Why Tridocosahexaenoína-AOX® is different from other sources of DHA?

01 Tridocosahexaenoína-AOX® isn't a natural source of DHA. It's a molecule enzymatically synthetized, from DHA obtained from tuna fish. It shows a high bioactivity.

02 Its Biosynthesis process is conferring it special physiological characteristics, different from what normal Omega-3 oils are offering.

03 It imitates DHA-triglycerides present in human mother's milk, by attaching DHA in central (Sn-2) position of the glycerol backbone.

04 This is accelerating intestinal absorption, bioavailability, and conversion into DHA rich phospholipids being inserted into cell membranes.

05 It has been patented as a cell antioxidant: it stimulates intracellular glutathione synthesis, the main antioxidant in mammal cells.[1]

06 Bioactivity has been tested by means of *in vitro* human cell cultures (human pigmentary epithelium cells of the retina, and human skin cells).[2]

07 Trials in absorption and red blood cell membrane DHA availability have been done in healthy volunteers.[17]

08 Antioxidant plus anti-inflammatory clinical efficacy, and safety are **supported by more tan 20 controlled* clinical trials**, most of them double-blind and placebo- controlled:

- Anti-inflammatory activity in Dry Eye due to diverse causes.[3-6]
- In Dry Eye due to Meibomian Gland Dysfunction.[7,8]
- Open trials of large series of patients with Dry Eye diagnosis.[9-11]
- In patients suffering Expholiation Glaucoma.
- In patients suffering Chronic Primary Glaucoma (trial ongoing).
- In patients suffering Diabetic Retinopathy being supplemented:
  - Diabetic Macular Edema patients, in addition to iv ranibizumab.[12]
  - Effects on macular Microperimetry in NPDR patients.[13]
  - Versus placebo in NPDR patients in a prolonged follow-up.
- In Kids suffering Attention Deficit Hyperactivity Disorder (ADHD).
- In patients suffering Chronic Lymphatic Leukemia.
- In patients suffering Amyotrophic Lateral Sclerosis.
- In patients with DNA oxidative fragmentation of spermatozoa.[14,15]
- Complex reaction time in female elite soccer players.[16]
- Oxidative/anti-inflammatory protection in Triathletes.
- Oxidative protection against intense exercise.[17]

**Trials not showing bibliographic reference are either ongoing, or still pending to be published.*

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Tridocosahexaenoína-AOX® synthesis process

Understanding the human physiology of DHA is fundamental

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4. Galbis-Estrada C, et al; Patients undergoing long-term treatment with antihypertensive eye drops responded positively with respect to their ocular surface disorder to oral supplementation with antioxidants and essential fatty acids; Clin Int Aging 2013; 8:711-19.
5. Ribelles Alfredo, et al; Ocular Surface and Tear Film Changes in Older Women Working with Computers; BioMed Research International 2015; Article ID 467039.
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10. Jordi Gatell-Tortajada, et al; Oral supplementation with a nutraceutical formulation containing omega-3 fatty acids, vitamins, minerals, and antioxidants in a large series of patients with dry eye symptoms: results of a prospective study; Clin Int Aging 2016; 11:571-578.
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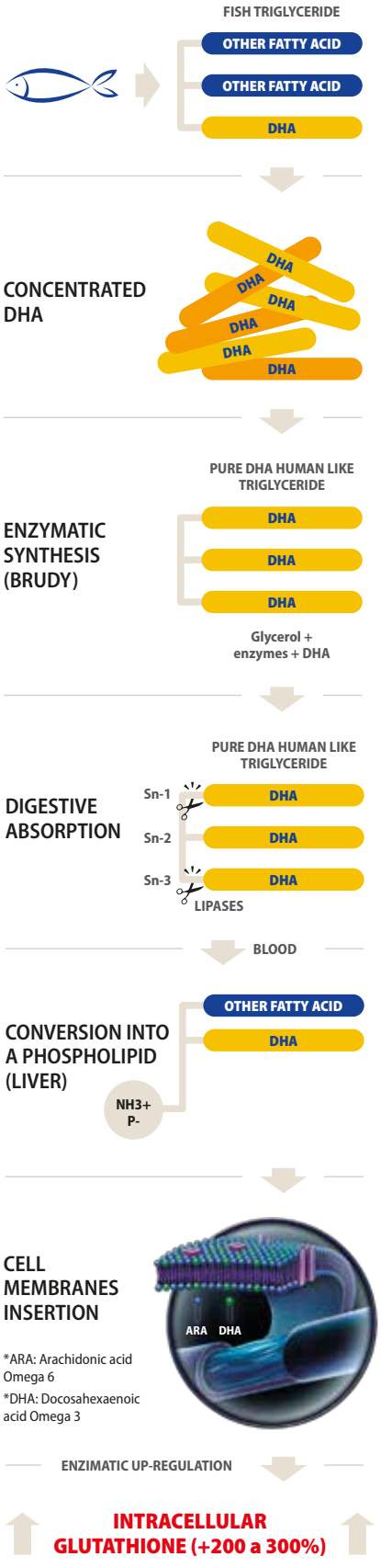
13. Elena Rodriguez, et al; Suplementación dietética con ácido docosahexaenoico (DHA) en la retinopatía diabética no proliferativa: estudio prospectivo controlado de la función macular mediante microperimetría; Comunicación Congreso de la SERV, Viernes 3 Marzo, 2017.
14. JC Martinez-Soto, et al; Effect of dietary DHA supplementation on sperm DNA integrity; Fertility & Sterility 2010, S235-6.
15. JC Martinez-Soto, et al; Dietary supplementation with docosahexaenoic acid (DHA) improves seminal antioxidant status and decreases sperm DNA fragmentation; Systems Biology in Reproductive Medicine, 62(6):387-395, DOI: 10.1080/19396368.2016.1246623.
16. Guzman JF, et al; DHA- rich fish oil improves complex reaction time in female elite soccer players; Journal of Sports Sci Med 2011;10:301-5.
17. Carlos J Contreras; Modificación del daño oxidativo en un grupo de ciclistas tras consumir ácido docosahexaenoico a distintas dosis; Tesis Doctoral, Universidad Católica de Murcia, 2014.



The 10 steps

to convert fish triglycerides into DHA-Triglycerides having DHA in central (Sn-2) position, as the ones mostly found in human maternal milk:

01 Obtaining tuna fish triglycerides.

02 Fatty acids different from DHA are eliminated.

03 Heavy metals and pollutants are eliminated by double distillation.

04 Concentrating DHA.

05 Ethanol is eliminated.

06 Triglycerides having central DHA are being synthetized.

07 Digestive lipases are only able to break bonds in Sn-1 and Sn-3 position.

08 Monoglycerides with central DHA are absorbed intact to blood.

09 They are converted inside the body into DHA rich phospholipids, and being inserted into cell membranes.

10 Stimulating oxidative protection of the cell (BRUDY TECHNOLOGY PATENT: DHA present in the cell membrane **stimulates glutathione synthesis**[1,2] up to 200-300% from its normal levels in the cell's cytoplasm). This is the main antioxidant, electron donor, in mammal cells.

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The information content is exclusively addressed to healthcare professionals

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