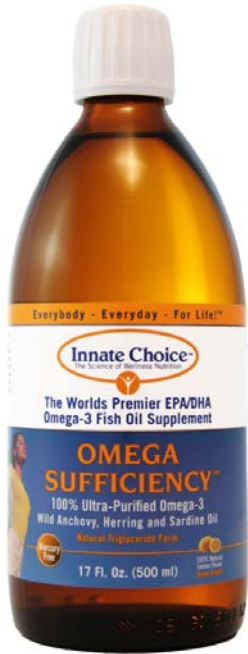
# Gold Standard

**Omega Sufficiency** is flavored with natural lemon flavoring and actually tastes and smells great! The freshness and purity mean that there is no oxidation or contaminants to cause unpleasant taste, odor, or digestive repeats.



# The Gold Standard Criteria for Supplementation

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4.  There must be a BODY of RESEARCH supporting the effectiveness of supplementation for HEALTH, PERFORMANCE and PREVENTION. 
5.  The supplement must be delivered in the most naturally occurring, most genetically compatible, purest, most beneficial form possible. It must be a nutrient complex made in nature NOT a synthetic complex made in a chemical lab. 



Omega Sufficiency sets the **Gold Standard** for a natural ratio, full fatty acid complement, natural triglyceride form, contaminant-free Omega 3 fish oil. Our unwavering dedication to quality and purity is what makes Innate Choice Omega Sufficiency the Natural Choice for EPA and DHA essential fatty acid supplementation.



# Gold Standard

Omega Sufficiency is available in **Liquid** (lemon) or **Gel Capsule** (lemon or strawberry/lime).



## Gold Standard

For just a few seconds and a few pennies a day you can improve your health, performance, and prevention. There is simply no easier or more affordable way to invest in and improve your health!



**FACTS:** Becoming sufficient in Omega-3 essential fatty acids is required to GET well and GET performing better.

Staying sufficient in these essential nutrients is required to STAY well and STAY performing well.



The advertisement features the Innate Choice logo at the top. Below it, the name "Lori Bowden" is written in a large, bold, orange serif font. Underneath her name, the text "Two Time Ironman Triathlon World Champion and Hall of Fame Athlete!" is written in a smaller, black, sans-serif font. To the left of the text is a photograph of Lori Bowden wearing a yellow and black cycling helmet and a yellow and black triathlon suit, riding a bicycle. To the right of the photograph is a quote in a cursive font: "No parent, child or athlete can perform their best without these essential nutrients." Below the quote are two bottles of Innate Choice Omega Sufficiency supplement: a blue bottle and an orange bottle. At the bottom of the advertisement, the text "Everybody - Everyday - For Life!™" is written in a white, sans-serif font on a blue background.

**Innate Choice®**  
The Science of Wellness Nutrition

**Lori Bowden**  
Two Time Ironman Triathlon World Champion  
and Hall of Fame Athlete!

*"No parent, child or athlete can perform their best without these essential nutrients."*

**Everybody - Everyday - For Life!™**



# Who Needs to Supplement With Innate Choice Omega Sufficiency?

**EVERYBODY - EVERYDAY - FOR LIFE!™**



# Welcome to Innate Choice

- Ethically Driven
- Scientifically Valid
- Clinically Effective



## **Dr. James Chestnut**

- Scientist
- Award Winning Clinician
- Award Winning Author
- International Lecturer
- **Founder of Innate Choice**



[Dr. Chestnut BIO](#)