NORDIC NATURALS FISH OIL FAQ'S

WHAT ARE ESSENTIAL FATTY ACIDS (EFAs), & WHY DO WE NEED TO TAKE OMEGA-3 EFAs?

Essential fatty acids (EFAs) are polyunsaturated fats that our bodies need but cannot produce. Therefore, they must be consumed through food or supplements. There are two families of EFAs: omega-3 and omega-6, which need to be consumed in a balanced ratio. The body must receive a balanced supply of omega-3 and omega-6 EFAs to ensure proper eicosanoids production. Eicosanoids are hormone-like compounds that affect virtually every system in the body—they regulate pain, help maintain proper blood pressure and cholesterol levels, and promote fluid nerve transmission. The problem is that, in our modern industrialized food system, omega-3s have become largely absent from the food chain while omega-6s have become overabundant. Even the healthiest diets contain too many omega-6s and not enough omega-3s. Decades of scientific evidence indicates that this EFA imbalance can contribute to a variety of chronic health issues. The most beneficial omega-3s that we're missing are EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid).

WHAT ARE POSSIBLE SIGNS OF OMEGA-3 DEFICIENCY?

- Fatigue
- Poor memory
- Immune weakness
- Dry skin, eczema, or hair loss
- Heart problems
- Reproductive problems (men and women)
- Mood swings or depression
- Poor circulation

CAN WE GET ENOUGH OMEGA-3s FROM THE FOOD WE EAT?

Fish is the primary food source of the omega-3s EPA and DHA, but Americans simply don't eat enough fish on a regular basis. Even those who eat fish several times a week aren't getting enough EPA and DHA because much of the fish consumed today is farm raised and lacks significant amounts of EPA and DHA. Also, many people are increasingly avoiding fish due to growing concerns about environmental toxins in fish (such as mercury, dioxins, PCBs, etc.). In addition, there are several factors that can lead to a reduced absorption of EFAs—age, poor diet, alcohol consumption, low levels of certain vitamins and minerals, some prescription drugs, compromised immune status, and a diet high in saturated and/or trans-fatty acids (meat, dairy, fast food, fried food, baked goods, and processed foods). Moreover, people with health challenges or those who are currently deficient often require a minimum of 2–4 grams a day of EPA and DHA, which is difficult to obtain from fish alone.

WHAT IS THE RELEVANCE OF BALANCING THE OMEGA-6:OMEGA-3 RATIO?

Over the past 100 years, changes in the food supply in Western nations have altered the type of dietary fatty acids we consume, leading to a dramatic increase in the ratio of omega-6 to omega-3 fatty acids. This increased omega-6:omega-3 ratio is known to influence a poor nutritional state that contributes to higher incidences of many chronic diseases. To address this omega-6:omega-3 imbalance, current recommendations suggest increasing the consumption of pre-formed omega-3s EPA and DHA in fish and/or fish oils, increasing intake of ALA (an omega-3 alpha-linolenic acid found in vegetables, flax, fruits) and decreasing intake of LA (the omega-6 linoleic acid in meat, dairy, eggs, vegetable oils).

IF WE GET TOO MUCH OMEGA-6 IN OUR DIET, THEN WHY DOES NORDIC NATURALS OFFER PRODUCTS THAT CONTAIN AN OMEGA-6 (e.g. NORDIC GLA, COMPLETE OMEGA, OMEGA WOMAN)?

Omega-6 fatty acids (Linoleic Acid or LA) are found mainly in corn, soybean, safflower, and sunflower oils and, although essential, these fatty acids are over consumed and out of balance with omega-3 fatty acids in the modern Western food supply. For these reasons, omega-6 supplementation is not needed for non-strict-vegan westerners. However, there is one type of omega-6 (Gamma Linolenic Acid, or GLA) that does require supplementation. GLA is found in few sources such as borage and evening primrose oils. Used in some Nordic Naturals formulas, GLA promotes the production of beneficial prostaglandins and supports healthy skin, brain function, mood, joint, and cardiovascular health. It is most effective when taken along with the EPA and DHA in fish oil.*

DO PREGNANT WOMEN NEED OMEGA-3s?

It is especially important for pregnant and breastfeeding women to consume DHA (one of the omega-3s in fish oil) because the developing baby is dependent on mom! DHA is an essential fatty acid—we must get it from diet or supplements because our bodies don't make it—and consuming enough DHA is critical for normal and healthy development of infant brain, eyes, and nervous system. Inadequate consumption of DHA during pregnancy has been linked to shortened gestational periods and premature delivery, and sub-optimal mood health for women after pregnancy.* Experts recommend that women consume 300–600 mg of DHA daily while pregnant and breastfeeding. Nordic Naturals DHA, Prenatal DHA, and Ultimate Omega all satisfy this dosage, each providing 450 mg DHA per serving. As with any supplement, it is best to consult your health care professional.

HOW SOON WILL I SEE RESULTS FROM SUPPLEMENTING WITH OMEGA-3 FISH OIL?

It will vary depending on the concentration of the fish oil, your current nutritional state, dosage, and current health. We often hear that our customers "feel better" and experience "clearer thinking" and "enhanced well being" within 2 weeks. For optimal results, we recommend you take our fish oil daily for at least two months to evaluate their benefits, and also reduce your intake of saturated, hydrogenated, and trans-fats.

WHAT ABOUT OTHER BENEFICIAL OMEGA FATTY ACIDS LIKE OMEGA-5s, OMEGA-7s, OMEGA-9s? DO WE NEED THOSE TOO?

All non-concentrated fish oils contain a myriad of other omega fatty acids besides the omega-3s EPA and DHA. The average fish oil contains 23 omega fatty acids. Any quality fish oil manufacturer should be able to provide a chromatogram listing the levels of all the omega fatty acids found in their fish oil. Often, when fish oil is concentrated, some of these other fatty acids will be removed in order to increase the amounts of EPA and/or DHA. You often hear the most about the omega-3s EPA and DHA because those are the fatty acids that have been shown, by decades of scientific research, to yield important health benefits for every cell, organ, and system in the body, and are considered the most functional omega-3s. And they are also drastically deficient in the food supply of Western nations, making it very difficult for us to get adequate amounts from our diet.

WHAT SHOULD I LOOK FOR WHEN PURCHASING A FISH OIL SUPPLEMENT TO ENSURE HIGH QUALITY?

Third-party test results for purity and freshness. A third-party certificate of analysis indicates the levels of purity from environmental toxins, and the oxidation level (or freshness) of the oil.

Manufacturing standards. Is the fish oil manufactured according to international quality standards?

Smell and taste. Does the fish oil smell or taste fishy? If so, the fish oil has most likely been exposed to oxygen and is becoming rancid. Rancid (oxidized) oils should be avoided, as they yield less-than-healthy effects. Avoid fish oils that have really strong flavorings added to them because they are most likely trying to hide the fishy flavor of rancid oil.

Triglyceride molecular form. Research has shown that triglyceride form omega-3s are up to 70% better absorbed than synthetic ethyl ester omegas.

Supportive scientific research to prove the efficacy of the fish oil brand.

Sustainable fishing practices. Any environmentally responsible fish oil manufacturer should offer transparency into their fishing practices.

WHAT IS THE DIFFERENCE BETWEEN FISH OIL AND FLAX SEED OIL?

Omega-3 EFAs fall into two major categories: plant-derived (flax seed oil, containing alpha linolenic acid, or ALA) or marine-derived (fish oil, containing both EPA and DHA). The human conversion of ALA to EPA and DHA is somewhat slow and can be inhibited by various conditions such as a diet high in omega-6, trans-fatty acids such as fast foods and baked goods, alcohol intake, certain health conditions, and vitamin and mineral deficiencies (B3, B6, C, zinc, magnesium). Fish, on the other hand, is a direct source of EPA and DHA. The scientific consensus is that humans only convert about 15% of ALA to EPA, and it may not convert to DHA at all in many people.

WHAT IS THE DIFFERENCE BETWEEN FISH OIL AND KRILL OIL?

Recently, some companies have started selling krill oil supplements as a source of omega-3. Krill are shrimp-like crustaceans that are a crucial link of the marine food chain, and concerns about the ecological impact of increased fishing of krill has

resulted in krill fishing being banned on the West Coast of the US and strictly limited in Norway and Antarctica. In contrast, fish oil supplements are predominantly produced from sardines and anchovies—species that are currently in abundant supply, fished well below mandated limits, and are considered ideal for sustainability, given their short reproductive cycles. Fish oil is not only a more sustainable source for omega-3 supplements, however—it also generally provides a higher concentration of omega-3, is much more stable, and is backed by much more science than krill oil. Fish oil—when manufactured according to international quality standards—has a proven record of efficacy, purity, safety, and sustainability that is backed by several thousand published studies.

WHAT IS THE DIFFERENCE BETWEEN FISH OIL AND EATING FISH?

Many people are justifiably concerned about mercury levels and other environmental toxins in fish, especially larger species. Nordic Naturals fish oils provide you with all the benefits of the omega-3s EPA and DHA, with no risk of toxicity. The fish oil used in every batch of our products is tested by independent laboratories and consistently delivers exceptional results, surpassing the strictest international standards for fish oil purity, freshness and potency. Certificates of Analysis are available upon request.

WHAT IS THE DIFFERENCE BETWEEN FISH OIL AND COD LIVER OIL?

Cod liver oil is extracted from cod livers, whereas fish oil is extracted from the body flesh of fish. While both are good sources of the omega-3s EPA and DHA, they provide different ratios—cod liver oil generally contains about 9% EPA and 14% DHA, whereas fish oil generally contains about 18% EPA and 12% DHA. Another difference is that cod liver oil also generally contains some vitamins A and D.

ARE THERE ANY SIDE EFFECTS TO TAKING FISH OIL?

Generally, none, although we suggest that you consult with your physician before taking our fish oils if you are allergic to iodine, use blood thinner medications, or anticipate surgery. Consumers typically report having more energy and greater mental clarity while taking EFAs. If you experience repeat (burping) or a bad taste, your supplement may be rancid (oxidized), or your body may not be manufacturing enough lipase, the digestive enzyme our bodies make to digest fats and oils. If you haven't ingested fish oils for a long time, it might take a week or so for your body to adjust and make more of this enzyme to digest fats and oils. Taking fish oil with food, especially fat, can also be helpful to digestion.

DOES FISH OIL CONTAIN MERCURY?

Raw fish oils contain environmental toxins like mercury that accumulate in a fish during its life span, but these toxins can be virtually eliminated with the use of high quality raw materials and advanced distillation technologies. Nordic Naturals fish oils are molecularly distilled, utilizing an enzymatic process that removes any potential environmental toxins (such as heavy metals, dioxins, PCBs, etc.). Independent laboratory testing documents the absence of PCBs, heavy metals, and dioxins in our oils. Certificates of Analysis are available upon request.

WILL FISH OIL OR EFAs INTERFERE WITH MY MEDICAL CONDITION OR MEDICATIONS I AM TAKING?

Generally, no, but we suggest that you consult with your healthcare professional before taking fish oil if you are allergic to iodine, using blood thinners, taking high doses of aspirin, or anticipating surgery.

WHAT ALLERGENS ARE PRESENT IN NORDIC NATURALS FISH OILS?

Nordic Naturals recognizes the severity of allergen potential. We follow strict GMP procedures to prevent cross contamination, use FDA-compliant allergen labeling, and disclose any warnings relating to allergen exposure.

While more than 160 foods can cause allergic reactions in people with food allergies, the Food Allergen and Labeling Consumer Protection Act (FALCPA) identifies the eight most common allergenic foods. These foods account for 90 percent of food-related allergic reactions, and are food sources from which many other ingredients are derived.

Nordic Naturals Products are:

- Egg Free
- Tree Nut Free
- Peanut Free
- Wheat Free/Gluten Free
- Crustacean/Shellfish Free

The facilities that process our oils do not handle shellfish-based oil. Care is taken during the fishing process in a method known as “bycatch prevention,” to ensure that shellfish are not handled when handling our raw fish.

Soy Free

The majority of our products contain vitamin E (d-alpha tocopherol) derived from sunflower oil as a natural preservative.

Nordic Naturals always recommends that consumers check with their health care professional to determine which products are appropriate for their nutritional needs.

IF I AM ALLERGIC TO FISH, FISH PROTEIN, LEMON, STRAWBERRY OR OTHER FLAVORS, CAN I TAKE NORDIC NATURALS FISH OIL PRODUCTS?

Fish Protein

In theory, fish proteins should be effectively removed in processing. However, it is certainly possible for fish oils to have small traces of protein. The fish gelatin that is used in our fish gelatin Omega-3 formula, however, is derived from fish protein, and could be considered allergenic.

Strawberry

Our natural strawberry flavoring is NOT derived from strawberry or any other berry fruit, but rather from a combination of natural ingredients, which create an aroma perceived as strawberry flavor.

Lemon

Our natural lemon flavoring is derived from natural lemon oil, concentrated from the rind. Some people do have sensitivities to lemon flavoring. If lemon sensitivity is a concern, this flavor should be avoided.

Alternatives

The best choice for highly sensitive people would be to take our unflavored products. Anyone that is concerned about rosemary extract, which is used as a natural stabilizer and is present in minute amounts, can take our Pet products instead, as these products offer the same high quality fish oil, but only use Vitamin E as a stabilizer.

ARE NORDIC NATURALS PRODUCTS GLUTEN-FREE?

All of our products (as of July ’09) can be considered gluten-free. If any products are manufactured on shared equipment with other ingredients containing gluten, this is disclosed on the product label.

CAN FISH OIL BE TAKEN WITH OTHER SUPPLEMENTS?

Yes, EFAs and fish oil can be taken with a wide variety of supplements—they are extremely well tolerated, natural, health promoting, and safe to use every day.

HOW MUCH IODINE IS IN THE ULTIMATE OMEGA/PROOMEGA?

Nearly all of the iodine naturally present in fish is removed during our purification process. Test results show levels of iodine in Ultimate Omega/ProOmega to be typically 0.5–1.5 mcg/g, and not more than 2.0 mcg/g. For reference, the current Recommended Dietary Allowance* for iodine is 150 mcg/g for adult men and women, 220 mcg/d during pregnancy, and 90 mcg/d for children over 1 year of age.

*Dietary Reference Intakes, USDA Food and Nutrition Information, pages 273–277

WHY IS CARRAGEEN USED IN YOUR VEGETARIAN GELATIN?

The carrageenan we use in our vegetarian gelatin is highly purified, non-degraded, and pharmaceutical food-grade quality. Carrageenan is derived from seaweed and is the substitute for the collagen found in animal gelatin. It is needed—in tandem with cornstarch—to form the firm and shelf-stable soft gel that ensures we are protecting the oil from exposure to oxygen and, therefore, from going rancid. Over the years, various alternatives have been researched and tested. The combination of carrageenan and cornstarch has been found to build the best consumer experience. While there have been various studies on carrageenan, many examine the degraded form (versus our non-degraded form), which does not meet our rigorous standards.

WHAT DOES "PHARMACEUTICAL GRADE" MEAN?

"Pharmaceutical grade fish oil" is defined as purified, winterized, and deodorized fatty oil obtained from fish. Therefore, this term is used to describe the quality of fish oil, encompassing purity (minimal detected contaminants/toxins such as heavy metals, PCBs, and dioxins), freshness (free of oxidative rancidity), and potency (amount of omega-3s contained). Because there are no pharmaceutical grade standards for fish oil in the United States, Nordic Naturals evaluates the fish oil used in its products by the stringent European Pharmacopoeia Standard.

The fish oil used in all Nordic Naturals products is third-party tested to verify that it surpasses these strict standards for purity and freshness, and that it reaches the level of potency claimed on the label. Our certificates of analysis are available upon request. To further ensure the quality of Nordic Naturals fish oil, we produce our fish oil in the triglyceride form, unlike many ethyl ester fish oils on the market today. True triglyceride form ensures that your body recognizes and absorbs the omega-3 essential fatty acids it needs for optimal health, and that your results are consistent. For more information about the triglyceride form, see question below.

WHY ARE THE CALORIES THE SAME EVEN THOUGH THE OMEGA-3 LEVELS ARE DIFFERENT?

All fat/oil contains 9 calories per gram. Nordic Naturals offers fish oil supplements with differing concentrations of the omega-3s EPA and DHA, but the concentration does not affect the amount of fat/oil in each soft gel. Regardless of the omega-3 concentration, a 1000mg soft gel contains 1000mg of oil, and thus contains 9 calories.

WHAT ARE THE "OTHER OMEGA-3*s*" LISTED ON THE LABEL?

The "other omega-3s" listed on Nordic Naturals labels refer to omega-3 fatty acids (other than EPA and DHA) that naturally exist in fish oil in low levels. These "other omega-3s" include fatty acids such as DPA (docospentaenoic acid) and ETA (eicosatetraenoic acid). These fats are involved in essential fatty acid metabolic pathways in the body. EPA and DHA are the best-studied omega-3 fats, and are considered the most functional omega-3s. You will find this information on the label because Nordic Naturals tests each product to know exactly what is in the oil, and is committed to disclosing complete information to our customers.

WHY DOES IT STATE ON SOME LABELS THAT THE PRODUCT IS "DISTILLED FOR PURITY" WHEREAS OTHERS STATE THAT THEY ARE "MOLECULARLY DISTILLED?" IS THERE A DIFFERENCE?

The difference pertains to the type of distillation process used for the product, which depends upon the type/concentration of the product. The labels that state "distilled for purity" contain our non-concentrated fish oil, which is flash distilled. Our Arctic Cod Liver Oils and concentrated fish oils are molecularly distilled, and thus state "molecularly distilled" on the label. The differences between the two distillation processes are explained in more detail in questions below.

WHAT DOES "TRIGLYCERIDE FORM" MEAN? WILL IT RAISE MY TRIGLYCERIDES?

"Triglyceride Form" refers to the molecular form of the fatty acids found in all Nordic Naturals products. In nature, fats are found in triglyceride form. Being a natural form, these triglycerides (as opposed to the new-to-nature ethyl ester form produced by many other manufacturers) are easily assimilated through the digestive process, supporting increased absorption and optimal utilization of the health-promoting omega-3s EPA and DHA. To address the concern of "raising one's triglycerides," we are actually talking about another type of triglyceride. These triglycerides are not from dietary fats, but are produced in the liver in response to high amounts of insulin secreted into the blood stream. High insulin levels in the blood are the result of excessive carbohydrates that have not been used for energy.

WHY DON'T THE MILLIGRAMS OF OMEGA-3s LISTED ON THE BACK OF THE LABEL MATCH WHAT IS LISTED ON THE FRONT OF THE BOTTLE (1000 mg PURIFIED FISH OIL)?

The 1000 mg soft gel (or in some products 500mg) refers only to the size of the soft gel and not to the amount of omega-3s that the soft gels contain. Depending on the concentration of the fish oil in the soft gels, the soft gel can contain anywhere from 28% to 84% omega-3s. For example, one 1000 mg soft gel of a non-concentrated fish oil product like Nordic Naturals Omega-3 provides approximately 345 mg omega-3s. One 1000 mg soft gel of a concentrated fish oil product like Nordic Naturals Ultimate Omega provides approximately 640 mg total omega-3s.

WHAT TYPE OF FISH DOES NORDIC NATURALS USE IN THEIR PRODUCTS?

Since our founding, Nordic Naturals has always been committed to sourcing only fish species that are flourishing and only from waters that are not threatened by overfishing. Nordic Naturals cod liver oil products are made from 100% wild Arctic cod (Skrei) that are sustainably sourced from the Norwegian Sea. All other Nordic Naturals products are made from wild, sustainably sourced sardines and anchovies from the South Pacific Ocean off the coast of Peru.

HOW LONG DOES IT TAKE NORDIC NATURALS TO GET FROM FISH TO SOFT GEL OR BOTTLE?

A primary goal for Nordic Naturals is to optimize freshness levels in our fish oils. We strive to minimize the time from catch to processing, and ideally the fish is processed within hours of being caught. During processing, we consistently monitor freshness levels of the raw material using acidity levels (an accurate measure of freshness). Even though standard acidity allowance is 3.0, Nordic Naturals does not allow more than 1.0. While complete processing may take days, our raw material is protected in a nitrogen environment at every stage of manufacturing to maintain optimal freshness in the final product.

HOW IS THE MERCURY (AND OTHER TOXINS) REMOVED FROM THE FISH OIL?

Molecular distillation removes impurities (heavy metals, dioxins, etc.), saturated fats, and other undesirable organic compounds. Molecular distillation is gentle with exceptionally low heat residence time and is performed in a vacuum to further reduce heat requirement. All time and temperature specifications are proprietary, but we can assure you that no trans fats are created during any of our distillation processes. Any potential impurities and saturated fats are distilled out of the oil, leaving only the key beneficial components of the fish oil. Flash distillation accomplishes the same thing as molecular distillation, but utilizes steam rather than a vacuum. Which process is used depends on the intended concentration of the fish oil. Molecular distillation is used for all of our fish oil products. Flash distillation is used for our non-concentrated fish oils. Independent lab results consistently show that these processing techniques deliver oils of exceptional quality and freshness. Certificates of Analysis are available upon request.

DOES NORDIC NATURALS' MANUFACTURING PROCESS DAMAGE THE FISH OIL OR REMOVE BENEFICIAL COMPOUNDS? DOES IT USE HIGH HEAT?

Molecular distillation (used for all of our fish oil products) removes environmental toxins (like mercury and other heavy metals, dioxins, etc), saturated fats, and other undesirable organic compounds, leaving behind only the key beneficial components of the fish oil. It is a gentle distillation process with exceptionally low heat residence time, and is performed in a vacuum to further reduce the heat requirement. Flash distillation (used for our non-concentrated fish oils) accomplishes the same thing as molecular distillation, but utilizes steam rather than a vacuum.

All fish oil, regardless of the kind of manufacturing process used, needs to be processed in order to remove contaminants and pass minimum laws and standards (such as California's Proposition 65). This process always requires the use of heat. However, heat itself does not cause oxidative damage to the fish oil, it can only affect the rate of oxidation. Without the presence of free radicals or oxygen, there is no oxidation to speed up. This is also why nitrogen-flushed fish oils can handle being shipped, delivered, and stored in even the hottest climates and still taste great.

Third-party testing for TOTOX values will reliably show the total oxidation to which the oil has been exposed, and will thereby reliably assess the quality of any processing technique. (For more information on TOTOX values, see #39 below.) Perhaps even more important is the absence of a fishy taste. It has been verified that the most significant and sensitive pieces of equipment that measure oxidation in oils are still not nearly as sensitive as the human palate [From the AOCS meeting 2007]. The aldehyde byproducts of oxidative damage to fish oils have a high vapor pressure (thus the fish burp) and the distinctly disagreeable taste and smell of rancid fish.

WHAT IS THE DIFFERENCE BETWEEN MOLECULAR DISTILLATION AND CO2 PROCESSING?

Molecular distillation removes impurities (heavy metals, dioxins, etc), saturated fats, and other undesirable organic compounds, leaving behind only the key beneficial components of the fish oil. It is a gentle distillation process with exceptionally low heat residence time, and is performed in a vacuum to further reduce the heat requirement. Flash distillation accomplishes the same thing as molecular distillation, but utilizes steam rather than a vacuum.

CO2 extraction or fractionation starts with oil that has previously undergone either molecular distillation or flash distillation to remove impurities. It uses a combination of pressure and heat to concentrate the amount of omega-3s (EPA and/or DHA) in the oil, extracting the ethyl esters from the fish oil in order to increase their concentration.

Nordic Naturals does not use CO2 extraction because it has not been shown to provide a superior quality product. Independent lab results consistently show that our processing techniques deliver oils of exceptional quality and freshness. Certificates of Analysis are available upon request.

WHAT IS THE DIFFERENCE BETWEEN MOLECULAR DISTILLATION AND COLD-PRESSED FISH OIL?

Please see questions above for information about molecular distillation. All fish oil, regardless of the kind of manufacturing process used, needs to be processed in order to remove contaminants and pass minimum laws and standards (such as California's Proposition 65). This process always requires the use of heat. This includes so-called "cold-pressed" fish oils. Cold-pressed oil also must also use heat during processing to turn the raw material into oil and remove impurities to pass minimum laws and standards.

Nordic Naturals does not use "cold-pressed" processing because it has not been shown to provide a superior quality product. Independent lab results consistently show that our processing techniques deliver oils of exceptional quality and freshness. Certificates of Analysis are available upon request.

WHAT IS THE "GOLD STANDARD" OF NORDIC NATURALS COD LIVER OIL?

Nordic Naturals cod liver oil is made from 100% wild Arctic cod. No fish body oils or synthetic vitamins or additives are ever used. No other brand can honestly make the same claim. Over the past decade, we have perfected our three-step Gold Standard system that allows Nordic Naturals Arctic Cod Liver Oil to surpass even the strict European Pharmacopoeia Standard for purity and freshness:

First, we have built a direct relationship with smaller, independent fishermen, rather than larger trawling vessels, to ensure sustainable harvesting and less time spent at sea.

Second, we are able to minimize oxidation to the greatest degree possible by using nitrogen at every stage of manufacturing to protect the oil from oxygen and decomposition.

Last, since our MSC-certified processing facility in Norway is located right next to the harbor, we are able to keep transportation time at a bare minimum. A few short hours after being caught, the sustainably sourced Arctic cod are delivered whole for immediate processing.

This Gold Standard system enables us to deliver unmatched freshness levels. Third party testing reveals our Arctic Cod Liver Oil to have anisidine values (AV) between 1 and 2—that's five to ten times below the industry average. AV is a measure of oxidation of the oil, so the lower the number, the fresher the fish oil. Certificates of Analysis are available upon request.

WHAT DOES "ANISIDINE VALUE" AND "TOTOX VALUE" MEAN?

Anisidine value (AV) is a measurement of past oxidation of the oil. More specifically, it is the measure of aldehyde production during oxidation of fats. AV essentially reflects how an oil has been handled and stored, versus peroxide value (PV), which measures current oxidation. For both AV and PV, a lower number is better. TOTOX (total oxidation value) is used to describe total oxidation to which the oil has been exposed. TOTOX = 2 x PV + AV.

The fish oils used in Nordic Naturals' products typically range between TOTOX values of 5 and 14. Recent tests of Nordic Naturals raw fish oils report TOTOX values of 7.0. Certificates of Analysis are available upon request.

The established upper limits, as set by the current Voluntary Standards for Omega-3s* in the United States, are as follows:

- Peroxide value: Maximum is 5 mEq/kg
- Anisidine value: Maximum is 20 mEq/kg
- TOTOX: Maximum is 26 mEq/kg

*Council for Responsible Nutrition 2006 Voluntary Monograph

WHERE ARE NORDIC NATURALS PRODUCTS MANUFACTURED AND ENCAPSULATED?

100% of Nordic Naturals fish oil is manufactured in Norway. Nordic Pharma, Nordic Naturals' new omega-3 manufacturing plant in Arctic Norway, is one of the most advanced processing plants in the omega-3 industry. Wholly owned and operated by Nordic Naturals, Nordic Pharma is a custom-designed, state-of-the-art plant built to pharmaceutical grade standards. All of our liquid and soft gel products are bottled and encapsulated at our plant in Southern California. All of our gummy products are manufactured in the United States.

DOES THE COLOR OF FISH OIL HAVE ANYTHING TO DO ITS QUALITY?

The color of any fish oil results from the species of fish that is used to produce it. Fish species that have colored flesh will produce fish oil of similar color. The color of the oil does not speak to quality. Only third party testing for purity and freshness will reliably show the quality of a fish oil product.

WHY IS THERE A BROWN SPOT IN MY SOFT GEL?

In all Nordic Naturals formulas, we use natural antioxidants (vitamin E and rosemary, for example) to help preserve the freshness of the oil. In many formulas, we also use natural fruit flavors to augment the palatability of our oils. Because these natural components are present in the soft gels, occasionally they can collect and concentrate at a specific point in the soft gel—which can create a discolored spot. This spot may dissipate when shaken, or may stay in a fixed place in the event that the spot adheres to the wall of the soft gel.

ENTERIC COATING OF FISH OIL SOFT GELS HAS BECOME POPULAR. IS IT IMPORTANT OR NECESSARY?

Enteric coating uses various compounds to coat the outside of soft gels in order to prevent them from being dissolved by stomach acids, so that the soft gel passes through the stomach to the small intestine where it will then dissolve. We believe the main reason why fish oil soft gels are enteric coated is to prevent repeat or burping. It is possible that enteric coating may be used to hide the fishy repeat associated with low quality/rancid oils with high TOTOX numbers. Fresh fish oil with low TOTOX values does not need to be masked. It is also important to note that consumers with sub-optimal digestion may not digest and absorb fish oil from an enteric-coated capsule.

WHERE DOES THE GELATIN IN NORDIC NATURALS SOFT GELS COME FROM?

The gelatin in Nordic Naturals products protects the fish oil from oxidative damage, yielding a fresh product over a long shelf life, as well as increasing compliance (and thus results). We source our gelatin from non-BSE approved countries only. For all soft gel products except for our Omega-3 in Fish Gelatin Soft Gels, our soft gels are made from FDA-approved bovine gelatin/glycerin USP (kosher) and purified water USP. In some products, the gelatin soft gels contain caramel color. In our fruit-flavored products, the gelatin soft gels contain natural fruit flavoring. For our Nordic Omega-3 Gummies™, Gummy Worms™, and Gummy Fish™, which contain microencapsulated fish oil, we use FDA-approved porcine gelatin.

DO NORDIC NATURALS' PRODUCTS AND CONTAINERS CONTAIN PHTHALATES?

No. Phthalates are plasticizers sometimes used in the manufacturing of plastic piping and industrial equipment. They have been in the news recently for their illegal use in some parts of Southeast Asia. Nordic Naturals is committed to the safety and efficacy of our products.

Nordic Naturals products and plastic containers do not use phthalates in any stage of our process. The US EPA and the World Health Organization have strict guidelines regarding phthalates and Nordic Naturals has always adhered to these standards.