Info shared by Pitbull SA.

Manjaro APBT kennel.

South Africa.

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Zello.com "VoIP" – ask for info.

Omega 3 fish oils.

FAQs https://www.nordicnaturals.com/ie/index.php

GROUP 1 ▸ What are omega-3 essential fatty acids (EPA & DHA) & why do need them?
GROUP 2 ▸ What's the difference between fish oil and other sources of omega-3s?
GROUP 3 ▸ Questions about flavors, allergens, and safety profile.
GROUP 4 ▸ Questions about information on Nordic Naturals labels.
GROUP 5 ▸ Questions about the Nordic Naturals manufacturing process.

***ARE NORDIC NATURALS PRODUCT AT RISK OF RADIATION EXPOSURE IN LIGHT OF THE RECENT TRAGIC EVENTS IN JAPAN?**

In an effort to address concerns relating to the recent, tragic events in Japan, Nordic Naturals would like to reassure customers that our products are not a for radiation exposure.

While our products remain unaffected by this disaster, Nordic Naturals will continue to take preventative action by testing all fish oils harvested during and after March 2011 for radiation.
These test results will be listed on all applicable Certificates of Analysis.
We will continue to assess any potential risks resulting from this crisis, and will maintain precautionary measures until they are deemed no longer necessary.

Nordic Naturals sources fish oil from a variety of species, all of which are harvested through sustainable fishing practices in the following regions:

- Arctic cod are harvested in Arctic Norway
- Sardines and anchovies are harvested from the South Pacific Ocean off the coast of Peru
- Kenai Wild™ Alaskan Salmon are harvested from the Cook Inlet of Kenai, Alaska

For more information on our fishing practices visit planet Nordic.

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1. 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 balanced ratio.
The body must receive a balanced supply of omega-3 and omega-6 EFAs to ensure proper eicosanoid production.
Eicosanoids are hormone-like compounds that affect virtually every system in the body—they regulate pain and inflammation, 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 indicate that this EFA imbalance can contribute to chronic inflammation and a variety of chronic health issues.
The most beneficial omega-3s that we're missing are EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid).
Purified fish oil is the best direct source of EPA and DHA.

2. WHAT ARE THE EARLY 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

3. 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, pe

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.

2. 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 inflammatory responses, contributing 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).

3. IF WE GET TOO MUCH OMEGA-6 IN OUR DIET, THEN WHY DOES NORDIC NATURALS OFFER PRODUCTS THAT CONTAIN AN OMEGA-6 (e.g. COMPLETE OMEGA-3.6.9, OMEGA WOMAN)?

Omega–6 fatty acids (LA or Linoleic Acid) 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 (named GLA or Gamma Linolenic Acid) 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, supports healthy skin, brain function, mood,

joints and cardiovascular health, and works best when taken along with the EPA and DHA in fish oil.*

6. 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 postpartum depression.

* 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 healthcare professional.

7. 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 st dosage, and current health.

We often hear that our customers "feel better" and experience "clearer thinking" ar "enhanced wellbeing" 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.

8. 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 th 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 chromate ograph 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.

9. 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 environmenta 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.
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.

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

Omega–3 EFAs fall into two major categories: plant–derived (flax seed oil, containin
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..

11. 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—i
generally provides a higher concentration of omega–3,
is much more stable, and is backed by much more science than krill oil.
To date, there are only 3 published human studies conducted with krill oil, whereas
oil—when manufactured according to international quality standards—has a prover
of efficacy, purity, safety, and
sustainability that is backed by several thousand published studies.

12. WHAT IS THE DIFFERENCE BETWEEN FISH OIL AND EATING FISH?

Many people are justifiably concerned about mercury levels and other environment toxins in fish, especially larger species.

Nordic Naturals fish oils provide you with all the benefits of the omega–3s EPA and D with no risk of toxicity.

The fish oil used in every batch of our products is tested by third party laboratories a consistently delivers exceptional results, surpassing the strictest international standards for fish oil purity, freshness and potency. Certificate Analysis are available upon request.

13. 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

14. WHAT PERCENTAGE OF FISH OIL IS MADE UP OF EPA AND DHA?

EPA and DHA have been consistently shown to be the most beneficial fatty acids in thousands of published studies.

The following table exhibits the typical values of EPA and DHA in various forms of non-concentrated fish oil.

Fish Source	*EPA*	*DHA*
Anchovies/Sardines	18%	12%
Cod Liver Oil	9%	14%
Salmon	9%	10%

15. 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 taki 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.

16. 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 a patented 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.

17. 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, t high doses of aspirin, or anticipating surgery.

18. ARE THE VITAMIN A LEVELS IN NORDIC NATURALS COD LIVER OIL SAFE?

There has been some concern recently that cod liver oil has high levels of

vitamin A.
This concern stems from the fact that almost all cod liver oil products on the market are supplemented with added vitamin A (natural or synthetic). This is be many cod liver oil products are not made from cod livers!
Many brands use fish body oil (from species such as Pollock or haddock) as a less expensive source of oil, and then add vitamin A and D to mimic cod liver oil.
This practice is allowed because the international production of cod liver oil is regulated by only one rule—the final product must match the specific EPA ratio (EPA to DHA) found in cod liver oil.
These practices are not applicable, however, to the Nordic Naturals brand, and neve been.
We have always used 100% Arctic cod livers in our CLO formulas, which have consequently always had low, healthy levels of naturally occurring, fat–soluble vitamin A.
We have never used fish body oils or any synthetic additives of any kind in our CLO.
Nordic Naturals CLO typically averages 650–1500 IU of vitamin A per serving, which falls in the low range compared to other manufacturers' products that can contain more than 4500 IU per serving.
The recommended daily allowance of vitamin A for adults (as established by the US Institute of Medicine of the National Academy of Science) is 3,000 IU for men and 2,300 IU for women.

19. WHAT ALLERGENS ARE PRESENT IN NORDIC NATURALS FISH OILS?
We are very sensitive to allergen issues, and do our very best to ensure responsible labelling in this regard.
Potential exposure to the eight major allergens as identified by the Food Allergen and Labelling Consumer Protection Act (FALCPA) is disclosed on our label.
This information can be found below the ingredients list.
Whenever possible, we avoid ingredients containing allergens, especially those outlined by FALCPA:

milk,
egg,
fish (e.g., bass, flounder, or cod),
crustacean shellfish (e.g., crab, lobster, or shrimp),
tree nuts (e.g., almonds, pecans, or walnuts),
wheat,
peanuts,
soybeans.
We recognize that while fish may be on the above list and our products contain fish oil, there is no fish protein (which is the allergenic component) found in the finished product.
We also always disclose on our labels any use of equipment exposed to these allergens.
Although some products may have been manufactured on shared equipment, extensive quality control procedures are in place to avoid the risk of cross contamination.

Soy allergens.

Most of our products contain Vitamin E derived from highly refined soybean oil.
As many soy allergy sufferers know, soy allergies result from exposure to soy proteins.
Nordic Naturals ensures that our Vitamin E, verified by both a traditional analytical r
and by Enzyme–Linked Immunosorbent Assay (ELISA), contains either no soy protein
undetectable levels of protein.
Because of this, we feel confident that individuals allergic to soy can safely take our
products.*t*

20. IF I AM ALLERGIC TO FISH, FISH PROTEIN, LEMON, STRAWBERRY OR OTHER FLAVOURS, 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 gelatine that is used in our fish gelatine 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 stabilizers 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.

21. IF I AM TOPICALLY ALLERGIC TO LANOLIN, CAN I TAKE THE NORDIC NATURALS PRODUCTS CONTAINING VITAMIN D3?

The raw material (lipid) used to produce Vitamin D3 is separated from the lanolin, w has been separated from the wool fat.

There are several purification steps from raw material to the pure vitamin D3 (cholecalciferol), and, because of this, the supplier believes that a person who is allergic to lanolin topically is not likely to be allergic when ingesting Vi D3.

Also, we need to keep in mind that healthy digestive processes—gut pH, digestive en action—are intended to digest, package, and transport nutrients, adding a degree of protection as well.

But we always recommended that people with allergies confer with their healthcare practitioner before beginning a supplement regime.

22. 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.

23. 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.

24. HOW MUCH IODINE IS IN THE ULTIMATE OMEGA/PROOMEGA?
Nearly all of the iodine naturally present in fish is removed during our purification pr
Test results show levels of iodine in Ultimate Omega/Pro Omega 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*

25. WHAT DOES "PHARMACEUTICAL GRADE" MEAN?
"Pharmaceutical grade fish oil" is defined as purified, winterized, and deodorised 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 #29 below.

26. 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 in each soft gel.
Regardless of the omega–3 concentration, a 1000mg soft gel contains 1000mg of oil, and thus contains 9 calories.

27. WHAT ARE THE "OTHER OMEGA-3s" 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 ac 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 find this information is 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.

28. WHY DOES IT STATE ON SOME LABELS THAT THE PRODUCT IS "DISTILLED FOR PURITY" WHEREAS OTHERS STATE THAT THEY ARE "MOLECULARL

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 #32 and #33 below.

29. WHAT DOES "NATURAL 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 synthetic 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.

30. 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 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.

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

Since our founding, Nordic Naturals has always been committed to harvesting 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% Arctic cod livers, from wild Arctic cod (Skrei) that are sustainably harvested from northern Norwegian waters.
Nordic Naturals Kenai Wild Alaskan Salmon Oil is made from pink and sockeye salmon, sustainably harvested wild from the Cook Inlet in the Kenai Peninsula of Alaska.
All other Nordic Naturals products are made from wild, sustainably harvested sardines and anchovies from the South Pacific Ocean off the coast of Peru.

For more detailed information about our fishing practices
and the regulations of the Norwegian Government fisheries management system, pl
visit: planet Nordic

32. 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.

33. 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 our concentrated fish oils and for our Arctic Cod Liver Oil.
Flash distillation is used for our non–concentrated fish oils. Independent lab results consistently show that these patented processing techniques deliver oils of exceptional quality and freshness.
Certificates of Analysis are available upon request.

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

Molecular distillation (used for our concentrated fish oils and for our

Arctic Cod Liver Oil) 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 affe 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 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 by-products 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.

35. 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 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 patented processing techniques oils of exceptional quality and freshness.
Certificates of Analysis are available upon request.

36. WHAT IS THE DIFFERENCE BETWEEN MOLECULAR DISTILLATION AND COLD-PR FISH OIL?

Please see #33, #34, and #35 (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 i

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 patented processing techniques oils of exceptional quality and freshness.
Certificates of Analysis are available upon request.

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

Nordic Naturals offers the only 100% Arctic Cod Liver Oil on the market.
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 beginning immediately, right on the boat, and at every stage of manufacturing to protect the oil from oxygen and decomposition.

Last, since our Norwegian processing facility is located right next to the harbour, we are able to keep transportation time at a bare minimum.
A few short hours after being caught, the sustainably harvested Arctic cod are delive whole are delivered 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) betw
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.

38. 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
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

39. WHERE ARE NORDIC NATURALS PRODUCTS MANUFACTURED AND ENCAPSULA
100% of Nordic Naturals fish oil is manufactured in Norway.
All of our soft gels are encapsulated in either Europe or the U.S.
Our liquid products are blended and bottled in the U.S.
All of our gummy products are manufactured in the U.S.

40. DOES THE COLOUR OF FISH OIL HAVE ANYTHING TO DO ITS QUALITY?

The colour 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 colour.
The colour 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.

41. WHY ARE THE LEMON NORDIC NATURALS SOFT GELS CLOUDY WHILE THE STRAWBERRY AND UNFLAVOURED SOFT GELS ARE CLEAR?

In many Nordic Naturals formulas, we use natural fruit flavorings to enhance the palatability of our oils.
This process involves adding these flavorings to both the oil and to the soft gel itself.

These flavorings are derived from natural fruit essences, and differ slightly depending on the fruit used.
The natural lemon flavor, for example, takes on a cloudy appearance when combined with fish oil, whereas the strawberry flavor does not.

42. WHY IS THERE A BROWN SPOT IN MY SOFT GEL?

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.

43. ENTERIC COATING OF FISH OIL SOFTGELS 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.

44. WHERE DOES THE GELATIN IN NORDIC NATURALS SOFTGELS COME FROM?

The gelatine 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 gelatine from non–BSE approved countries only.

For all soft gel products except for our Omega–3 in Fish Gelatine Soft Gels, our soft g made from FDA approved bovine gelatine /glycerine USP (kosher) and purified water USP.

In some products, the gelatine soft gels contain caramel colour.

In our fruit flavored products, the gelatine soft gels contain natural fruit flavoring.

For our Nordic Omega–3 Gummies, Worms, and Fishies, which contain microencapsulated fish oil, we use FDA approved porcine gelatine.

45. WHICH NORDIC NATURALS FISH OILS ARE CONCENTRATED AND WHICH ARE NOT?

Nordic Naturals offers all our Arctic Cod Liver Oils in their natural concentrations, simply purified. Nordic Naturals fish body oils that are

also sold as non–concentrates are:
Omega–3 (and Omega–3D),
Complete Omega–3.6.9 (and Complete Omega–3.6.9–D),
Omega–3.6.9 Junior (and Omega–3.6.9–D Junior),
Omega Woman, and Omega–3 Pet.
Our Omega–3 gummy products are not concentrated.
All other Nordic Naturals fish oil products offer various concentrations of EPA and/or DHA.

46. WHY DOESN'T NORDIC NATURALS INCLUDE NIACIN IN THEIR NORDIC BERRIES MULTIVITAMIN?

The simple answer is that niacin in this supplement isn't necessary and here's why:

Children 1–10 yrs. need about 6–12 mg/day and this is easily accomplished with a normal diet (and can also convert from tryptophan). Secondly, takes 10–20 mg/day of supplemental niacin to cause a skin flushing, GI upset, and possible mild liver damage.

The Food and Nutrition Board sets the upper limit at about 10–15mg/day for children 1–8yrs.
So it's likely that if niacin were in this supplement, its RDA would be reached and easily exceeded (since they taste so good)!

47. WHY DOES NORDIC NATURALS ADD VITAMIN D3 TO MANY OF THEIR FISH OILS?

There is growing concern in the medical and scientific community about the prevalence of vitamin D deficiency.
In 2008, the American Academy of Pediatrics doubled its vitamin D recommendation infants, children, and adolescents to 400 I.U.s a day
in response to the mounting consensus that vitamin D deficiency is an Under-recognized epidemic.

In response, Nordic Naturals offers a Vitamin D3 product (which does not contain fis
for children and adults who do not receive adequate sun exposure, in a dose that ex
recommend—1000 I.U.s per serving.
And we've also introduced several fish oil + vitamin D3 formulas that deliver 1000 I.U.s of vitamin D3 per serving, in addition to the omega-3s EPA and DHA.

We use the D3 (or cholecalciferol) form of vitamin D in our products because it is the natural and most easily absorbed form, which the body makes from sunlight.
Long known for its role in enhancing the absorption of calcium and phosphorus for strong bones, vitamin D is also linked to a variety of other functions in optimizing health, including the regulation of the immune and neuromuscular systems, and the modulation of mood and circadian rhythms.

48. DO NORDIC NATURALS' PRODUCTS AND CONTAINERS CONTAIN PHTHALATES?
Phthalates are plasticizers sometimes used in the manufacturing of plastic piping an
industrial equipment.
They have been in the news recently for their illegal use in some parts of Southeast
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 & World Health Organization have strict guidelines regarding phthalates
Nordic has always adhered to these standards.

HOW TO CHOOSE FISH OILSUPPLEMENT.

South Africa's supermarket and pharmacy shelves are filled with omega-3 supplements, causing much confusion for consumers. Experts offer tips to help consumers decide who a fish oil needs supplement and how to choose the best one.

So what's the hype about fish oils anyway?

Science has shown that fish oil holds several health benefits and most of these benefits seem to come from the omega-3 fatty acids (eicosapentaenoic acid (EPA) and docosahexaenoic acid DHA)).

Interestingly, the body fails to produce its own omega-3 fatty acids, which therefore need to be consumed via the diet or supplements. Cold water fatty fish like pilchards, sardines, mackerel, herring and salmon are rich sources of omega-3 fatty acids.

Omega-3 fatty acids is acknowledged for its role in decreasing the risk of heart disease and stroke, as well as its anti-inflammatory properties,

which protect against type 2 diabetes, cancer, ulcerative colitis, asthma, psoriasis and many more.
The role of omega-3 fatty acids in brain and eye development is also well documented.

How much should I take or use? (Adapt form a 75kg human to the dogs weight).
Around 250-280g of oily fish should be consumed weekly to reach recommended intakes and this amounts to about 500mg EPA in combination with DHA per day.
To reach these levels, many consumers prefer using a supplement – and there is no shortage of choice.
In 2014, there were more than 65 fish oil supplements available on pharmacy and supermarket shelves in South Africa.
Choosing the right one is not straightforward, but there are a few things consumers can look out for.
The most expensive supplements are not necessarily the best.
Become familiar with claims on supplement labels and If it sounds too good to be true it usually is!

High concentration is not necessarily better
In nature, virtually all fats appear in the form of triglycerides (TGs) and the omega-3 fatty acids in fish are almost exclusively TGs.
However, not all omega-3 supplements on the South African market are encapsulated as TGs, but may be processed to fatty acid ethyl esters (FAEE), a combination of FAEE and TG or a synthetic form of TG.
Many supplements claim that they comprise of high potency, concentrated or even super concentrated fish oil.
But concentrated fish oil is not considered to be fish oil anymore.
Fish oil concentrates are obtained when alcohol is mixed with fish oil during the manufacturing process, leading to the formation of FAEE.
During the digestion of FAEE alcohol is released.

Though the safety of FAEE has not yet been proven in humans, pregnant women have also been advised against its use.
Yet in South Africa most manufacturers fail to indicate whether their products contain FAEE on product label and neither warn pregnant women against its use.
Research has also shown that FAEE is not well absorbed, compared to other forms of fish oil.
A 2013 survey conducted by the Functional Foods Research Unit at the Cape Peninsula University of Technology (CPUT) found that a fifth (21%) of 63 fish oil supplements on the South African market comprised exclusively of FAEE, while 68% were a combination of FAEE and TG.

Check the expiry date.
The state of rancidity of some fish oil supplements is another concern. In the same study, 57 fish oil supplements were tested for rancidity and more than 80% of these supplements exceeded the recommended rancidity levels.
When fatty acids become rancid they are considered harmful to the health and are less effective.
Health professionals should advise consumers to purchase supplements from outlets which have not been stored on shelves for excessive periods of time, where exposure to light is a problem.
Consumers should avoid buying supplements packaged in clear containers since exposure to light may enhance the oil rancidity and have been advised to refrain from using any supplement beyond the expiry date.

Don't overdo it!
Excess fish oil consumption (less than 3 000 mg/day) should be avoided. Supplement labels should clearly indicate the exact contents of both the fish oil supplement and the EPA and DHA contents in a capsule. Over supplementation can lead to prolonged bleeding, especially when

used in combination with other blood thinning medication and increases the risk of suffering a stroke.
Diabetics should also exercise caution when using omega-3 fatty acids since it could affect blood glucose levels. Ideally the source of fish oil should be indicated especially since different types of fish contain different amounts of omega-3 fatty acids.

Healthy habits.
Taking the right supplement contributes to good health in the long term, but consumers should not expect instant benefits.
Science indicates that it takes 30-60 days for EPA and DHA to fulfill its optimal function and for the user to recognize a difference in inflammation levels.
Like any good habit – taking supplements is something consumers have to be committed to developing and maintaining.
And remember, taking supplements does not replace the need to have other healthy habits.
Always eat plenty of fruit and vegetables and exercise regularly for optimal health.