Dha Ratio In Fish Fillet

Omega?3 fatty acid

acid (EPA) and docosahexaenoic acid (DHA). ALA can be found in plants, while DHA and EPA are found in algae and fish. Marine algae and phytoplankton are

Omega?3 fatty acids, also called omega?3 oils, ??3 fatty acids or n?3 fatty acids, are polyunsaturated fatty acids (PUFAs) characterized by the presence of a double bond three atoms away from the terminal methyl group in their chemical structure. They are widely distributed in nature, are important constituents of animal lipid metabolism, and play an important role in the human diet and in human physiology. The three types of omega?3 fatty acids involved in human physiology are ?-linolenic acid (ALA), eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). ALA can be found in plants, while DHA and EPA are found in algae and fish. Marine algae and phytoplankton are primary sources of omega?3 fatty acids. DHA and EPA accumulate in fish that eat these algae. Common sources of plant oils containing ALA include walnuts, edible seeds and flaxseeds as well as hempseed oil, while sources of EPA and DHA include fish and fish oils, and algae oil.

Almost without exception, animals are unable to synthesize the essential omega?3 fatty acid ALA and can only obtain it through diet. However, they can use ALA, when available, to form EPA and DHA, by creating additional double bonds along its carbon chain (desaturation) and extending it (elongation). ALA (18 carbons and 3 double bonds) is used to make EPA (20 carbons and 5 double bonds), which is then used to make DHA (22 carbons and 6 double bonds). The ability to make the longer-chain omega?3 fatty acids from ALA may be impaired in aging. In foods exposed to air, unsaturated fatty acids are vulnerable to oxidation and rancidity.

Omega?3 fatty acid supplementation has limited evidence of benefit in preventing cancer, all-cause mortality and most cardiovascular outcomes, although it modestly lowers blood pressure and reduces triglycerides. Since 2002, the United States Food and Drug Administration (FDA) has approved four fish oil-based prescription drugs for the management of hypertriglyceridemia, namely Lovaza, Omtryg (both omega-3-acid ethyl esters), Vascepa (ethyl eicosapentaenoic acid) and Epanova (omega-3-carboxylic acids).

Fish oil

acid (EPA) and docosahexaenoic acid (DHA), precursors of certain eicosanoids that are known to reduce inflammation in the body and improve hypertriglyceridemia

Fish oil is oil derived from the tissues of oily fish. Fish oils contain the omega?3 fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), precursors of certain eicosanoids that are known to reduce inflammation in the body and improve hypertriglyceridemia. There has been a great deal of controversy in the 21st century about the role of fish oil in cardiovascular disease, with recent meta-analyses reaching different conclusions about its potential impact.

The fish used as sources do not actually produce omega?3 fatty acids. Instead, the fish accumulate the acids by consuming either microalgae or prey fish that have accumulated omega?3 fatty acids. Fatty predatory fish, like sharks, swordfish, tilefish, and albacore tuna, may be high in omega?3 fatty acids, but due to their position at the top of the food chain, these species may also accumulate toxic substances through biomagnification. For this reason, the United States Environmental Protection Agency recommends limiting consumption (especially for women of childbearing age) of certain (predatory) fish species (e.g., albacore tuna, shark, king mackerel, tilefish and swordfish) due to high levels of the toxic contaminant mercury. Dioxins, like PCBs and chlordane, as well as other chlorinated cyclodiene insecticides are also present. Fish oil is used in aquaculture feed, in particular for feeding farmed salmon.

Marine and freshwater fish oil vary in contents of arachidonic acid, EPA and DHA. The various species range from lean to fatty, and their oil content in the tissues has been shown to vary from 0.7% to 15.5%. They also differ in their effects on organ lipids. Studies have revealed that there is no relation between either 1) total fish intake or 2) estimated omega?3 fatty acid intake from all fish and serum omega?3 fatty acid concentrations. Only fatty fish intake, particularly salmonid, and estimated EPA + DHA intake from fatty fish has been observed to be significantly associated with increase in serum EPA + DHA.

The United States Food and Drug Administration (FDA) has approved four fish oil-based prescription drugs for the management of hypertriglyceridemia, namely Lovaza, Omtryg (both omega-3-acid ethyl esters), Vascepa (ethyl eicosapentaenoic acid), and Epanova (omega-3-carboxylic acids). None of these drugs are actually fish oil; they are all derivatives of acids found in fish oil.

Cod as food

fish used in British fish and chips. Fresh haddock has a clean white flesh and can be cooked in the same ways as cod. Freshness of a haddock fillet can

Cod and other cod-like fish have been widely used as food through history. Other cod-like fish come from the same family (Gadidae) that cod belong to, such as haddock, pollock, and whiting.

Salmon as food

500 mg DHA and 300–1,000 mg EPA (two similar species of fatty acids) per 100 grams Salmon cannery Atlantic salmon Chum salmon "What's an oily fish?". Food

Salmon is a common food fish classified as an oily fish with a rich content of protein and omega-3 fatty acids. Norway is a major producer of farmed and wild salmon, accounting for more than 50% of global salmon production. Farmed and wild salmon differ only slightly in terms of food quality and safety, with farmed salmon having lower content of environmental contaminants, and wild salmon having higher content of omega-3 fatty acids.

Thraustochytrids

content) ratio medium, and then replaced with a high C:N (low nitrogen content) ratio medium, which subsequently prompts an increase in both DHA and FAs

Thraustochytrids are single-celled saprotrophic eukaryotes (decomposers) that are widely distributed in marine ecosystems, and which secrete enzymes including, but not limited to amylases, proteases, phosphatases. They are most abundant in regions with high amounts of detritus and decaying plant material. They play an important ecological role in mangroves, where they aid in nutrient cycling by decomposing decaying matter. Additionally, they contribute significantly to the synthesis of omega-3 polyunsaturated fatty acids (PUFAs): docosahexaenoic acid (DHA), and eicosapentaenoic acid (EPA), which are essential fatty acids for the growth and reproduction of crustaceans. Thraustochytrids are members of the class Labyrinthulea, a group of protists that had previously been incorrectly categorized as fungi due to their similar appearance and lifestyle. With the advent of DNA sequencing technology, labyrinthulomycetes were appropriately placed with other stramenopiles and subsequently categorized as a group of Labyrinthulomycetes.

There are several characteristics which are unique to Thraustochytrids, including their cell wall made of extracellular non-cellulosic scales, zoospores with characteristic heterokont flagella, and a bothrosome-produced ectoplasmic net, which is used for extracellular digestion. Thraustochytrids are morphologically variable throughout their life cycle. They have a main vegetative asexual cycle, which can vary depending on the genus. While sexual reproduction has been observed in this group, it remains poorly understood.

Thraustochytrids are of particular biotechnical interest due to their high concentrations of docosahexaenoic acid (DHA), palmitic acid, carotenoids, and sterols, all of which have beneficial effects to human health. Thraustochytrids rely on a plethora of resources such as various sources of organic carbon (vitamins and sugars), and inorganic salts throughout their life cycle. Scientists have devised several potential uses for thraustochytrids stemming around increasing DHA, fatty acids, and squalene concentrations in vivo by either changing the genetic makeup or medium composition/conditioning. There have also been some breakthroughs which have resulted in gene transfers to plant species in order to make isolation of certain oils easier and cost effective. Thraustochytrids are currently cultured for use in fish feed and production of dietary supplements for humans and animals. In addition, scientists are currently researching new methodologies to convert waste water into useful products like squalene, which can then be utilized for the production of biofuel.

Yup?ik cuisine

fresh fish baked whole or filleted after the entrails are removed. The meat of fish baked whole is slit in the middle lengthwise on the other side. Fish are

Yup'ik cuisine (Yupiit neqait in Yup'ik language, literally "Yup'iks' foods" or "Yup'iks' fishes") refers to the Inuit and Yup'ik style traditional subsistence food and cuisine of the Yup'ik people from western and southwestern Alaska. It is also known as Cup'ik cuisine for the Chevak Cup'ik-dialect-speaking Eskimos of Chevak and Cup'ig cuisine for the Nunivak Cup'ig-dialect-speaking Eskimos of Nunivak Island. This cuisine is traditionally based on meat from fish, birds, sea and land mammals, and normally contains high levels of protein. Subsistence foods are generally considered by many to be nutritionally superior superfoods. The Yup’ik diet is different from Alaskan Inupiat, Canadian Inuit, and Greenlandic diets. Fish as food (especially Salmonidae species, such as salmon and whitefish) are primary food for Yup'ik Eskimos. Both food and fish are called neqa in Yup'ik. Food preparation techniques are fermentation and cooking, also uncooked raw. Cooking methods are baking, roasting, barbecuing, frying, smoking, boiling, and steaming. Food preservation methods are mostly drying and less often freezing. Dried fish is usually eaten with seal oil. The ulu or fan-shaped knife is used for cutting up fish, meat, food, and such.

The Yup'ik, like other Eskimo groups, were semi-nomadic hunter-fisher-gatherers who moved seasonally throughout the year within a reasonably well-defined territory to harvest fish, bird, sea and land mammal, berry and other renewable resources. Yup'ik cuisine is based on traditional subsistence food harvests (hunting, fishing and berry gathering) supplemented by seasonal subsistence activities. The Yup'ik region is rich with waterfowl, fish, and sea and land mammals. The coastal settlements rely more heavily on sea mammals (seals, walruses, beluga whales), many species of fish (Pacific salmon, herring, halibut, flounder, trout, burbot, Alaska blackfish), shellfish, crabs, and seaweed. The inland settlements rely more heavily on Pacific salmon and freshwater whitefish, land mammals (moose, caribou), migratory waterfowl, bird eggs, berries, greens, and roots help sustain people throughout the region.

Akutaq (Eskimo ice cream), tepa (stinkheads), and mangtak (muktuk) are some of the most well-known traditional Yup'ik delicacies.

Traditional subsistence foods are mixed with what is commercially available. Today about half the food is supplied by subsistence activities, and the other half is purchased from commercial stores.

Knife

removing the bones of poultry, meat, and fish. Fillet Knife: A knife a with flexible blade used to separate meat or fish from bones. Butcher's Knife: A knife

A knife (pl.: knives; from Old Norse knifr 'knife, dirk') is a tool or weapon with a cutting edge or blade, usually attached to a handle or hilt. One of the earliest tools used by humanity, knives appeared at least 2.5 million years ago, as evidenced by the Oldowan tools. Originally made of wood, bone, and stone (such as

flint and obsidian), over the centuries, in step with improvements in both metallurgy and manufacturing, knife blades have been made from copper, bronze, iron, steel, ceramic, and titanium. Most modern knives have either fixed or folding blades; blade patterns and styles vary by maker and country of origin.

Knives can serve various purposes. Hunters use a hunting knife, soldiers use the combat knife, scouts, campers, and hikers carry a pocketknife; there are kitchen knives for preparing foods (the chef's knife, the paring knife, bread knife, cleaver), table knife (butter knives and steak knives), weapons (daggers or switchblades), knives for throwing or juggling, and knives for religious ceremony or display (the kirpan).

Aquaculture of salmonids

processing plant. This allows the fish to be killed, bled, and filleted before rigor has occurred. This results in superior product quality to the customer

The aquaculture of salmonids is the farming and harvesting of salmonid fish under controlled conditions for both commercial and recreational purposes. Salmonids (particularly salmon and rainbow trout), along with carp and tilapia, are the three most important fish groups in aquaculture. The most commonly commercially farmed salmonid is the Atlantic salmon (Salmo salar).

In the United States, Chinook salmon and rainbow trout are the most commonly farmed salmonids for recreational and subsistence fishing through the National Fish Hatchery System. In Europe, brown trout are the most commonly reared fish for recreational restocking. Commonly farmed non-salmonid fish groups include tilapia, catfish, black sea bass and bream. In 2007, the aquaculture of salmonids was worth USD $10.7 billion globally. Salmonid aquaculture production grew over ten-fold during the 25 years from 1982 to 2007. In 2012, the leading producers of salmonids were Norway, Chile, Scotland and Canada.

Much controversy exists about the ecological and health impacts of intensive salmonids aquaculture. Of particular concern are the impacts on wild salmon and other marine life.

Swiss Army knife

saw with nail file Magnifying glass Phillips screwdriver Fish scaler / hook disgorger / ruler in cm and inches Pliers / wire cutter / wire crimper Can opener

The Swiss Army knife (SAK; German: Schweizer Taschenmesser, Sackmesser, Hegel, etc.) is a pocketknife, generally multi-tooled, now manufactured by Victorinox. The term "Swiss Army knife" was coined by American soldiers after World War II because they had trouble pronouncing the German word "Offiziersmesser", meaning "officer’s knife".

The Swiss Army knife generally has a drop-point main blade plus other types of blades and tools, such as a screwdriver, a can opener, a saw blade, a pair of scissors, and many others. These are folded into the handle of the knife through a pivot point mechanism. The handle is traditionally a red colour, with either a Victorinox or Wenger "cross" logo or, for Swiss military issue knives, the coat of arms of Switzerland. Other colours, textures, and shapes have appeared over the years.

Originating in Ibach, Switzerland, the Swiss Army knife was first produced in 1891 when the Karl Elsener company, which later became Victorinox, won the contract to produce the Swiss Army's Modell 1890 knife from the previous German manufacturer. In 1893, the Swiss cutlery company Paul Boéchat & Cie, which later became Wenger SA, received its first contract from the Swiss military to produce model 1890 knives; the two companies split the initial contract for provision of the knives and operated as separate enterprises from 1908. In 2005 Victorinox acquired Wenger. As an icon of the culture of Switzerland, both the design and the versatility of the knife have worldwide recognition. The term "Swiss Army knife" has acquired usage as a figure of speech indicating a multifaceted skillset.

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